UNITED STATES POSTAL SERVICE®

Hazardous, Restricted, and Perishable Mail

Reference #

Publication 52

Document Category

Policy

Content

This document provides important information to help mailers determine what may be mailed and how certain items must be packaged to keep the mail safe. It also provides guidance to Postal Service™ employees accepting this mail.

Owner

Chief Customer and Marketing Officer and Executive Vice President

Issue Date

August 2026

Summary of Major Changes

This policy supersedes the February 2026 edition of Publication 52, Hazardous, Restricted, and Perishable Mail.

- Added recommended delivery-expectation text to be added to mailpiece for day-old poultry.
- Revised mail class availability, packaging, marking and labeling requirements for certain mailable dangerous goods in the Postal Service international mailstream.

Availability.

This document is available for Postal Service employees at *http://blue.usps.gov*.

Address questions about this policy to the owner.

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1 Introduction

11 Purpose

111 General

Certain potentially undesirable, harmful, or dangerous matter is nonmailable by statute or regulation. The purpose of this publication is to provide policy and information regarding mailing potentially hazardous, restricted, or perishable matter to domestic and international destinations. This publication also outlines the policy for nonmailable articles and substances, as well as the special conditions under which some may be mailed. The regulations apply to the military postal system, its employees, and undelivered mail in official custody. Regulations for nonmailable matter in written, printed, or graphic form are found in the *Domestic Mail Manual* (DMM) 601.8.0, 508.9.0, and 508.10.0.

112 Use

This publication serves as a resource for mailers, shippers, customers, and Postal Service employees involved in providing mailability information to customers. The policies in this publication inform determinations on whether, and under which conditions, hazardous, restricted, and perishable items may be mailed.

The content reflects former DMM standards now incorporated here, as well as the federal agency regulations effective at the time of publication. Future updates to federal regulations may supplement, amend, or supersede this publication's content.

113 Other Reference Sources

No single guide covers all details for the safe handling of every hazardous, restricted, or perishable item.

Mailers must also comply with non-Postal statutes and regulations concerned with possession, treatment, transmission, or transfer of such matter (e.g., 49 CFR § 100-185 [Department of Transportation Regulations]; the Comprehensive Drug Abuse Prevention and Control Act of 1970 [Public Law 91-513], 21 U.S.C. § 801, et seq.; and the Gun Control Act of 1968 [Public Law 90-618], 18 U.S.C. § 921, et seq.).

Exhibit 113 provides abbreviations for key sources commonly cited throughout this document.

Exhibit 113
Key Reference Abbreviations

Abbreviation	Full Reference
ASM	Administrative Support Manual
CFR	Code of Federal Regulations
DMM	Mailing Standards of the United States Postal Service, Domestic Mail Manual
DOT	Department of Transportation
FAA	Federal Aviation Administration
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMM	Mailing Standards of the United States Postal Service, International Mail Manual
POM	Postal Operations Manual
U.S.C.	United States Code

For a complete list of sources, refer to Appendix E.

12 Scope

121 General

The scope of this publication extends to all articles and materials that are considered hazardous, restricted, or perishable. Certain hazardous materials and otherwise restricted and perishable matter may be mailed under the conditions permitted within this publication.

Certain matter is nonmailable because it may harm people or property or has mailing restrictions imposed upon them by the regulations of other governmental agencies.

If you knowingly mail items or materials that are dangerous or injurious to life, health, or property or fail to follow Postal laws on mailing hazardous materials in violation of 39 U.S.C § 3018 and 18 U.S.C. § 1716, you may be liable for:

- A civil penalty per violation; refer to 39 CFR § 233.12 for values.
- Cost of any cleanup associated with each violation.
- Damages.
- Criminal penalties.

Postal Service employees should refer to DM-601-1, *Civil Enforcement Authority for Hazardous Materials*.

122 Definitions

Matter is nonmailable when it does not meet the Postal Service mailability standards provided in this publication, the DMM, IMM, Postal Bulletin, and non-Postal regulations, which includes, but is not limited to, quantity, labeling and packaging, illegible, incorrect, or insufficient address, or when it does not meet Postal Service standards for mail preparation, classification, postage prices, size, or weight.

Except as provided in this publication, any article, composition, or material is nonmailable if it can kill or injure another or injure the mail or other property. Harmful matter includes, but is not limited to:

a. All types and classes of poisons, including controlled substances.

b. All poisonous animals except scorpions mailed for medical research purposes or for the manufacture of anti-venom (or antivenin or antivenene); all poisonous insects; all poisonous reptiles; and all types of snakes, turtles, and spiders.

c. All disease germs or scabs.

d. Explosives, flammable material, infernal machines, and mechanical, chemical, or other devices or compositions that may ignite or explode.

The definitions of hazardous materials, restricted matter, and perishable matter are as follows:

a. **Hazardous Material (HAZMAT)**: Items or substances likely to harm Postal Service employees or to destroy, deface, or otherwise damage mail or postal equipment. This includes materials such as caustic poisons (acids and alkalis), oxidizers, or highly flammable liquids, gases, or solids; or materials that are likely, under conditions incident to transportation, to cause fires through friction, absorption of moisture, or spontaneous chemical changes or from retained heat from manufacturing or processing, including explosives or containers previously used for shipping high explosives with a liquid ingredient (such as dynamite), ammunition, fireworks, radioactive materials, matches, or articles emitting obnoxious odors.

   Note: In international commerce, hazardous materials are referred to as "dangerous goods" (DG).

b. **Restricted Matter:** Articles or substances prohibited or limited by Title 18, U.S. Code (liquors, abortive and contraceptive devices, odd-shaped items in envelopes, motor vehicle master keys, and locksmithing devices). It also includes matter not otherwise described in this publication that is restricted by 18 U.S.C. § 1716(a) because it may, under conditions encountered in the mail, be injurious to life, health, or property (obnoxious odors, liquids, powders, and battery-powered devices). Restricted matter includes intoxicating liquors, firearms, construction materials, certain liquids, powders, controlled substances, hemp products, sharp objects, tobacco products, and unsolicited promotional items.

c. **Perishable Matter:** Anything that can deteriorate in the mail and thereby lose value, create a health hazard, or cause an obnoxious odor, nuisance, or disturbance, under ordinary mailing conditions.

Mailable perishable matter may be sent at the mailer's own risk when it is packaged as required and when it can be delivered within appropriate and reasonable time limits to prevent deterioration. Perishable matter includes mailable dead animals, live animals, meat products, and plants.

123 Mailability Premise

123.1 Basic Premise

The basic premise of the Postal Service mailability statutes is that anything which may kill or injure another or injure the mail or other property is nonmailable. This publication summarizes the statutory prohibitions and exceptions; details the mailability standards that apply to perishable, hazardous, and restricted matter; contains information on the mailability of specific hazardous materials; and describes the conditions of preparation and packaging under which the Postal Service accepts for mailing potentially harmful matter that is otherwise nonmailable.

While the Postal Service makes every effort to inform customers about the mailability of particular harmful matter, it is the responsibility of the mailer to fully comply with requirements. Refer to 212.

Postal Service personnel are authorized to determine whether articles or matter are nonmailable. Refer to 213 for authority of postal personnel.

13 Safety and Protection of Postal Personnel

The Postal Service's primary purpose in requiring proper packaging, labeling, and deposit of mailable hazardous materials, restricted or perishable matter, is to ensure the safety of Postal Service employees, equipment, facilities, and the general public who may come into contact with these items.

Postal Service employees may take all reasonable and necessary steps to protect fellow employees and equipment from potentially dangerous or injurious materials, or substances found in the mail, as stated in the *Administrative Support Manual* (ASM) 223.4. Postal Service employees may refuse an article for mailing if the content of the article is described by the mailer or otherwise revealed to be nonmailable.

14 Military Postal System

Unless excepted, this policy applies to the military Postal system, its personnel, and undelivered mail that is or has been in the official custody of that system and its personnel. References to the Inspection Service refer to the Postal Inspection Service and its authorized employees, not to military investigative services.

15 Wire Communication Devices

Statute 18 U.S.C. § 2510, et seq., makes it a crime for a person to intentionally mail any device whose design that person knows, or has reason to know, is useful for secret interception of wire, oral, or electronic communications. While the statute does not declare that such a device constitutes as nonmailable matter, it does provide criminal penalties for the act of intentionally mailing it.

2 General Guidelines

21 Mailability

211 General

Under 18 U.S.C. § 1716, all matter that is outwardly or of its own force dangerous or injurious to life, health, or property is nonmailable. The knowing deposit of such matter in the mail is a crime punishable by fine, imprisonment, and/or other penalty.

Certain hazardous, restricted, or perishable matter are mailable when the requirements in this publication are met. These requirements can be found in the following sections of this publication:

a. **Chapter 3, Appendix A, Appendix C:** Hazardous materials mailing conditions.

b. **Chapter 4:** Restricted matter mailing conditions.

c. **Chapter 5:** Perishable matter mailing conditions.

d. **Chapter 6:** International dangerous goods, perishable, and restricted mailing conditions, including Army Post Office, Fleet Post Office, and Diplomatic Post Office (APO/FPO/DPO) addresses.

e. **Chapter 7:** Mailing conditions via air transportation.

212 Mailer Responsibility

All mailers, including mail service providers and other mailer agents, must comply with all applicable laws and regulations, and Postal Service policies governing mailability and preparation for mailing, as well as non-Postal laws and regulations on the shipment of particular matter. Mailers, shippers, and customers are responsible for staying updated on regulations adopted by the Postal Service and other governmental agencies.

213 Authority of Postmasters

A postmaster has the authority to decide whether articles and substances other than written, printed, or graphic matter are nonmailable and, where appropriate, is authorized to refuse to accept for mailing such matter determined to be nonmailable. Postmasters may consult with the Pricing and Classification Service Center (PCSC) in making these determinations.

Pricing Classification Service Center
90 Church St Ste 3100

New York NY 10007-2951
Telephone: (212) 330-5300 / Fax: (212) 330-5320 / Email: PCSC@usps.gov

214 Appeals

Mailers may appeal a postmaster's decision by filing a written appeal with the PCSC, which issues the initial agency ruling. After the PCSC issues an initial ruling, the mailer may appeal to the director, Product Classification, USPS Headquarters, Washington, DC, who has the authority to render a decision on the appeal.

Director, Product Classification
U.S. Postal Service
475 L'Enfant Plaza SW Rm 4446
Washington DC 20260-5015
Email: productclassification@usps.gov

Mailers may file a written appeal of a final Postal Service agency decision with the Postal Service Recorder, Judicial Officer, under the rules of procedure in 39 CFR § 953.

Recorder
Judicial Officer
U.S. Postal Service
2101 Wilson Blvd Ste 600
Arlington VA 22201-3078

215 Requests for Rulings

215.1 General

Mailability decisions are based on Postal Service policies in effect at the time of the ruling. Rulings may consider other governmental agency standards, provided they align with Postal Service policies and authority. Some rulings may become obsolete or require modification to conform to changes in applicable laws and regulations.

Requests for rulings must contain specific items of critical information appropriate to the category of the material, as noted in 215.2, 215.3, and 324.

215.2 Hazardous Materials

Acceptability for mailing hazardous materials depends on many factors, such as the container fluid or vapor capacities, the ability of the mailpiece to fully contain the material, and its capacity to absorb and contain the material in case of leakage.

To determine mailability, mailers must provide a Safety Data Sheet (SDS), formerly known as Material Safety Data Sheet (MSDS), along with detailed information about the material to the Post Office or acceptance facility. This includes chemical composition, hazards, packaging, and other relevant details. If information is insufficient to determine mailability or if the item's mailability is uncertain, mailers may submit an SDS and the following information to Product Classification (refer to 214 for contact information) or the PCSC (refer to 213 for contact information):

a. Common and proper shipping name of the material, hazard class, and the assigned United Nations (UN) or North American (NA) identification number.
b. Chemical composition by percentage of weight.
c. Flashpoint.
d. Toxic properties.
e. Irritant action when inhaled, swallowed, or with contact to skin or eyes.
f. Special precautions necessary to permit handling without harm to USPS employees or damage to property or other mail.
g. Explanation of warning labels and shipping papers required by local, state, or federal regulations.
h. Description of the proposed packaging method, including the addressing, required markings, and documentation.
i. Volume of material per mailpiece, proposed number of pieces to be mailed, class of mail, and post office(s) of mailing.

Hazards associated with chemicals and other hazardous materials may not be immediately evident. Materials classified under one hazard class can pose additional risks typically linked to a different hazard class (e.g., swimming pool chemicals may cause fires, release poisonous fumes, or be corrosive or toxic). Therefore, determining mailability requires an accurate identification of the material based on mailer-supplied documentation (i.e., the SDS and additional information), and general designations should not be assumed without verified information.

215.3 Restricted Matter or Perishable Matter

To determine mailability, mailers must provide detailed information about the matter to the Post Office or acceptance facility. This includes hazards (if applicable), packaging, and other relevant details. If information is insufficient to determine mailability or if the item's mailability is uncertain, mailers may contact Product Classification (refer to 214 for contact information) or the PCSC (refer to 213 for contact information):

a. Detailed description of the restricted or perishable matter.
b. Special precautions necessary to permit handling without harm to Postal Service employees or damage to property.
c. Proposed method of packaging.
d. Explanation of any local, state, or federal regulations that apply to shipping such matter.
e. Quantity per mailpiece and per mailing, frequency of mailing, and post office(s) of mailing.

216 Nonmailable Matter Found in the Mail

Specific items, such as firearms, switchblade knives, controlled substances, motor vehicle master keys, and explosive or incendiary devices, generally are prohibited for mailing. When these types of nonmailable items are found in the mailstream, they must be handled in accordance with the *Postal*

Operations Manual (POM) 139.117, by referring to the Postal Inspection Service.

Other materials found in the mail that are believed to be nonmailable must be treated under the applicable conditions in POM 139.117-18 and ASM 223.4.

22 Marking Requirements

221 General

To avoid rejection by Postal Service personnel or air carriers, mailers must ensure that their packages comply with all labeling, marking, and ancillary endorsement requirements.

221.1 Address Side of Mailpiece

Hazardous, restricted, or perishable items-except for firearms (refer to 432.1(c)), switchblade knives (refer to 443.2), motor vehicle master keys (refer to 452.3), controlled substances (refer to 453.4(a)), and certain drugs eligible for mail-back programs (refer to 453.71(a))-must be clearly marked and labeled on the address side of the mailpiece (refer to 325.1 and DMM 102.1.1 and 202.1.1). Other markings required by the Postal Service or other federal regulatory agencies also must appear on the address side of any mailpiece containing hazardous, restricted, or perishable matter as specified in 325.1. These markings must be made with an insoluble material or other material that cannot be rubbed off or smeared.

Only in limited situations where sufficient space does not exist, DOT markings may be placed on a side adjacent to the address. Markings and labels must not be placed on the bottom of a package or envelope.

221.11 Return Address

Except for diagnostic specimen mailpieces using *Business Reply Mail* format and nonregulated materials, all packaging containing hazardous, restricted, or perishable items must include a domestic return address with the sender's name and address.

221.12 Content Markings

Except for certain restricted matter specified in Chapter 4 (refer to reference list in 221.1), the contents must be clearly identified on the address side to ensure the item is mailable. A mailability determination may be required based on the mailer's disclosure concerning the contents at the time of mailing.

221.2 Ancillary Endorsements

Mailers may use an endorsement to request forwarding, return, or address-correction services for undeliverable items (refer to 325.2 and DMM 507.1.5).

221.3 Barcodes

All packages, including those containing hazardous, restricted, or perishable items, must display an *Intelligent Mail* package barcode (IMpb) and an Intelligent Mail matrix barcode (IMmb). Refer to DMM 204.2.0.

222 Other Postal Service Labels and Tags

Additional tags may be used on the packaging to identify contents.

223 Orientation Markings for Packages and Containing Liquids

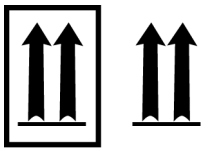
Packages containing liquids or spillable materials exceeding 4 ounces must display orientation arrows.

These packages must adhere to the following:

a. The closure of the primary receptacle must be positioned upright.

b. The outer packaging must be clearly and legibly marked on two opposite sides with orientation markings consisting of two underlined arrows indicating the correct upright position (refer to Exhibit 223).

Exhibit 223
Package Orientation Markings



Note: Either design is acceptable.

224 Old Markings

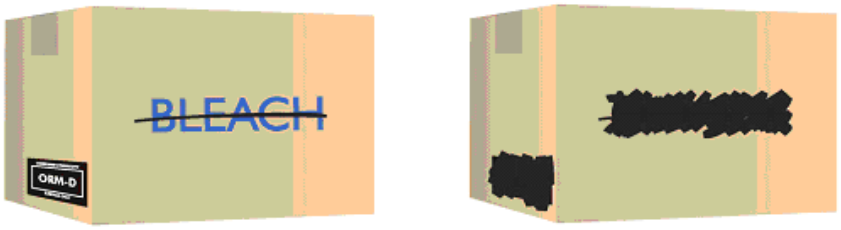
A mailpiece displaying any image, text, or label that does not reflect actual contents is not acceptable for mailing. Certain hazardous, restricted, and prohibited materials are nonmailable by statute or regulation. For safety and legal compliance, the Postal Service must assume that all markings and labels on a package accurately reflect its contents.

Reused packaging, boxes, and containers with labels or markings associated with hazardous, prohibited, or restricted materials must have those labels or markings fully removed or obliterated (refer to Exhibit 224). If they remain legible, the packaging may be considered nonmailable and will be treated as containing the indicated materials.

Postal Service employees are not permitted to alter or remove labels or markings, even if requested to do so by the mailer. Only the mailer or their authorized representative may do so.

Common examples of reused packaging include boxes for cleaning supplies or alcoholic beverages. Many cleaning products are classified as hazardous materials and are prohibited from mailing; alcohol is classified as restricted and is prohibited from mailing.

Exhibit 224
Reused Packaging



Incorrect Procedure **Correct Procedure**

23 Handling Hazardous, Restricted, and Perishable Materials

231 General

Potentially dangerous situations exist whenever hazardous, restricted, or perishable materials are moved. Careless handling can result in serious injury to the public and Postal Service personnel, damage to other mail and Postal Service equipment, and delays in processing and delivery.

Refer to POM 139.117-118 for instructions on handling hazardous materials in the mail.

Refer to DM-601-2, *Hazardous Material Acceptance and Handling Policy*.

232 Nonmailable Hazardous Materials Found in the Mailstream

When any mailpiece containing a nonmailable hazardous material is found in the mailstream, the procedures in POM 139.117 must be followed if the materials present an immediate threat to persons or property. When there is no immediate threat to persons or property, follow the procedures in POM 139.118.

24 Emergency Procedures

241 General Requirements

Incidents involving the release of hazardous, restricted, or perishable matter may cause death, injury, and damage to property. Such incidents can be mitigated or avoided by taking preventive measures and following appropriate emergency procedures.

The guidelines in MI EL-810-2019-5, *Response to Hazardous Materials Releases*, and Handbook EL-812, H*azardous Materials and Spill Response*, provide essential protocols for Postal Service employees involved in handling mailpieces containing harmful substances. Postal Service employees must follow these guidelines from the point of deposit to the point of delivery.

242 Harmful Matter Exposure

While many incidents are easily managed without significant harm, some can have delayed or less obvious effects. Exposure to infectious substances, radioactive materials, corrosives, or poisons can result in illness or injury, which may develop gradually or long after the incidents.

243 Precautions

In the event of a spill, leak, or damage involving harmful substances, Postal Service personnel must take the following precautions to protect themselves, other personnel, and property:

a. **Identify harmful properties** of the material based on the markings and determine the appropriate precautions.

b. **Provide personal protective equipment** to employees who must handle the material.

c. **Contain and transport leaking containers** for proper disposal.

d. **Clean and decontaminate facilities and machinery**.

Refer to MI EL-810-2019-5, *Response to Hazardous Materials Releases*, and Handbook EL-812, *Hazardous Materials and Spill Response*, for specific instructions.

244 Incident Response Procedures

When handling incidents involving harmful matter, especially if a mailpiece is damaged or suspected of damage, Postal Service personnel must:

a. **Isolate the package** immediately and restrict access to the area. If the incident occurs in a facility or on the equipment of an air carrier, immediately inform the carrier of the material's nature and quantity.

b. **Contact the supervisor or designated qualified employee** to assess whether the spill is minor (manageable by the facility's spill and leak team) or if it requires implementation of the emergency action plan. If mail sealed against inspection must be opened for this purpose, act in accordance with ASM 274.

c. **Remove injured or contaminated individuals** from the area with as little physical contact as possible:

(1) Provide only necessary first aid until qualified medical personnel arrive.

(2) Direct personnel exposed to radioactive materials to immediately wash thoroughly with cold water and seek medical attention.

d. **If the spill is determined to be an emergency**, notify the fire department, police, and other appropriate agencies.

e. **Avoid exposure to smoke, fumes, or dust** in the affected area.

f. **Do not eat, drink, or smoke/vape** in the affected area.

g. **Do not place involved areas in service** until the appropriate authorities have determined that the areas are free of all contamination.

h. **Report the incident** to the PCSC (refer to 213 for contact information) or Postal Service Inspection Service and file an online Mailpiece

Incident Report (MIR) for spills, leaks, or hazardous, restricted, or perishable material. These must be filed using the *Mail Incident Report Toolkit* (*MIRT*) according to incident type

Refer to Handbook EL-812, *Hazardous Materials and Spill Response* for specific procedures.

245 Hazardous Chemical Emergencies

In emergencies involving chemicals, Postal Service personnel can contact CHEMTREC (Chemical Transportation Emergency Center) for 24/7 guidance. CHEMTREC provides immediate advice and follows up with the shipper for additional assistance. They do not provide on-site emergency response but may request the following information:

a. Caller's name, title and organization, and contact information.

b. Description of incident and actions taken.

c. Number and types of injuries and exposures.

d. Material detail, including product name, shipper, and destination.

e. Containers type and size, and the nature of the release.

f. Specific needs, such as MSDSs or medical assistance.

g. Location, time, and weather conditions at the scene.

CHEMTREC can be reached toll-free at 800-424-9300 within the continental U.S. or at 703-527-3887 for Virginia or international calls.

Emergency Preparedness Response and Recovery Services (EPRRS) provide broad array of services in support of the Postal Service comprehensive emergency management plans. Suppliers can be reached at the following numbers:

a. **WSP USA Solutions Inc.** (4ANPCO-20-B-0004)
Emergency 24-hour phone number: 1-888-669-8777

b. **Weston Solutions Inc.** (4ANPCO-20-B-0005)
Emergency 24-hour phone number: 1-877-227-9791

c. **Tetra Tech Inc.** (4ANPCO-20-B-0006)
Emergency 24-hour phone number: 1-916-853-4599

246 Emergency Telephone Numbers

For additional emergencies during regular business hours, the following numbers are available:

a. **Centers for Disease Control and Prevention (CDC)** (for biohazards): 404-633-5313

b. **CHEMTREC** (for chemical spills): 800-424-9300 or 703-527-3887

c. **CropLife America** (for herbicides, insecticides, and fungicides): 202-296-1585

d. **U.S. Department of Transportation (DOT) National Response Center** (for chemical and oil spills): 800-424-8802 or 202-267-2675 (Washington D.C. only)

25 Basic Guidelines for Postal Service Personnel

251 Guidelines for Acceptance Personnel

Postal Service personnel are not authorized to open mail sealed against inspection, except under circumstances described in ASM 274. Information about the contents of mail sealed against inspection may be obtained either directly from the mailer (e.g., a mailer may ask about mailing requirements or mark the outside of the mailpiece to indicate its contents) or indirectly (e.g., through leakage or other escape of the contents). When handling mail that may contain hazardous, perishable, or restricted material, personnel are required to:

a. **Assess Mailability:** Evaluate items presented at a retail or business mail entry unit (BMEU) by inspecting all sides of the mailpiece for hazardous-materials indicators (e.g., markings). Retail personnel must ask, "Do any of your articles contain anything liquid, fragile, perishable, or potentially hazardous, such as lithium batteries, perfume, mercury or aerosols?"

b. **Identify Requirements:** Determine applicable quantity limits, labeling, and packaging requirements for mailable contents.

c. **Verify Separation:** Ensure hazardous materials are presented separately from other mailpieces, except for destination-entered mail (e.g., DDU/S&DC).

d. **Refuse Nonmailable Items:** Decline materials that fail to meet mailability requirements (as permitted in POM 139) and refer the circumstances to the local postmaster or PCSC for a ruling.

e. **Process Diagnostic Specimens:** Place diagnostic specimens in sacks or tubs with PS Tag 44, *Sack Contents Warning* attached for accurate processing.

252 Guidelines for Dispatch Personnel

Postal Service dispatch personnel handle hazardous, restricted, or perishable materials according to general guidelines with specific procedures based on the class and content of the mailpiece and as outlined in the POM:

a. **Prevent Damage and Hazards:** Hazardous materials, restricted matter, and perishable matter must be properly handled to avoid damage or danger.

b. **Verify Air Transport Readiness:** Only properly packaged, marked, and labeled mailpieces are tendered to the air carrier. Dispatch personnel should ensure:

   (1) **Packaging Integrity:** Packaging is strong and securely closed, with no visual evidence of leakage or damage.

   (2) **Proper Markings and Labels:** All required markings and labels are on the outer packaging.

(3) **Attach Shipping Paper:** A properly completed shipping paper is attached to the outside of the mailpiece and to the dispatch document, with information detailed in 711.3.

(4) **Handling Nonmailable Material:** If a mailpiece is suspected to contain nonmailable material, it is removed from the mailstream and handled per POM 139.117-118.

253 Guidelines for Delivery and Collection Personnel

All sides of the mailpiece must be examined for nonmailable characteristics, such as prohibited hazardous markings or leakage. If the mailpiece is nonmailable or shows signs of leaking or staining, it should not be collected. The customer should be notified, if present, and the supervisor contacted.

3 Hazardous Materials

31 Definition

Hazardous material is a designation of items that fall within one of three categories: mailable, mailable with restrictions, or prohibited.

Hazardous materials are articles or substances designated by the United States (U.S.) Department of Transportation (DOT) as being capable of posing unreasonable risks to health, safety, or property during transportation. In international commerce, hazardous materials are referred to as "dangerous goods."

For definitions of other terms that relate to hazardous materials, refer to Appendix D.

32 General

321 U.S. Department of Transportation

DOT regulates the carriage of hazardous materials within the U.S. under the *Code of Federal Regulations* Title 49 (49 CFR). These regulations provide detailed specifications for packaging, marking, and labeling hazardous materials. 49 CFR also exempts or establishes other requirements for limited quantities and small quantities of hazardous materials. Postal Service mailing standards for hazardous materials generally adhere to 49 CFR, but also include many additional limitations and prohibitions.

322 Postal Service

The Postal Service is self-regulated under Title 39 CFR and is predicated upon the conditions within U.S. Code Title 18 Section 1716 (18 U.S.C. § 1716). While mailing standards closely follow 49 CFR, the Postal Service imposes additional, more stringent limitations on mailable hazardous materials.

Hazardous materials may only be mailed under specific conditions, including quantity limitations and packaging requirements.

323 Mailer Responsibility

323.1 General

Full responsibility rests with the mailer to comply with all Postal Service and non-Postal Service laws and regulations when mailing hazardous material.

Anyone who mails, or causes to be mailed, a nonmailable or improperly packaged hazardous material may be subject to legal penalties (i.e., fines and/or imprisonment), including but not limited to those specified in 18 U.S.C. Transporting hazardous materials before entry as U.S. Mail and after receipt from the Postal Service is subject to DOT regulations.

Mailers must identify whether a shipment contains hazardous materials when generating the label, including Postal Service-generated labels (e.g., from USPS Application Programming Interfaces (API), Click-N-Ship, or Merchant Returns Application).

The mailer is responsible for accurately identifying the flashpoint, toxicity, corrosive, or any other hazardous properties before determining mailability.

323.2 Service Type Codes

A Service Type Code (STC) is a three-digit code that identifies the type of product or service used for a Postal Service package and designates the contents as hazardous materials. Mailers are required to use a unique STC within the *Intelligent Mail* package barcode (IMpb) and the Intelligent Mail matrix barcode (IMmb) for each domestic outbound and return package that contains hazardous materials, regardless of whether the mail is entered at origin or destination -except for packages destined for Army Post Office, Fleet Post Office, and Diplomatic Post Office (APO/FPO/DPO) locations, U.S. Possessions, Territories, and Freely Associated States (FAS), excluding Puerto Rico. The STC must correspond to the product being shipped.

Mailers must also use the STC that indicates the product and extra service if they purchase an eligible extra service. However, combining multiple extra services (e.g., signature confirmation and insurance less than or equal to $500) is prohibited when mailing hazardous materials.

A full list of HAZMAT STCs can be found in Appendix G and Publication 199.

323.3 Extra Service Codes

Mailers tendering packages that contain hazardous materials to the Postal Service must use Extra Service Code (ESC) 857. Mailers tendering domestic packages may optionally use one of 23 unique content-specific ESC for outbound and return packages that corresponds to the specific category of hazardous material contained within the mailpiece. If one of the content-specific ESC is used, then ESC 857 may be omitted when not enough extra-service code fields are available for the package details.

A full list of ESCs can be found in Appendix G and Publication 199.

Note: While using the content-specific ESC is currently a recommended practice, the Postal Service may make this requirement mandatory in the future.

323.4 Shipping Service File

Mailers shipping hazardous materials domestically utilizing *PC Postage or USPS Ship* platforms must incorporate the applicable STC and/or ESC listed in Appendix G and Publication 199 and transmit a Shipping Services File (SSF), using Version 1.7 or higher, or Shipping Partner Event File (SPEF), using Version 5.0 or higher, to the Postal Service before, or concurrent with tendering any hazardous materials shipments.

323.5 Legacy Postage and Hard-Copy Postage Statements

In cases where legacy postage meters or hard-copy postage forms are used, mailers must present hazardous materials shipments directly at a Postal Service retail or business mail entry unit.

324 Mailability Rulings

For information on how to request a mailability ruling for a specific hazardous material, follow the procedures outlined in 215.2.

325 Hazardous Materials Warning Labels, Markings, Tags, and Endorsements

325.1 General Requirements

All hazardous materials warning labels and markings, including markings required by other federal regulatory agencies, must be displayed on the address side of the package, including the proper shipping name and UN identification numbers, unless otherwise specified. If there is insufficient space, DOT labels or markings may be placed on an adjacent side but must never be placed on the bottom of a package or envelope.

DOT hazardous materials warning labels and markings must be:

a. Placed on the same surface as the proper shipping name and, when multiple labels are needed, they must be displayed within 6 inches of one another.

b. Printed on or affixed to a background of contrasting color or feature a dotted or solid line outer boundary.

c. Durable, weather-resistant, clearly visible, and unobscured.

d. Oriented as diamonds (diamond-shaped) and measure at least 100 mm (3.9 inches) on each side, unless otherwise specified by postal regulations.

e. Printed with solid line inner border at least 5 mm inside and parallel to the edge, with border widths of at least 2 mm.

Markings such as Limited Quantity or UN3373, Biological Substances, may be displayed within the shipping label at a reduced size if special authorization is obtained from the director, Product Classification (refer to 214 for contact information).

325.2 Ancillary Endorsements

Surface mailpieces containing hazardous materials must include one of the following endorsements:

a. "Address Service Requested"

b. "Forwarding Service Requested"

c. "Return Service Requested"

The endorsement "Change Service Requested" is not permitted for mailpieces containing hazardous materials.

325.3 Nonmailable DOT Warning Labels and Marks

The DOT warning labels shown in Exhibit 325.3 are prohibited in Postal Service networks because they contain hazardous materials-or quantities of hazardous materials-that possess too great a risk to be safely handled in the mail. These labels are prohibited in Postal Service networks unless special authorization is granted by the director, Product Classification (refer to 214 for contact information).

Exhibit 325.3

DOT Hazardous Materials Warning Labels: PROHIBITED IN THE MAIL

* Include appropriate compatibility group letter.
** Include appropriate division number and compability group letter.

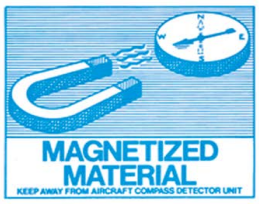
325.4 Mailable Warning Labels

Packages containing hazardous materials must display the appropriate DOT hazardous materials warning label(s) and marking(s) as outlined in 49 CFR § 172.407 through 172.446.

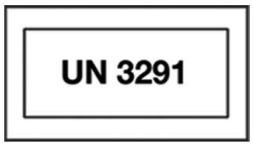
Only the following hazardous materials warning labels in Exhibit 325.4a, Exhibit 325.4b, and Exhibit 325.5 are permitted in Postal Service networks. Division 5.1, 5.2, Class 8, and Class 9 labels are permitted only when used in conjunction with a Limited Quantity air mark.

Note: The sizes and colors of the labels shown in exhibits are for reference only and do not meet DOT size and color standards unless explicitly noted.

Exhibit 325.4a
DOT Hazardous Materials Warning Labels-PERMITTED ON MAILABLE HAZARDOUS MATERIALS



Biological Substance Category B



Regulated Medical Waste

Exhibit 325.4b
DOT Hazardous Material Warning Labels-PERMITTED FOR MAILABLE LIMITED QUANTITIES ONLY

(Must only be used in conjunction with DOT limited quantity markings and only when permitted for the applicable hazard class. See 34, Mailability by Hazard Class.)

325.5 Limited Quantity Markings

When required, the DOT Limited Quantity markings for air or surface transportation must meet the following conditions:

a. The diamond-shaped marking must have black top and bottom portions with a white or contrasting center background. Refer to Exhibit 325.5.

b. Markings must be durable, legible, and unobstructed.

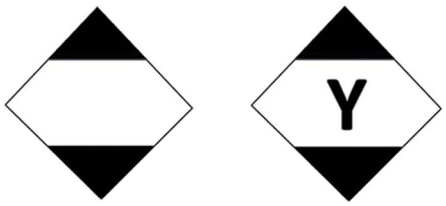
c. The minimum dimension of each side of the marking must be 100 mm (3.9 inches), with a border at least 2 mm (0.08 inches) wide, unless the package size requires a reduced size marking of no less than 50 mm (1.97 inches) on each side.

d. Incorporating a reduced-size (50 mm or 25 mm with a DOT Special Permit) limited quantity mark within the package shipping label requires prior written approval from the director, Product Classification (refer to 214 for contact information).

e. For transportation by aircraft, the air Limited Quantity mark must include a black ''Y'' in the center of the diamond-shaped mark and be clearly visible. Mailpieces intended for air transport must also display the proper shipping name, identification number, and appropriate DOT-associated marking when required for the hazard class shipped in accordance with this publication.

f. For surface transportation, a Limited Quantity ground mark (diamond-shaped) is not required to include the proper shipping name and identification number.

Exhibit 325.5
DOT Hazardous Material Warning Labels-PERMITTED FOR LIMITED QUANTITY



325.6 Excepted Quantity Labels

Hazardous materials eligible to be shipped under the excepted quantity provision, as described in 49 CFR § 173.4a and 337.2, must be prepared following *Packaging Instruction 10B* in Appendix C. Each package must display a DOT-approved excepted quantity marking, shown in Exhibit 325.6, under the following conditions:

a. The "*" is replaced by the primary hazard class or division of each of the hazardous material in the package.

b. The "**" is replaced by the name of the mail owner or mail service provider if it does not appear elsewhere on the package.

c. The marking must be at least 100 mm x 100 mm (3.9 inches) and placed durably and unobstructed on the address side of the mailpiece.

Exhibit 325.6
Excepted Quantity Marking

326 Shipping Documentation

Domestically, a shipping paper means a shipping order, bill of lading, waybill, or manifest, per 49 CFR § 171.8, which identifies hazardous materials being offered for surface transportation. Neither the Postal Service nor DOT stocks or furnishes shipping documentation. It is the responsibility of the mailer to obtain shipping documentation from commercial printers, internet-based retailers, safety supply stores, or stationery stores.

Shipping papers are referred to as a Shipper's Declaration for Dangerous Goods when being offered for air transportation according to the Dangerous Goods Regulations of the International Air Transport Association (IATA).

Except for sharps and regulated medical waste (refer to Exhibit 346.322), shipping documentation must be properly prepared according to 49 CFR § 172.200 through 172.205 as follows:

a. Completed and signed in triplicate by the mailer.

b. Enclosed in an envelope, or similar carrier, that can be easily opened and resealed, and securely affixed to the outside of the mailpiece to allow access to the document during inspection.

Shipping documentation is required as follows:

a. **Air Transportation:** Most mailable hazardous materials sent by air must be accompanied by shipping documentation. Refer to the appropriate sections and Packaging Instruction in Appendix C for requirements.

b. **Surface Transportation:** Certain hazardous materials sent by surface transportation may require shipping documentation. Refer to the appropriate sections and the Packaging Instruction in Appendix C for requirements.

327 Transportation Requirements

327.1 General

Postal Service hazardous materials regulations are based on the mode of transportation (air or surface); therefore, compliance with the specific mode of transportation is required.

327.11 Air Transportation

Hazardous materials shipped via *Priority Mail Express* or *Priority Mail* must be eligible for air transportation and meet the following requirements:

a. Mailpieces must be prepared according to the applicable *Packaging Instructions* in Appendix C.

b. Mailpieces must be properly packaged and labeled in compliance with both *Domestic Mail Manual (DMM)* requirements and the carrier's operator variations.

c. If applicable, the shipping documentation must be affixed to the outside of the mailpiece.

Note: Mailable hazardous materials that are prohibited from air transportation may not be sent as *Priority Mail Express* or *Priority Mail*.

327.12 Air Transportation Prohibitions

All mailable hazardous materials sent as *Priority Mail Express* or *Priority Mail* must meet the requirements for air transportation, regardless of the transportation method used. The following types of hazardous materials are always prohibited on air transportation:

a. Explosives.

b. Anything susceptible to damage or that can become harmful because of changes in temperature or atmospheric pressures unless protected against the effects of such changes.

c. Magnetic material that has a field strength sufficient to cause a compass deviation at a distance of 7 feet or more from any point on the outer packaging.

d. Flammable materials (gases, liquids, and solids).

e. Radioactive materials.

f. UN3090 lithium metal batteries (including lithium alloy batteries) and UN3480 lithium-ion batteries (including lithium polymer batteries).

g. Used, damaged, or defective electronic devices (excluding devices that are new in original packaging, and manufacturer-certified new or refurbished devices) containing or packaged with lithium batteries (refer to 349.21(e)). For those ZIP Codes that are air transportation only due to the absence of ground transportation, a multimodal-transportation solution may be used to transport used, damaged, or defective electronic devices containing or packed with lithium batteries. Refer to Appendix F for a list of 5-digit ZIP Codes where this exception applies.

h. Materials prohibited by DOT regulations or specific state/country air carrier operator variations.

327.13 Surface Transportation

For hazardous materials shipped via ground or vessel, mailers must meet the applicable surface transportation requirements and the applicable surface transportation Packaging Instructions in Appendix C. Hazardous materials designated for surface transportation must not, under any circumstances, be transported by air, except as provided for certain exceptions listed in 327.12(g).

328 Postal Service Hazardous Materials Table

Appendix A, *Hazardous Materials Table: Postal Service Mailability Guide*, contains a modified version of the DOT Hazardous Materials Table found in 49 CFR § 172.101. Appendix A lists the hazardous materials from 49 CFR and identifies eligibility for mailing in the domestic mail via air and surface transportation. This table can be used to determine the mailability of a hazardous material if the proper shipping name of the material is known.

When only the UN number is known, Appendix B, *Numerical Listing of Proper Shipping Names by Identification (ID) Number*, can be used to locate a proper shipping name for cross-referencing back to Appendix A. The mailability information in Appendix A is based on the DOT requirements and Postal Service mailability policy. The table does not include specific information for international mail because almost all hazardous materials are prohibited in international mail. Refer to Chapter 6 for specific requirements that apply to international mail.

329 Presentation of Hazardous Materials Mailing

Except for destination-entered mail (e.g., DDU/S&DC), each mailer of mailable hazardous materials requiring a label or marking must do the following:

a. Where mailpieces are tendered in containers, pallets, or other mail transport equipment (refer to Handbook PO-502, *Mail Transport Equipment*), hazardous-materials mailpieces must be presented in a separate receptacle from non-hazardous-materials mailpieces..

b. Clearly mark an exterior side of all containers with hazardous- materials mailpieces as "HAZMAT."

33 Hazard Classes

331 Nine Classes

Every hazardous material is assigned to one of nine hazard classes in 49 CFR § 172.101 as defined in 49 CFR § 173. The nine hazard classes are as follows:

a. **Class 1:** Explosives.

b. **Class 2:** Gases.

c. **Class 3:** Flammable and Combustible Liquids.

d. **Class 4:** Flammable Solids.

e. **Class 5:** Oxidizing Substances, Organic Peroxides.

f. **Class 6:** Toxic Substances and Infectious Substances.

g. **Class 7:** Radioactive Materials.

h. **Class 8:** Corrosives.

i. **Class 9:** Miscellaneous Hazardous Materials.

Some of these classes are subdivided into divisions based on their physical or chemical properties. Exhibit 331 summarizes the mailability of hazardous materials by class.

Exhibit 331
DOT Hazard Classes and Postal Mailability

Class	Name of Hazard Class (and Division when applicable)	Domestic Mail		International Mail and APO/FPO/DPO Mail
		Air Transportation	Surface Transportation	
1	**Explosives**			
	Division 1.1: Mass Explosive Hazard	Prohibited	Prohibited	Prohibited
	Division 1.2: Projection Hazard	Prohibited	Prohibited	Prohibited
	Division 1.3: Fire and/or Minor Blast/ Minor Projection Hazard	Prohibited	Prohibited	Prohibited
	Division 1.4: Minor Explosion Hazard	Prohibited	Only with prior HQ approval per 341.2(c)	Prohibited
	Division 1.5: Very Insensitive with Mass Explosion Hazard	Prohibited	Prohibited	Prohibited
	Division 1.6: Extremely Insensitive; No Mass Explosion Hazard	Prohibited	Prohibited	Prohibited
2	**Gases**			
	Division 2.1: Flammable Gases	Prohibited	Only Limited Quantity Surface material per 342	Prohibited
	Division 2.2: Nonflammable Gases	ID8000 material per 342	Only Limited Quantity Surface material per 342	Prohibited
	Division 2.3: Toxic Gases	Prohibited	Prohibited	Prohibited
3	**Flammable and Combustible Liquids**			
	All Flammable Liquids	Prohibited	Only Limited Quantity Surface material per 343	Prohibited
	All Combustible Liquids	ID8000 material per 343	Only Limited Quantity Surface material per 343	Prohibited
4	**Flammable Solids**			
	Division 4.1: Flammable Solids	Prohibited	Only Limited Quantity Surface material per 344	Prohibited
	Division 4.2: Spontaneously Combustible	Prohibited	Only Limited Quantity Surface material per 344	Prohibited
	Division 4.3: Dangerous When Wet	Prohibited	Only Limited Quantity Surface material per 344	Prohibited
5	**Oxidizing Substances, Organic Peroxides**			

Exhibit 331
DOT Hazard Classes and Postal Mailability

Class	Name of Hazard Class (and Division when applicable)	Domestic Mail		International Mail and APO/FPO/DPO Mail
		Air Transportation	Surface Transportation	
	Division 5.1: Oxidizing Substances	Only Limited Quantity Air material per 345	Only Limited Quantity Surface material per 345	Prohibited
	Division 5.2: Organic Peroxides	Only Limited Quantity Air material per 345	Only Limited Quantity Surface material per 345	Prohibited
6	**Toxic Substances and Infectious Substances**			
	Division 6.1: Toxic Substances	ID8000 material per 346; other poisons as permitted in 346.21	Only Limited Quantity Surface material per 346; other poisons as permitted in 346.21	Prohibited
	Division 6.2: Infectious Substances	Only as permitted in 346	Only as permitted in 346	Only First-Class Package International Service with Registered Mail service per 622
7	**Radioactive Material**	Prohibited	Only per 347	Only First-Class Package International Service with Registered Mail service per 622
8	**Corrosives (Liquids and Solids)**	Only Limited Quantity Air material per 348	Only Limited Quantity Surface material per 348	Prohibited
9	**Miscellaneous Hazardous Materials** ID8000 materials, UN3077, UN3082, UN3334, or UN3335 materials	ID8000 material and other materials as permitted in 349	Only Limited Quantity Surface material and other materials as permitted in 349	Prohibited, except for magnetized materials per 349 and 622.4 and lithium batteries per 622.5

332 Limited Quantity

A Limited Quantity refers to the maximum amount of a specific hazardous material that is exempt from DOT labeling or packaging requirements under 49 CFR. To be eligible to ship under the DOT Limited Quantity provision, a hazardous material must indicate an exception in column 8A of the Hazardous Materials Table (49 CFR § 172.101).

Under Postal Service requirements, only certain hazard classes and divisions are eligible to ship as Limited Quantity. Eligible materials may be shipped via ground (surface), and in some instances, air transportation, but only if reclassified as a Consumer Commodity material. This classification is limited to domestic use and is prohibited for international mail.

It is the responsibility of the mailer to know the correct DOT hazard class of a hazardous material before mailing (refer to 323).

When assistance is needed to determine eligibility for mailing, the mailer may request a ruling from the Pricing and Classification Service Center (PCSC) as outlined in 215.

333 Consumer Commodity

Consumer Commodity is a hazardous material that is packaged and distributed in a quantity and form intended or suitable for retail sale and designed for consumption by individuals for their personal care or household uses. This term can also include certain drugs or medicines.

Not all Limited Quantity materials qualify as Consumer Commodities. Hazard Classes 5, 8, and portions of Class 9 are excluded from the Consumer Commodity category for air transportation. (refer to 334). The Consumer Commodity category is unique to the U.S., and its use is prohibited with international mail.

It is the responsibility of the mailer to know the correct DOT hazard class of a hazardous material before mailing (refer to 323).

When assistance is needed to determine eligibility for mailing, the mailer may request a ruling from the PCSC as outlined in 215.

334 Limited Quantity Air Materials

The Limited Quantity Air classification applies to specific hazardous materials in Classes 5, 8, and 9 that are permitted by the Postal Service for air transport. This classification is limited to domestic use and is prohibited for international mail.

It is the responsibility of the mailer to know the correct DOT hazard class of a hazardous material before mailing (refer to 323).

When assistance is needed to determine eligibility for mailing, the mailer may request a ruling from the PCSC as outlined in 215.

335 ID8000 Materials

Certain hazardous materials in Classes 2 and 3 and Division 6.1 may qualify as consumer commodity subject to the applicable 49 CFR requirements and are reclassed as ID8000 when authorized to be carried on passenger aircraft. This classification is limited to domestic use and is prohibited for international mail.

Eligible mailpieces must be marked as follows:

a. DOT diamond-shaped marking with the symbol "Y".

b. Identification Number "ID8000".

c. Proper shipping name: "Consumer Commodity".

d. DOT Class 9 warning label.

336 Limited Quantity Surface Materials

This classification is only applicable for certain materials that pose a limited hazard during transportation due to their form, quantity, and packaging and includes materials previously classified as Other Regulated Materials for Domestic (ORM-D) (refer to Appendix D). It is intended only for domestic surface use and is prohibited for international mail.

The following restrictions apply:

a. These materials are prohibited in *Priority Mail Express* and *Priority Mail*.

b. Placing surface transportation labels or associated text markings on *Priority Mail Express* or *Priority Mail* to circumvent air transportation is prohibited.

c. These materials generally must also qualify as a Consumer Commodity to be permitted in the Postal Service network.

337 Excepted Quantity

337.1 Definition

An *excepted quantity* refers to a defined amount of a specific hazardous material that is eligible for transport aboard passenger aircraft and is exempt from most DOT requirements (e.g., packaging, marking, labeling) under 49 CFR § 173.4a. For Postal Service purposes, Classes 1, 2, 4, and 7 and Division 6.2 materials are not permitted to be sent as excepted quantity. The excepted quantity provision is applicable to domestic mail only, and its use is prohibited for international shipments or APO/FPO/DPO mail. The excepted quantity provision can be used in domestic air or surface transportation (highway, rail, or vessel).

337.2 Mailability

Only materials authorized for transport aboard passenger aircraft in accordance with 49 CFR § 172.101 and appropriately classed within one of the following hazard classes or divisions may be mailed as an excepted quantity. These include:

a. **Class 3** (Packing Groups II and III).

b. **Division 5.1** (Packing Groups II and III).

c. **Division 5.2** (but only when contained in a chemical kit, first aid kit, or polyester resin kit).

d. **Division 6.1** (Packing Group III).

e. **Class 8** (Packing Groups II and III, except for UN2803 (*Gallium*) and UN2809 (Mercury)).

f. **Class 9** (excluding UN1845 (*Carbon dioxide, solid, or dry ice*) and lithium batteries).

337.3 Additional Restrictions

Materials identified in column (b) of Appendix A as forbidden are ineligible for mailing under the excepted quantity provision, regardless of their hazard class, division, or packing group.

337.4 Quantities

The maximum amount of hazardous materials allowed in each inner (primary) packaging is as follows:

a. 30 g (1 ounce) for solids.

b. 30 ml (1 ounce) for liquids.

The total amount of hazardous materials per mailpiece is limited to:

a. 500 g (1.1 lbs.) for solids or 500 ml (0.1 gallon) for liquids in Packing Group II Class 9 materials, or Division 5.2 materials.

b. 1 kg (2.2 lbs.) for solids or 1 liter (0.2 gallon) for liquids in Packing Group III.

337.5 Packaging and Marking

Eligible hazardous materials shipped under the excepted quantity provision must adhere to 49 CFR § 337.2 and *Packaging Instruction 10B* in Appendix C. Mailpieces under the Postal excepted quantity provision must meet the package tests requirements in 49 CFR § 173.4a and include the DOT-approved excepted quantity marking (refer to 221.1 and 325.6). When applicable, include documentation as provided in 49 CFR § 173.4a(h).

338 Small Quantity

338.1 Definition

A *small quantity* refers to the maximum amount of a specific hazardous material that is eligible for domestic highway and rail transportation. These materials are exempt from most DOT requirements (e.g., packaging, marking, labeling) under 49 CFR § 173.4. Classes 1, 2, and 7, and Division 6.2 materials are not permitted to be sent as small quantity in Postal networks. This provision applies only to domestic highway and rail transportation mail and its use is prohibited to international or APO/FPO/DPO destinations.

338.2 Mailability

Only the following categories of hazardous materials are eligible to be sent under the small-quantity provision in domestic highway or rail transportation:

a. Class 3.

b. Division 4.1.

c. Division 4.2 (Packing Groups II and III).

d. Division 4.3 (Packing Groups II and III).

e. Division 5.1.

f. Division 5.2.

g. Division 6.1 (Packing Group III).

h. Class 8.

i. Class 9.

338.3 Additional Restrictions

Materials identified in Appendix A as prohibited under table columns (e), *Domestic Mail Air* and (f) *Domestic Mail Surface*, are ineligible for mailing under the small-quantity provision, regardless of their hazard class, division, or packing group.

338.4 Quantities

Each primary receptacle for eligible hazardous materials mailed under the small-quantity provision must be limited to:

a. 30 g (1 ounce) or less for solids.

b. 30 ml (1 ounce) or less for liquids.

338.5 Packaging and Marking

Eligible hazardous materials shipped under the small-quantity provision must adhere to 49 CFR § 173.4 and 338.2 and Packaging Instruction 10A in Appendix C. Each mailpiece must be clearly marked on the address side with the following words: "This package conforms to 49 CFR § 173.4 for domestic highway or rail transport only."

339 Packaging Requirements for Hazardous Materials

Hazardous materials are classified into DOT packing groups based on their level of danger during transportation. The following guidelines provide details on how hazardous materials must be packaged for mailing through the Postal Service.

339.1 DOT Packing Groups

Hazardous materials in Classes 3, 4, 5, Division 6.1, Class 8, and certain hazardous materials in Class 9 are assigned to a DOT packing group.

The packing group assigned to a hazardous material is listed in column 5 of the *Hazardous Material Table* in 49 CFR § 172.101 and in column (d) of Appendix A.

Packing group designators are always written in Roman numerals. DOT packing groups are categorized as follows:

a. **Packing Group I:** Great danger.

b. **Packing Group II:** Medium danger.

c. **Packing Group III:** Minor danger.

339.2 Postal Service Packaging Instructions

The packaging for mailable hazardous materials must comply with the appropriate instructions found in Appendix C. The correct *Packaging Instruction* for each hazardous material can be determined using Appendix A.

Mailers may not package or combine hazardous materials assigned to different hazard classes within a single mailpiece unless permitted by Postal Service standards.

339.3 USPS-Produced Packaging

USPS-produced *Priority Mail Express* and *Priority Mail* packaging supplies may not be used for shipping mailable hazardous materials. Refer to DMM 601.6.1.

339.4 Hazardous Materials Outer Packaging

Except as otherwise specified, rigid outer packaging must be used for shipments containing hazardous materials. Outer packaging, as defined in Appendix D, is the outermost enclosure that holds the primary receptacle, and if applicable, secondary packaging, which is absorbent and/or cushioning material.

When shipping hazardous materials, the following outer packaging is required:

a. **Weight Limits (≤ 20 lbs.):** Mailpieces containing hazardous materials weighing 20 pounds or less (except for item c.), must use outer packaging rated at 200 lb. burst test or 32-edge crush test strength or equivalent, at minimum.

b. **Weight Limits (≥ 20 lbs.):** Mailpieces containing hazardous materials weighing more than 20 pounds (except for item c.), must use outer packaging rated at 275 lb. burst test or 44-edge crush test strength or equivalent, at minimum.

c. **Installed in Equipment or Device:** Lithium batteries installed in the equipment or device they operate that are permitted to be mailed under 349 and 622 may utilize padded or poly bags as outer packaging, provided they are within a secondary packaging (i.e., original manufacturer's box) that can withstand a 1.2-meter drop test before being placed inside the padded or poly bag. These items must meet the following requirements:

   (1) The equipment/device must be new, or manufacturer refurbished.

   (2) The lithium batteries are afforded adequate protection by the equipment/device.

   (3) The outer packaging does not display, and is not required to display, hazardous text, markings, or labels as permitted in 349.221(d) and 622.5(g).

Note: USPS-Produced Priority Mail Express and Priority Mail packaging must not be utilized for shipping mailable hazardous materials. Refer to 339.3 and DMM 601.6.1.

34 Mailability by Hazard Class

341 Explosives (Hazard Class 1)

341.1 Definition

An *explosive* is any substance or article, including a device, that is designed to function by explosion (an extremely rapid release of gas and heat) or that, by chemical reaction within itself, is able to function in a similar manner even

if not designed to function by explosion, unless the substance or article is otherwise classed under the provisions in 49 CFR.

341.11 Class 1 Divisions

Explosives are categorized into six divisions:

a. **Division 1.1** consists of explosives that have a mass explosion hazard. Examples are black powder, nitroglycerine (desensitized), dynamite, most types of torpedoes, and mercury fulminate.

b. **Division 1.2** consists of explosives that have a projection hazard but not a mass explosion hazard. Examples are certain types of fireworks, some types of detonating fuses, and some types of ammunition.

c. **Division 1.3** consists of explosives that have a fire hazard and either a minor blast or minor projection hazard or both, but not a mass explosion hazard. Examples are sodium picramate, some liquid and solid propellants, and some rocket motors.

d. **Division 1.4** consists of explosives that present a minor blast hazard. Examples are common fireworks, toy caps, empty primed grenades, and some small arms ammunition.

e. **Division 1.5** consists of very insensitive explosives that have a mass explosion hazard. Examples are type E blasting agents, some type B blasting agents, and very insensitive explosive substances.

f. **Division 1.6** consists of extremely insensitive articles that do not have a mass explosion hazard.

341.12 Class 1 Compatibility Codes

Each division in Class 1 is further assigned a compatibility group code. The compatibility code consists of one letter (A-H, J-L, N, or S) that is positioned after the division number (e.g., 1.1A, 1.2C, 1.4S) and refers to the transportation and storage controls necessary to prevent potential hazards. Refer to 49 CFR § 173.52 for a more detailed description of the Class 1 compatibility codes.

341.2 Mailability, Packaging, and Marking

Explosives are generally prohibited from being mailed under 18 U.S.C. § 1716. The following conditions apply for mailing Hazard Class 1 items:

a. **International Mail:** All explosives are prohibited.

b. **Domestic Mail via Air Transportation:** All explosives are prohibited.

c. **Domestic Mail via Surface Transportation:** Generally, explosives are prohibited, with exceptions for Division 1.4S toy propellant devices and safety fuses that have been approved by the director, Product Classification before mailing (refer to 214 for contact information). A shipping paper is required.

341.21 Mailable Explosives

Certain explosives may be mailed under specific conditions. Full responsibility rests with the mailer to comply with Bureau of Alcohol, Tobacco, Firearms and Explosives (BATFE) regulations.

a. **Toy Propellant Devices** (e.g., model rocket motors or igniters) (UN0454 or NA0323): Classified as Division 1.4S, these devices may be mailed via surface transportation with prior written permission from the director, Product Classification (refer to 214 for contact information). Each device approved for mailing must meet strict requirements on size, design, and packaging:

(1) **Ignition and Propellant Requirements:**

(a) Ignitable by electrical means only.

(b) Contains no more than 30 g (1.07 oz) of propellant.

(c) Produces less than 80 newton-seconds of total impulse.

(d) Thrust duration not less than 0.050 seconds.

(2) **Construction Requirements:**

(a) All chemical ingredients must be preloaded into a cylindrical paper or similarly constructed nonmetallic tube.

(b) Tube must not fragment into sharp or hard pieces.

(c) Must be designed to avoid bursting under normal conditions of use.

(d) Capable of withstanding temperatures below 500° F without spontaneous ignition.

(e) Must not contain any explosive or pyrotechnic warhead, except for a small activation-charge for a parachute-recovery system.

(3) **Packaging and Shipping Requirements:**

(a) Mailpieces must be prepared following Packaging Instruction 1A in Appendix C.

(b) A shipping paper is required.

b. **Safety Fuses** (UN0105): Consists of a black powder core over-spun with yarns, waterproofing compounds, and/or tapes. Safety fuses identified as UN0105 and classified as Division 1.4S are mailable only when prior written approval has been granted by the director, Product Classification (refer to 214 for contact information). Mailable safety fuses are permitted in domestic surface transportation only and must be prepared according to Packaging Instruction 1B in Appendix C. A shipping paper is required.

Note: "Safety Fuses" should not be confused with "fusees." Fusees are rail and highway distress signals that are nonmailable Class 4 flammable solids.

c. **Shotgun Hulls, Empty Casings, Nonmetallic Shotgun Hulls, or Casings Without Primers:** These articles are not classified as explosives or hazardous materials under 49 CFR and, therefore, are mailable, subject to the applicable mailing rules (refer to 224).

341.22 Nonmailable Explosives

Nonmailable explosives found in the mailstream must be immediately reported in accordance with the *Postal Operations Manual* (POM) 139.117.

Nonmailable explosives include, but are not limited to:

a. **Common Fireworks:** Fireworks are classified as Division 1.1, 1.2, 1.3, or 1.4 explosives depending on the degree of hazard. Fireworks include roman candles, skyrockets, helicopter-type rockets, cylindrical and cone fountains, pyrotechnic wheels, illuminating torches, firecrackers, salutes, and combinations of items that are designed to produce any of the aforementioned types of effects. All types of fireworks are prohibited from mailing.

b. **Fuses:** Fuses are classified as Division 1.3 or 1.4 explosives depending on the degree of hazard. All types of fuses (except safety fuses as permitted under 341.22) are prohibited from mailing.

c. **Small Arms Ammunition:** Ammunition is classified as a Division 1.1, 1.2, 1.3, or 1.4 explosive, depending on the degree of hazard. Ammunition that is regulated as a Class 1 explosive and designed to be fired from a pistol, revolver, rifle, or shotgun, as well as associated primers and blank cartridges (including those designed for tools) and propellant powder for use in any firearm, is prohibited from mailing.

342 Gases (Hazard Class 2)

342.1 Definition

Hazardous gases, classified under Hazard Class 2, include flammable, nonflammable, and toxic gases. These materials are gases at standard temperature and pressure, and their classification depends on their flammability, toxicity, or ability to exert pressure. Specific regulations govern their mailability based on their division and mode of transportation.

342.11 Class 2 Divisions

Gases are categorized into three divisions:

a. **Division 2.1 - Flammable Gases**

(1) A material that is a gas at 68° F (20° C) or less and 14.7 psi (101.3 kPa) of pressure.

(2) Includes materials with a boiling point of 68° F (20° C) or less at 14.7 psi (101.3 kPa) and either:

(a) Are ignitable at 14.7 psi (101.3 kPa) when in a mixture of 13 percent or less by volume with air; or

(b) Have a flammable range at 14.7 psi (101.3 kPa) with air of at least 12 percent regardless of the lower limit.

Note: These conditions must be established in accordance with the American Society for Testing and Materials (ASTM) E681-85, *Standard Test Method for Concentration Limits of Flammability of Chemicals*, or other approved equivalent method. The flammability of

aerosols must be determined using the tests specified in 49 CFR § 173.306(a)(3)(v).

b. **Division 2.2 - Nonflammable, Nontoxic Gases**

(1) Materials that do not meet the definitions for Division 2.1 or 2.3; and

(2) Exert in its packaging an absolute pressure of 40.6 psia (280 kPa) or greater at 68° F (20° C).

c. **Division 2.3 - Toxic Gases**

(1) Poisonous by inhalation and is a gas at 68° F (20° C) or less and a pressure of 14.7 psi (101.3 kPa); or

(2) A boiling point of 68° F (20° C) or less at 14.7 psi (101.3 kPa).

342.2 Mailability

342.21 General

The following conditions apply for mailing Hazard Class 2 items:

a. **International Mail:** All gases are prohibited.

b. Domestic Mail via Air Transportation:

(1) Division 2.1 (flammable gases) and Division 2.3 (toxic gases) are prohibited.

(2) Division 2.2 (nonflammable gases) are generally permitted if the material can qualify as an ID8000 material (refer to 335) and meet quantity limits and packaging requirements (refer to 342.3 and 342.4).

c. Domestic Mail via Surface Transportation:

(1) Division 2.3 (toxic gases) are prohibited.

(2) Division 2.1 (flammable gases) and Division 2.2 (nonflammable gases) are generally permitted if the material can qualify as a Limited Quantity surface material and meet the quantity limits and packaging requirements (refer to 342.3 and 342.4).

342.22 Mailable Gases

Mailable gases may be sent via domestic mail under specific conditions, such as compliance with quantity limitations, packaging requirements, and applicable transportation methods (air or surface). Some examples of mailable gases include:

a. **Butane (UN1011):** Division 2.1 flammable gases. Butane or butane mixtures are mailable via surface transportation as Limited Quantity materials, provided they comply with 342.3 and *Packaging Instruction 2A* in Appendix C.

b. **Oxygen, Compressed (UN1072):** Division 2.2 nonflammable gas. Compressed oxygen is mailable if it qualifies as a Limited Quantity material, following 342.3 and Packaging Instruction 2B in Appendix C.

c. **Propane:** Division 2.1 flammable gas. Propane is mailable via surface transportation as a Limited Quantity material only. Air transportation is prohibited. The requirements in 342.3 and *Packaging Instruction 2A* in Appendix C must be followed.

d. **Fire Extinguishers (UN1044):** Division 2.2 nonflammable compressed gas. Fire extinguishers that contain nonflammable compressed gas are mailable if they do not contain methyl bromide gas mixtures, meet DOT container specifications, hold nonflammable, nonpoisonous, or noncorrosive gas, and comply with 49 CFR § 173.309(a) and the requirements in *Packaging Instruction 2B* in Appendix C. Only one extinguisher per mailpiece is permitted.

Note: Fire extinguishers assigned UN1774 are mailable as Class 8 corrosives subject to the limitations for corrosives in 348.

e. **Empty Compressed Gas Containers:** Empty, used containers are mailable under the same restrictions as when filled (because residual amounts of the hazardous material might remain present). Empty, unused (i.e., new) containers are mailable without restriction.

f. **Aerosol Paint Products:** Aerosol paint products that are defined as flammable compressed gases are acceptable in the domestic mail via surface transportation only if they can qualify as a Limited Quantity ground material and meet the quantity limitations and applicable packaging requirements in 342.3 and 342.4.

g. **Other Mailable Gases:** Materials with pressurized contents (except for any that may contain poisonous gases or others that may be specifically excluded by 49 CFR § 173.306) are mailable domestically as follows:

(1) **Carbonated Beverages:** These items are not regulated as hazardous materials and are mailable without restriction but must be properly packaged in accordance with DMM 601.

(2) **Biological Products or Medical Preparations:** Nonflammable solutions containing biological or medical products in nonrefillable metal containers preparation that heat could deteriorate may be accepted for domestic surface mail only, provided they comply with *Packaging Instruction 2F* in Appendix C.

(3) **Foodstuffs and Soaps:** These items are mailable if packaged in accordance with Packaging Instruction 2D in Appendix C.

(4) **Electronic Tubes:** These items are mailable without restriction if the volume does not exceed 30 cubic inches and the tube is charged with gas at 35 psig or less. Such tubes must be packed in strong outer containers and meet general packaging standards per DMM 601.

(5) **Audible Fire Alarm Systems:** These systems, if powered by compressed gas, are acceptable in domestic mail via surface transportation if they comply with conditions in Packaging Instruction 2E in Appendix C.

342.3 Packaging

Mailable compressed gases must be packaged to protect valves and fittings to ensure the primary receptacle's integrity during transport. Containers must use recessed valves, screw thread caps, tap closures, or other mechanisms to prevent accidental discharge.

The following conditions apply:

a. **Nonmetal Containers:** Mailable gases in nonmetal primary receptacles are acceptable if the water capacity does not exceed 4 fluid ounces (7.22 cubic inches). *Packaging Instruction 2A* or *2B*, as applicable, must be followed.

b. **Metal Containers:** Mailable nonflammable and flammable compressed gases are acceptable in metal primary receptacles with a water capacity up to 33.8 fluid ounces (1 liter or 61.0 cubic inches). The contents must not completely fill the receptacle at 130° F (55° C). Additional requirements include:

(1) A DOT 2P container must be used for internal pressures between 140 psig and 160 psig at 130° F (55° C).

(2) A DOT 2Q container must be used for pressures between 161 psig and 180 psig at 130° F (55° C).

(3) *Packaging Instruction 2A* or *2B*, as applicable, must be followed.

c. **Flammable Gases:** Mailable flammable compressed gases are limited to 4 fluid ounces in a nonmetal primary receptacle or 33.8 fluid ounces (1 liter) in a metal primary receptacle per mailpiece. *Packaging Instruction 2A* must be followed.

d. **Nonflammable Gases:** Mailable nonflammable gases are permitted in individual nonmetal primary receptacles of 4 fluid ounces or metal primary receptacles of 33.8 fluid ounces (1 liter). Multiple primary receptacles are permitted as long as they are securely packed within a strong outer packaging, that does not exceed a total weight of 25 pounds. *Packaging Instruction 2B* must be followed.

e. **Prohibited Containers:** Containers with internal pressures exceeding 180 psig at 130° F (55° C) are prohibited from mailing.

342.4 Marking and Documentation

Labels and text markings must appear on the address side of the mailpiece unless otherwise specified in 221.1 and 325.1. Packages containing mailable gases must be marked as follows:

a. **Air Transportation:** Packages containing Class 2 materials must display the DOT diamond-shape marking, with a black top and bottom, a black border, and a white or contrasting background. A black symbol "Y" must be clearly visible at the center of the diamond-shape. Each mailpiece must also be marked with the proper shipping name ("Consumer Commodity") and identification number ("ID8000"), with an approved DOT Class 9 hazardous material warning label (refer to Exhibit 325.4(b)). A completed Shipper's Declaration for Dangerous Goods, prepared in triplicate, must be affixed to the outside of the mailpiece.

b. **Surface Transportation:** Packages containing Class 2 materials must be plainly and durably marked on the address side with an approved DOT Limited Quantity surface marking (refer to 325.5). The Limited Quantity surface marking is sufficient for surface shipments; neither the proper shipping name nor the identification number is required. A

shipping paper is also not required for surface shipments of mailable Class 2 materials.

c. **Marking Specifications:** The diamond-shaped border must be at least 2 mm in width, with a minimum side dimension of 100 mm, unless the package size necessitates a reduced marking of no less than 50 mm on each side.

342.5 Mailability Rulings

In addition to the information required in 215.2 and 324, requests for mailability rulings on gases and products containing compressed gases must include the following information:

a. Documentation indicating whether the contents are a flammable mixture when dispersed.

b. The internal pressure within the primary receptacle at 70° F (21° C) and 130° F (55° C).

c. Documentation verifying whether the liquid contents completely fill the container at 70° F (21° C) and 130° F (55° C).

d. The bursting strength of the primary receptacle.

e. The capacity of the primary receptacle and the number of primary receptacles proposed per mailpiece.

f. The design methods intended to prevent accidental discharge of the contents.

342.51 Nonmailable Gases

If a nonmailable gas is found in the mailstream, appropriate procedures must be followed based on the nature of the threat posed (refer to POM 139.117 or 139.118).

The following are examples of nonmailable gases:

a. **Cigarette Lighters** (NA1057): Generally classified as Class 3 flammable liquid, lighters charged with fuel and having an ignition system (or similar heating, lighting, or ignition device) are nonmailable. However, if an approval number is obtained from DOT, consideration for mailing may be requested from the director, PCSC, under the provisions in 343.25.

b. **Oxygen, Refrigerated Liquid** (UN1073): (Also known as liquid oxygen) is prohibited from mailing under any circumstances.

c. **Fire Extinguishers** (UN0275, UN0276, UN0323, or UN0381): Fire extinguishers that contain propellant explosives are prohibited from mailing. Refer to 342.22 for mailable types of fire extinguishers.

d. **Toxic Gases:** All Division 2.3 toxic gases are prohibited from mailing.

343 Flammable and Combustible Liquids (Hazard Class 3)

343.1 Definition

The terms used in the standards that apply to Hazard Class 3 are defined as follows:

a. **Flammable Liquid:** A liquid that has a flashpoint of not more than 140° F (60° C), or any material in a liquid phase that has a flashpoint at or above 100° F (38° C).

b. **Combustible Liquid:** Any liquid that does not meet the definition of any other hazard class and has a flashpoint above 140° F (60° C) and below 200° F (93° C). A flammable liquid with a flashpoint at or above 100° F (38° C) that does not meet the definition of any other hazard class may be reclassified as a combustible liquid per 49 CFR § 173.120(b).

Note: A liquid with a flashpoint above 200° F (93° C) is not regulated as a hazardous material and may be mailed subject to the general packaging requirements in DMM 601, provided it possesses no characteristics of another hazard class.

343.2 Mailability and Packaging

343.21 Requirements for Flammable Liquids

The following conditions apply for mailing flammable liquids:

a. **International Mail:** Flammable liquids are prohibited.

b. **Domestic Mail via Air Transportation:** Flammable liquids are prohibited.

c. **Domestic Mail via Surface Transportation:** Flammable liquids with a flashpoint at or below 20° F (-7° C) are prohibited. Other flammable liquids may be mailed if they qualify as a Limited Quantity surface material and meet the criteria in Exhibit 343.21. Mailable flammable liquids must be prepared according to *Packaging Instruction 3A* in Appendix C.

Exhibit 343.21
Flammable Liquids

Flashpoint	Mailability
20° F (-7° C) or below	Not acceptable for mailing.
Above 20° F (-7° C) but not more than 73° F (23° C)	Acceptable (with restrictions) for domestic mail via surface transportation only. Follow requirements for *Packaging Instruction 3A* in Appendix C, as applicable.
Above 73° F (23° C) but less than 100° F (38° C)	Acceptable (with restrictions) for domestic mail via surface transportation only. Follow requirements for *Packaging Instruction 3A* in Appendix C, as applicable.
100° F (38° C) and up to 140° F (60° C)	Acceptable (with restrictions) for domestic mail via surface transportation only. Follow requirements for *Packaging Instruction 3A* or *3B* in Appendix C, as applicable. ***Note:*** If the flashpoint is between 100° F (38° C) and 140° F (60° C), the liquid may be eligible to be reclassed as a combustible liquid.
Over 140° F (60° C)	Refer to combustible liquids in 343.22. Follow requirements for *Packaging Instruction 3B* in Appendix C.

343.22 Requirements for Combustible Liquids

The following conditions apply for mailing combustible liquids:

a. **International Mail:** Combustible liquids are prohibited.

b. **Domestic Mail via Air Transportation:** Combustible liquids are mailable if they qualify as ID8000 materials (refer to 335) and meet the criteria in Exhibit 343.22. *Packaging Instruction 3B* in Appendix C must be followed.

c. **Domestic Mail via Surface Transportation:** Combustible liquids are mailable if they qualify as Limited Quantity and consumer commodity materials and meet the criteria in Exhibit 343.22. *Packaging Instruction 3B* in Appendix C must be followed.

Exhibit 343.22
Combustible Liquids

Flashpoint	Mailability
Below 100° F (38° C)	Not a combustible liquid. Refer to flammable liquids in 343.21.
100° F (38° C) but not more than 140° F (60° C)	A flammable liquid that may be eligible to be reclassified as a combustible liquid under 49 CFR § 173.120(b). Refer to 343.1. Acceptable (with restrictions) in domestic mail via surface transportation only. Follow requirements for *Packaging Instruction 3B* in Appendix C as applicable.
Above 140° F (60° C) but not more than 200° F (93° C)	Acceptable (with restrictions) for domestic mail via air transportation or surface transportation. Follow requirements for *Packaging Instruction 3B* in Appendix C, as applicable.
Above 200° F (93° C)	The material is not regulated as a hazardous material. Such nonregulated materials must be properly and securely packaged to prevent leakage under the general packaging requirements in DMM 601.3.4.

343.23 Mailable Flammable and Combustible Liquids

The following flammable and combustible liquids are permitted for mailing under specified conditions:

a. **Paint and Related Items (UN1263):** A flammable or combustible liquid, which includes items such as lacquer, paint-thinning or paint-drying compounds, shellac, varnish, liquid aluminum, liquid bronze, liquid gold, liquid wood filler, and liquid lacquer base. They are mailable if they qualify as Limited Quantity surface material and meet the quantity limitations and packaging requirements stated in 343.21 or 343.22. *Packaging Instruction 3A* or *3B* in Appendix C, as applicable, must be followed.

Note: Latex paint and water-based paint that are non-flammable and non-combustible are unrestricted and not regulated as a hazardous material. Package these mailpieces in accordance with DMM 601.

b. **Canned Heat (Sterno):** Considered a flammable liquid and typically has a flashpoint between 40° F (4° C) and 80° F (27° C). It is mailable if it qualifies as a Limited Quantity surface material and meets quantity limitations and packaging requirements stated in 343.21. *Packaging Instruction 3A* in Appendix C must be followed.

c. **Lighter Fluid:** Considered a flammable liquid and typically has a flashpoint between 20° F (-7° C) and 55° F (13° C). It is permitted only in domestic mail via surface transportation provided the fluid can qualify as a Limited Quantity surface material and is sent within the quantity limitations and packaging requirements stated in 343.21. *Packaging Instruction 3A* in Appendix C must be followed.

d. **Diesel Fuel (NA1993):** A combustible liquid with a typical flashpoint between 110° F (43° C) and 190° F (88° C) and is mailable if it qualifies as a Limited Quantity surface material and meets the conditions stated in 343.22. *Packaging Instruction 3B* in Appendix C must be followed.

e. **Fuel Oil (NA1993):** A flammable liquid with a typical flashpoint below 100° F (38° C) is mailable if it qualifies as a Limited Quantity surface material and meets the quantity limitations and packaging requirements stated in 343.21 "or" 343.22, as applicable. *Packaging Instruction 3A* or *3B* in Appendix C must be followed.

f. **Adhesives and Cements (UN1133):** A flammable liquid with an approximate flashpoint of 73° F (23° C) is mailable only if it qualifies as a Limited Quantity surface material and meets the conditions in 343.21 or 343.22 as applicable. *Packaging Instruction 3A* or *3B* in Appendix C, as applicable, must be followed.

Note: Adhesives and cements may be extremely toxic (Division 6.1). Division 6.1 materials are mailable only as permitted in 346.21.

g. **Cleaning Agents and Solvents:** A flammable liquid. It is mailable if it qualifies as Limited Quantity surface materials and meet the conditions in 343.21 as applicable. *Packaging Instruction 3A* in Appendix C must be followed.

Note: Certain cleaning agents and solvents may be extremely toxic (Division 6.1) or corrosive (Class 8). Division 6.1 toxic materials and Class 8 corrosives are mailable only within the conditions of 343.21 and 348.2, respectively.

h. **Model Fuel (for Glow-Plug Engines):** A flammable liquid with a flashpoint ranging from 65° F to 75° F. It is mailable only if it qualifies as a Limited Quantity surface material and meets the quantity limitations and packaging requirements stated in 343.21. *Packaging Instruction 3A* in Appendix C must be followed.

i. **Waxes and Polishes:** Considered flammable or combustible liquids with varying flashpoints. It is mailable if they qualify as Limited Quantity surface materials and meet the conditions stated in 343.21 and 343.22, as applicable. *Packaging Instruction 3A* or *3B* in Appendix C, as applicable, must be followed.

j. **Inks:** Classified as flammable or combustible liquids. Defined as colored liquids used for writing, drawing, and printing, and often

composed of pigments such as carbon black suspended in a drying oil. They are mailable if they qualify as Limited Quantity surface material and meet requirements stated in 343.21 or 343.22, as applicable. Follow *Packaging Instruction 3A* or *3B* in Appendix C, as applicable. Additional conditions include:

(1) Primary receptacles containing inks must be cushioned with absorbent material sufficient to contain any leakage.

(2) The primary receptacle(s) and the absorbent cushioning must be enclosed in a sealed, leakproof outer packaging.

(3) Flammable or combustible inks must adhere to the quantity restrictions, packaging requirements, and transport conditions outlined in 343.2.

Note: Inks with no hazardous characteristics are not regulated as hazardous materials and are mailable if packaged in accordance with the standards in 451.3 and DMM 601.3.4.

343.24 Lighters

Lighters with ignition elements and containing liquid fuel are classified as a Class 3 flammable liquid; those containing flammable gas are Division 2.1. Mailing is permitted only for domestic surface transportation only under the following conditions:

a. **Certification:** Lighter design must be certified by a DOT-approved lighter testing agency per 49 CFR § 173.21(i) and 173.308, with an issued Approval Number (LAA****).

b. **Authorization:** Mailers must submit a written request to mail lighters, to the PCSC director, accompanied by a legible copy of the official DOT approval notice described in 343.24a, along with a sample lighter within the proposed packaging. The request must also include the quantity of lighters being mailed and the post office location where the mailings will be entered. An approval letter must be obtained from the PCSC director prior to mailing.

c. **Packaging:** Packaging must secure the lighter's sparking mechanism against accidental ignition, and all preparation and packaging requirements in the PCSC director's approval letter must be met. *Packaging Instruction 3C* in Appendix C must be followed.

d. **Labeling:** The address side of the mailpiece must display the following:

(1) Proper Shipping Name (Lighter(s) or Lighter Refill(s))

(2) Approval Number (LAA*****)

(3) Surface Only or Surface Mail Only

e. **Documentation:** A legible copy of the PCSC director's approval letter must be presented at the time of the first mailing at each Postal Service facility. A shipping paper is not required.

343.25 Authorization to Mail Ethanol-Based Flammable Liquids or Solids

Flammable liquids or solids containing ethanol (ethyl alcohol) are mailable by domestic air only with prior written authorization.

Mailers must submit a request to the director, Product Classification (refer to 214 for contact information). The request must include product specifics (e.g., brand, container size and type), an SDS for each product, the post office of mailing, and expected frequency and quantity of mailings (e.g., four 6-ounce bottles per package). Initial approval is for 1 year, extendable (in 1- to 3-year increments) based on performance.

Conditions for approved mailings include:

a. **Authorization:** A copy of the authorization letter from the director, Product Classification, is required. Mailings not supported by an authorization letter will be refused.

b. **Package Limits:**

(1) Packages containing ethanol-based products with no more than 70% ethanol by volume must not exceed 25 pounds. Primary receptacles must not exceed the following:

(a) Non-glass: 16 ounces (liquid) or 1 pound (solid).

(b) Glass: 8 ounces (liquid) or 1/2 pound (solid).

Note: Total volume per mailpiece must not exceed 96 ounces (liquid) or 16 pounds (solid).

(2) For packages containing ethanol-based products exceeding 70% ethanol by volume must not exceed 16 pounds. Primary receptacles must not exceed the following 8 ounces (liquid) or ½ pound (solid).

Note: Total volume per mailpiece must not exceed 48 ounces (liquid) or 8 pounds (solid).

c. **Entry and Labeling:** Packages must be entered using either *Priority Mail Express* or *Priority Mail* and include the following information:

(1) Sender name and return address.

(2) "Contains Air-Eligible Ethyl Alcohol - Authorization Number XXXXX (number issued by the Postal Service at time of approval)" text in at least 14-point type.

d. **Notice to Addressee:** A written notice to the addressee must be included, advising against re-mailing the contents by air. The notice must be as follows:

"Flammable liquids or solids contained in these packages may be mailed only by consumers (the addressee) via surface transportation in accordance with Publication 52, 343. Full responsibility rests with the mailer to comply with all Postal Service and other statutes and regulations regarding mail. Information regarding postal statutes, regulations, and mailing requirements is available from your local postmaster or district manager, Business Mail Entry, and at the Postal Service's mailing standards website, Postal Explorer, at *pe.usps.com*."

e. **Compliance:** Warning and labeling requirements set forth in 21 CFR § 700, 701.3, and 740.1 must be met and quantity, packaging, and marking requirements in *Packaging Instruction 3D* in Appendix C must be followed.

343.3 Marking and Documentation

Labels and text markings must appear on the address side of the mailpiece unless otherwise specified in 221.1 and 325.1. Packages containing mailable flammable or combustible liquids must be marked as follows:

a. **Air Transportation:** Packages containing mailable Class 3 materials must display the DOT diamond-shaped marking, with a black top and bottom, a black border, and a white or contrasting background. A black symbol "Y" must be clearly visible at the center of the diamond-shape. Each mailpiece must also be marked with the proper shipping name ("Consumer Commodity") and identification number ("ID8000"), with an approved DOT Class 9 hazardous material warning label (refer to Exhibit 325.4b). A completed Shipper's Declaration for Dangerous Goods, prepared in triplicate, must be affixed to the outside of the mailpiece.

b. **Surface Transportation:** Packages containing mailable Class 3 materials must be plainly and durably marked on the address side with an approved DOT Limited Quantity surface marking (refer to Exhibit 325.5). The Limited Quantity ground marking is sufficient for surface shipments; neither the proper shipping name nor the identification number is required. A shipping paper is also not required for surface shipments of mailable Class 3 materials.

c. **Marking Specifications:** Markings must be durable, legible, and readily visible, applied to at least one side or end of the outer packaging. The diamond-shaped border must be at least 2 mm in width, with a minimum side dimension of 100 mm, unless the package size necessitates a reduced marking of no less than 50 mm on each side.

d. **Lighters:** Lighters containing flammable liquids or gases must be marked as specified in 343.24.

e. **Ethanol-based Flammables:** Ethanol-based flammable liquids or solids must be marked as specified in 343.25 and, *Packing Instruction 3D* in Appendix C.

343.31 Nonmailable Flammable and Combustible Liquids

When flammable liquids and combustible liquids that are nonmailable under 343.21 or 343.22 are found in the mailstream, the procedures in POM 139.117 must be followed if the materials present an immediate threat to persons or property.

The following materials are nonmailable:

a. **All flammable liquids** having a flashpoint of 20° F (-7° C) or below are prohibited from mailing.

b. **Gasoline (UN1203)** is a flammable liquid that normally has a flashpoint of -50° F. Gasoline is nonmailable under any circumstances.

c. **Acetone (UN1090)** normally has a flashpoint of 0° F, **Benzene (UN1114)** normally has a flashpoint of 12° F, and **Hexane(s) (UN1208)** normally have flashpoints in the vicinity of -15° F. All are nonmailable unless diluted with less flammable or nonflammable materials sufficient to raise the flashpoint to 20° F or higher.

344 Flammable Solids (Hazard Class 4)

344.1 Definition

Hazard Class 4 consists of three divisions:

a. **Division 4.1, Flammable Solids:** Solid materials (other than explosives) that, under typical transport conditions, may ignite through friction or retained heat from manufacturing or processing, or that ignite easily and burn vigorously enough to pose a significant transportation hazard.

b. **Division 4.2, Spontaneously Combustible:** Liquid or solid pyrophoric materials that can ignite within 5 minutes air exposure without an external ignition source, or self-heating materials that may begin to heat spontaneously when in contact with air, even without an energy supply.

c. **Division 4.3, Dangerous When Wet:** Materials that, upon contact with water, may become spontaneously flammable or emit flammable or toxic gas at a rate greater than 1 liter per kilogram of the material per hour.

Examples of flammable solids include certain metallic hydrides, metallic sodium and potassium, oily fabrics, processed metals, matches, and nitrocellulose products.

344.2 Mailability

The following conditions apply for mailing Hazard Class 4 items:

a. **International Mail:** All flammable solids are prohibited.

b. **Domestic Mail via Air Transportation:** All flammable solids are prohibited.

c. **Domestic Mail via Surface Transportation:** Flammable solids that qualify as Limited Quantity surface materials are permitted.

344.21 Mailable Flammable Solids

The following flammable solids are permitted for mailing under specified conditions:

a. **Limited Quantity Surface Materials:** Flammable solids that qualify as Limited Quantity surface materials are permitted in the domestic mail via surface transportation.

b. **Safety matches:** Book, card, or strike-on-box safety matches are permitted only in domestic mail via surface transportation.

344.3 Packaging, Marking, and Documentation

Labels and text markings must appear on the address side of the mailpiece unless otherwise specified in 221.1 and 325.1. The following conditions apply:

a. **Mailable Flammable Solids:** Packaging must follow the conditions in *Packaging Instruction 4A* in Appendix C. Mailpieces containing mailable Class 4 materials must be plainly and durably marked on the address side with an approved DOT Limited Quantity ground marking

(refer to 325.4). Shipments bearing the Limited Quantity surface marking do not require the proper shipping name and identification number. A shipping paper is not required for mailable Class 4 materials sent via surface transportation.

b. **Safety Matches:** Packaging must follow conditions in *Packaging Instruction 4B* in Appendix C Mailpieces must be plainly and durably marked on the address side with "Surface Only" or "Surface Mail Only" and, as applicable, "Book Matches," "Strike-on-Card Matches," or "Card Matches." A shipping paper is not required.

344.4 Nonmailable Flammable Solids

Nonmailable flammable solids that are found in the mailstream and pose an immediate threat to persons or property must be handled in accordance with the procedures in POM 139.117.

Strike-anywhere matches and safety matches are examples of flammable solids. All flammable solids are prohibited in domestic air transportation and in international mail. Safety matches (book, card, or strike-on-box) are mailable only domestic surface transportation.

345 Oxidizing Substances, Organic Peroxides (Hazard Class 5)

345.1 Definition

Hazard Class 5 consists of two divisions:

a. **Division 5.1, Oxidizing Substances:** Materials that may cause or enhance the combustion of other materials, generally by releasing oxygen.

b. **Division 5.2, Organic Peroxides:** Any organic compound that contains oxygen in the bivalent structure and that may be considered a derivative of hydrogen peroxide, where one or more of the hydrogen atoms have been replaced by organic radicals.

Examples of Class 5 materials (not all of which are mailable) include ferric nitrate, hydrogen peroxide, lead perchlorate, lithium nitrate, organic peroxide solids or liquids, and some swimming-pool chemicals.

345.2 Mailability

The following conditions apply for mailing Hazard Class 5 items:

a. **International Mail:** All oxidizing substances and organic peroxides are prohibited.

b. **Domestic Mail via Air or Surface Transportation:** Oxidizing substances or organic peroxides that qualify as Limited Quantity air or Limited Quantity surface are permitted.

345.21 Mailable Class 5 Materials

Class 5 materials are permitted for mailing as follows:

a. **A division 5.1 or 5.2 material** that can be reclassified as a Limited Quantity air or Limited Quantity surface are mailable within the requirements in 345.2(b).

b. **Hydrogen Peroxide.** Division 5.1 hydrogen peroxide solutions with an 8 percent or less hydrogen peroxide content is regulated as hazardous material but must be prepared according to DMM 601.3.4. Solutions of hydrogen peroxide more than 8 percent but no more than 20 percent are permitted if they can qualify as Limited Quantity air or Limited Quantity surface.

345.3 Packaging, Marking, and Documentation

Labels and text markings must appear on the address side of the mailpiece unless otherwise specified in 221.1 and 325.1. Packages containing mailable Division 5.1 and 5.2 materials must be prepared according to Packaging Instructions 5A in Appendix C and marking as follows:

c. **Air Transportation:** Packages must be marked with a DOT diamond-shaped limited quantity mark with the symbol "Y" in the center. Refer to Exhibit 325.4b). Each package must also be marked with the proper shipping name, identification number, and an approved DOT Class 5.1 or 5.2 hazardous material warning label. A properly completed Shipper's Declaration for Dangerous Goods, prepared in triplicate, must be affixed to the outside of the package.

d. **Surface Transportation:** Packages must be marked on the address side with an approved DOT Limited Quantity surface marking (refer to 325.4). The Limited Quantity ground marking is sufficient for surface shipments; neither the proper shipping name nor the identification number is required. A shipping paper is also not required for surface shipments of mailable Division 5.1 or 5.2 materials.

Markings must be durable, legible, and readily visible, applied to at least one side or end of the outer packaging. The diamond-shaped border must be at least 2 mm in width, with a minimum side dimension of 100 mm, unless the package size necessitates a reduced marking of no less than 50 mm on each side.

345.4 Nonmailable Class 5 Materials

Nonmailable Class 5 materials that are found in the mailstream and pose an immediate threat to persons or property must be handled in accordance with the procedures in POM 139.117. If no immediate threat is present, refer to POM 139.118.

The following Class 5 materials are nonmailable:

a. Division 5.1, Oxidizing Substances.

(1) Chlorine dioxide hydrate, frozen.

(2) Hydrogen peroxide solution (more than 20 percent).

(3) Perchloric acid.

(4) Potassium peroxide.

(5) Sodium chlorite.

(6) Tetranitromethane.

(7) Zinc ammonium nitrate.

b. **Division 5.2, Organic Peroxides:** Organic peroxides are nonmailable unless they qualify as Limited Quantity air or Limited Quantity surface.

346 Toxic Substances and Infectious Substances (Hazard Class 6)

346.1 Definitions

Hazard Class 6 consists of two divisions:

a. **Division 6.1, Toxic Substances:** This division includes toxic substances, poisons, and material with properties that cause extreme irritation, especially in confined spaces. Examples include bromobenzyl cyanide, methyl bromide, motor fuel anti-knock mixtures, tear gas, and some insecticides and pesticides (not all examples are mailable).

b. **Division 6.2, Infectious Substances:** This division includes infectious substances. Examples include biological products, regulated medical waste, sharps medical waste, used health care products, and forensic materials.

346.11 Division 6.1, Toxic Substances Terms

The following terms are used in the standards for Division 6.1 materials:

a. **Toxic Substance:** A poisonous material, other than a gas, known to be toxic enough to cause death, injury, or harm to humans if swallowed, inhaled, or brought into contact with skin. These substances are presumed to be toxic to humans because they fall within any one of the following categories when tested on laboratory animals (whenever possible, animal test data that has been reported in the chemical literature should be used to determine toxicity):

(1) **Oral Toxicity:** A liquid or solid with an LD50 (lethal dose) for acute oral toxicity of 300 mg/kg or less that is likely to cause death within 14 calendar days in half of the test animals when ingested.

(2) **Dermal Toxicity:** A material with an LD50 for acute dermal toxicity of 1,000 mg/kg or less that is likely to cause death within 14 calendar days in half of the test animals when administered by continuous contact with bare skin.

(3) **Inhalation Toxicity:** A dust or mist with a lethal concentration (LC50) for acute inhalation toxicity of not more than 4 mg/L, or a saturated vapor concentration in air at 68° F (20° C) greater than or equal to more than one-fifth of the LC50 for acute toxicity on inhalation of vapors and with an LC50 for acute inhalation toxicity of vapors of not more than 5,000 ml/m3 that, when administered by continuous inhalation for 1 hour, is likely to cause death within 14 days in half of the test animals.

b. **Irritating Material:** Any liquid or solid (e.g., tear gas) that emits intense fumes causing severe but reversible localized irritation to the eyes, nose, and throat, temporarily impairing a person's ability to function.

346.12 Division 6.2, Infectious Substances Terms

Division 6.2 materials include infectious substances, biological products, regulated medical waste, sharps medical waste, used health care products, and forensic materials. Division 6.2 materials are not permitted in

international mail or domestic mail, except when they are intended for medical or veterinary use, research, or laboratory certification related to the public health; and only when such materials are properly prepared for mailing to withstand shocks, pressure changes, and other conditions related to ordinary handling in transit. Unless otherwise noted, all mailable Division 6.2 materials must meet the mail preparation requirements for air transportation.

The following terms are used in the standards for Division 6.2 materials:

a. **Infectious Substance:** A material known or reasonably expected to contain a pathogen. A pathogen is a microorganism that can cause disease in humans or animals. Examples of pathogens include bacteria, viruses, fungi, and other infectious agents. An infectious substance must be assigned to one of the following two packaging categories:

(1) **Category A:** An infectious substance transported in a form capable of causing permanent disability or life-threatening or fatal disease in otherwise healthy humans or animals when exposure occurs. Category A infectious substances are nonmailable. A Category A infectious substance is assigned the identification number UN2814 or UN2900, based on the known medical history or symptoms of the source patient or animal, endemic local conditions, or professional judgment concerning the individual circumstances of the source human or animal.

(2) **Category B:** An infectious substance that does not meet the criteria for inclusion in Category A. A mailpiece known or suspected to contain a Category B infectious substance must bear the proper shipping name "Biological Substance, Category B" and must be assigned to and marked with identification number UN3373 (as shown in Exhibit 346.12). Regulated medical waste and sharps medical waste must be assigned to and marked with identification number UN3291. The proper shipping name, identification number, and warning label, when applicable, must be marked on the address side of the package unless specified in 221.1 and 325.1. A sack or tub containing Category B infectious substances must have attached PS Tag 44, *Sack Contents Warning*. The tag must be removed when the Category B infectious substances are no longer in the sack or tub.

Exhibit 346.12
Mailpiece Symbol and Marking for Mailpieces Containing Biological Substance, Category B Substances

b. **Biological Product:** A biological product includes virus, therapeutic serum, toxin, antitoxin, vaccine, blood, blood component or derivative, allergenic product, or similar product, or arsphenamine or any derivative of arsphenamine (or any other trivalent arsenic compounds) intended to prevent, treat, or cure a disease or condition in humans or animals. Biological products also encompass materials regulated under 42 U.S.C. § 262 or 21 U.S.C. § 151-159. Unless otherwise excepted, mailpieces containing biological products known or likely to contain pathogens that meet the definition of a Category B infection substance must be marked with identification number UN3373 (as shown in Exhibit 346.12).

c. **Cultures:** Infectious substances that result from a process by which pathogens are intentionally reproduced, excluding human or animal patient specimens as defined in item e below.

d. **Exempt Human or Animal Specimen:** A human or animal sample (including, but not limited to, secreta, excreta, blood and its components, tissue and tissue fluids, and body parts) transported for routine testing not related to the diagnosis of an infectious disease. Typically, exempt human specimens are specimens for which there is a low probability that the sample is infectious, such as specimens for drug or alcohol testing; cholesterol testing; blood glucose level testing; prostate-specific antigens (PSA) testing; testing to monitor heart, kidney, or liver function; pregnancy testing; and testing for diagnosis of noninfectious diseases such as cancer biopsies. Exempt human or animal specimens are not subject to regulation as hazardous materials but must be packaged according to 346.327.

e. **Patient Specimen:** Material that is collected directly from humans or animals and transported for purposes such as diagnosis and research. Patient specimens include excreta, secreta, blood and its components, tissue and tissue swabs, body parts, and specimens in transport media (such as transwabs, culture media, and blood culture bottles).

f. **Regulated Medical Waste:** Soft medical waste (other than a sharp) derived from the medical treatment, diagnosis, immunization, or biomedical research of a human or animal. Soft medical waste includes items such as used rubber gloves, swabs, gauze, tongue depressors,

and other similar material. Mailpieces containing regulated medical waste must be marked with identification number UN3291.

g. **Sharps Medical Waste:** Medical waste objects capable of cutting or penetrating skin or packaging material and that is contaminated with a pathogen or may become contaminated with a pathogen derived from the medical treatment, diagnosis, immunization, or biomedical research of a human or animal. Sharps include used medical waste such as needles, syringes, scalpels, broken glass, culture slides, culture dishes, broken capillary tubes, broken rigid plastic, and exposed ends of dental wires. Mailpieces containing sharps medical waste must be marked with identification number UN3291.

h. **Toxin:** Division 6.1 materials from plant, animal, or bacterial sources. Toxins containing infectious substances (or contained in an infectious substance) are classed under Division 6.2 (described as an infectious substance), and assigned to UN2814, UN2900, or UN3373, as appropriate. Toxins known or suspected to contain a Category A infectious substance is nonmailable. A toxin known or suspected to contain a Category B infectious substance must be marked with identification number UN3373 and packaged according to 346.321. Toxins from plant, animal, or bacterial sources that do not contain an infectious substance and are not contained in an infectious substance may be considered for classification as Division 6.1 toxic substances under 346.

i. **Used Health Care Product:** Medical diagnostic, or research device or piece of equipment, or a personal care product used by consumers, medical professionals, or pharmaceutical providers, that does not meet the definition of a diagnostic specimen, biological product, regulated medical waste, or sharps waste, is contaminated with potentially infectious body fluids or materials, and is not decontaminated or disinfected to remove or mitigate the infectious hazard prior to transport.

346.2 Division 6.1, Toxic Substances Mailability

346.21 General

The following conditions apply for mailing Division 6.1 toxic substances:

a. **International Mail:** Division 6.1 toxic substances or poisons and irritating materials are prohibited.

b. **Domestic Mail via Air or Surface Transportation:** Division 6.1 toxic substance or poison that can qualify as a Limited Quantity/consumer commodity material is permitted when packaged under the applicable requirements in Appendix C (*Packaging Instruction 6A*). Certain other poisonous materials are permitted to be mailed only between authorized parties under specific conditions as specified in 346.21(b).

The following materials are permitted to be mailed only within the conditions noted:

a. **Limited Quantity:** Division 6.1 toxic substances that qualify as a Limited Quantity and are designated as consumer commodity

materials are mailable by air or surface transport when all applicable conditions are met.

b. **Toxic Substances with LD_{50} Oral Toxicity of 50 mg/kg or Less:** Division 6.1 toxic substances having LD_{50} for oral toxicity greater than 5 mg/kg but less than or equal to 50 mg/kg are mailable only when sent between authorized parties under specified conditions:

(1) **Scientific Use:** Toxic substances intended for scientific use (not outwardly or inherently dangerous or injurious to life, health, or property) may be sent only between manufacturers, dealers, bona fide experimental or research laboratories, and employees of federal, state, or local governments designated by the agency head for official use. A Shipper's Declaration for Dangerous Goods is required for domestic air transportation.

(2) **Poisonous Drugs and Medicines:** Poisonous drugs and medicines may be sent only from manufacturers or dealers to licensed professionals, including physicians, surgeons, dentists, pharmacists, druggists, cosmetologists, barbers, and veterinarians (18 U.S.C. § 1716). In limited cases, prescription drugs may be returned to the manufacturer or its registered agent, as specified in 453.36.

346.22 Division 6.1, Toxic Substances Packaging, Marking, Labeling, and Documentation

Packaging, marking, labeling, and documentation requirements for mailable toxic substances are as follows:

a. **Toxic Substances with LD_{50} Oral Toxicity of 50 mg/kg or Less:** All applicable requirements in 346.21, as well as *Packaging Instruction 6B* in Appendix C, must be met. The address side of each mailpiece must be clearly and durably marked with the proper shipping name and UN number of the material (unless exempted by 453.4).

b. **Air Transportation:** Packages containing mailable Class 6 materials must display the DOT diamond-shaped marking, with a black top and bottom, a black border, and a white or contrasting background. A black symbol "Y" must be clearly visible at the center of the diamond-shape. Each mailpiece must also be marked with the proper shipping name ("Consumer Commodity") and identification number ("ID8000"), and display an approved DOT Class 9 hazardous material warning label (refer to Exhibit 325.4(b)). A completed Shipper's Declaration for Dangerous Goods, prepared in triplicate, must be affixed to the outside of the mailpiece.

c. **Surface Transportation:** Packages containing mailable Class 6 materials must be plainly and durably marked on the address side with an approved DOT Limited Quantity surface marking (refer to 325.5). Limited Quantity ground markings for surface shipments do not require a shipping name or identification number. Limited Quantity material must meet the applicable requirements specified in 346.21 and (9). *Packaging Instruction 6A* in Appendix C must be followed.

d. **Marking Specifications:** Markings must be durable, legible, and readily visible, applied to at least one side or end of the outer packaging. The diamond-shaped border must be at least 2 mm in width, with a minimum side dimension of 100 mm, unless the package size necessitates a reduced marking of no less than 50 mm on each side.

346.23 Nonregulated Toxic Materials

Liquids and solids such as pesticides, insecticides, herbicides, and irritating material (346.11(b)), that do not meet the classification criteria of a hazardous material per 49 CFR § 172.101 with an oral LD50 value greater than 300 mg/kg are mailable but must be packaged in rigid outer packaging (refer to 339.4) and be able to withstand normal transit and handling. Liquids must also follow the conditions provided in 451.3(a).

346.24 Nonmailable Division 6.1 Toxic Substances

The following Division 6.1 materials are nonmailable:

a. **Toxic Substances:** Any toxic material with an oral toxicity of LD_{50} of 50 mg/kg or less is nonmailable, except when sent between authorized parties under the conditions permitted in (9)(b). Examples of nonmailable toxic materials include, but are not limited to, the following:

(1) Aniline oil (UN1547).
(2) Bromoacetone (UN1569).
(3) 3-Chloro-4-methylphenyl isocyanate (UN2236).
(4) Chloropicrin (UN1580).
(5) Cyanogen bromide (UN1889).
(6) Hexaethyl tetraphosphate, liquid or solid (UN1611).
(7) Hydrocyanic acid aqueous solutions (UN1613).
(8) Methyl bromide (UN1062).
(9) Methyl parathion, liquid (NA3018).
(10) Motor fuel antiknock mixtures (UN1649).
(11) Organic phosphate compound (NA1955).
(12) Parathion (NA1967).
(13) Phenylcarbylamine chloride (UN1672).
(14) Tetraethyl dithiopyrophosphate (UN1704).
(15) Tetraethyl lead, liquid (NA1649).
(16) Tetraethyl pyrophosphate, liquid (NA3018).
(17) Thiophosgene (UN2474).

b. **Irritating Materials:** All irritating materials are nonmailable. Examples include the following:

(1) Bromobenzyl cyanide (UN1694).
(2) Chloroacetophenone (UN1697).
(3) Diphenylamine chloroarsine (UN1698).
(4) Diphenylchloroarsine (UN1699).

(5) Tear gas (UN1700, NA1693, and UN1693), except for those containing oleoresin capsicum.

346.3 Division 6.2, Infectious Substances Mailability

346.31 General

The following apply:

a. Conditions for mailing Division 6.2 infectious substances:

(1) **International Mail:** Category A infectious substances are nonmailable. Category B infectious substances (as defined in 346.12(a)2) are permitted when they are intended for medical or veterinary use, research, or laboratory certification related to public health, and are properly prepared for mailing. The mailer must receive written approval from the director, Product Classification. (Refer to 214 for contact information). See 622.2 and *Mailing Standards of the United States Postal Service*, International Mail Manual (IMM), section 135, for specific requirements.

(2) **Domestic Mail:** Infectious substances are mailable only when intended for medical or veterinary use, research, or laboratory certification related to public health, and must be properly prepared to withstand shocks, pressure changes, and other conditions incident to ordinary handling in transit. The following substances are mailable subject to the corresponding packaging requirements:

(a) **Category B Infectious Substance:** *Packaging Instruction 6C*.

(b) **Sharps and Other Mailable Regulated Medical Waste:** *Packaging Instruction 6D*.

(c) **Used Health Care Products:** *Packaging Instruction 6E*.

(d) **Forensic Materials:** *Packaging Instruction 6F*.

(e) **Nonregulated Materials:** *Packaging Instruction 6G*.

(f) **Exempt Human or Animal Specimens:** *Packaging Instruction 6H*.

b. **Special conditions:** The following items are permitted to be mailed within specific quantity limits and packaging conditions specified in 346.3:

(1) Infectious substances.

(2) Biological products.

(3) Cultures and stocks.

(4) Exempt human or animal specimens.

(5) Patient specimens.

(6) Regulated medical waste.

(7) Sharps medical waste.

(8) Toxins.

(9) Used health care products.

346.32 Division 6.2, Infectious Substances Packaging, Marking, Labeling, and Documentation

The proper packaging, marking, labeling, and documentation for mailable Division 6.2 materials are described in the following sections.

All mailable materials, as identified in 346.3, must be packaged in accordance with specified guidelines to ensure safe transit. Exhibit 346.32 provides the relevant reference within 346 for the proper packaging requirements of each type of mailable material.

Exhibit 346.32
Packaging References for Mailable Materials, Infectious Substances (Hazard Class 6, Division 6.2)

	Packaging Standards[1]		
Material Being Mailed	**Nonregulated**	**Category A**	**Category B**
Blood for Transfusion	346.325	nm	346.321
Biological Product	346.325	nm	346.321
Culture or Stock	346.325	nm	346.321
Patient Specimen	346.325	nm	346.321
Exempt Human or Animal Specimen	346.327	n/a	n/a
Forensic Material	346.325	nm	346.324
Regulated Medical Waste	346.322	nm	346.322
Sharps Waste	346.322	nm	346.322
Toxin[2]	346.22	nm	346.321
Treated Medical Waste	346.325	n/a	n/a
Used Health Care Product	346.323	nm	346.323

1. *nm = Nonmailable.*
   n/a = Not applicable.
2. *Toxin means a Division 6.1 material from a plant, animal, or bacterial source. A toxin containing an infectious substance or a toxin contained in an infectious substance must be classified as Division 6.2; described as an infectious substance; and assigned to UN2814, UN2900, or UN3373, as appropriate. A Division 6.1 toxin that can qualify as Limited Quantity surface is permitted when packaged in accordance with 346.31b or 346.22.*

346.321 UN3373 Category B Infectious Substances

Note: Refer to *Packaging Instruction 6C* in Appendix C.

Regulated medical waste and sharps medical waste containing or suspected to contain a Category A infectious substance is not mailable. Category B infectious substances that meet the definition in 346.12(a)2 require triple packaging, must adhere to the packaging requirements in 49 CFR § 173.199, and be shipped via *Priority Mail* or *Priority Mail Express*. Packaging specifics include the following:

a. **Primary Receptacles:** Each primary receptacle containing a liquid must be leakproof and surrounded by material sufficient to protect the primary receptacle and absorb the total amount of liquid in case of leakage or breakage. Receptacles containing solids must be sift-proof. Each receptacle may hold up to 1 liter (34 ounces) for liquids or 4 kg (8.8 pounds) of solids.

b. **Secondary Packaging:** Secondary packaging for liquids must be leakproof. Secondary containers for solids must be sift-proof. The primary receptacle(s) and secondary packaging must be enclosed in a rigid outer packaging. Two or more primary receptacles, totaling no more than 4 liters (1 gallon) of liquid or 4 kg (8.8 pounds) of solids, may be enclosed in a single secondary packaging.

c. **Biohazard Symbol:** The secondary packaging must be marked with the international biohazard symbol shown in Exhibit 346.321

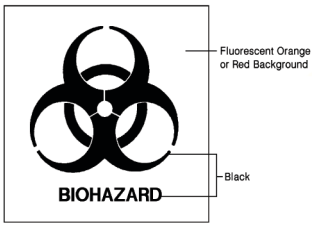
d. **Pressure Standards:** The primary receptacle or secondary packaging must be capable of withstanding, without leakage, an internal pressure differential of no less than 95 kPa (0.95 bar, 14 psi) across a temperature range of -40° F to 130° F (-40° C to 55° C).

e. **Marking Requirements:** Mailpieces sent under 346.321 must be marked with the shipping name "Biological Substance, Category B" and "UN3373" in accordance with 49 CFR § 173.199(a)(5) and as shown in Exhibit 346.12 (on the address side of the package unless specified in 221.1 and 325.1). Regulated medical waste and sharps medical waste, defined in 346.12(f) and 346.12(g), must be marked with identification number UN3291. Refer to 346.322 for additional guidance.

f. **Orientation Arrows:** Orientation arrows are not required on these mailpieces but may be included.

g. **Contact Information:** The outer packaging must display the name and telephone number of a person with comprehensive emergency response and incident mitigation knowledge about the shipped material, or of someone who can provide immediate access to the person with such information.

Exhibit 346.321
International Biohazard Symbol



346.322 **Sharps Waste and Other Mailable Regulated Medical Waste**

Note: Refer to Packaging Instructions 6D in Appendix C.

Regulated medical waste and sharps medical waste containing or suspected to contain a Category A infectious substance is not mailable. Regulated medical waste and sharps medical waste as defined in 346.12(f) and 346.12(g) and containing materials classified as Category B infectious substances must be marked UN3291 and are permitted for mailing only using USPS Returns Service (refer to DMM 505.3) via USPS Ground Advantage service. The following requirements apply:

a. **Authorization:** Vendors providing complete medical waste or sharps waste mailing container systems (including all component parts required to safely mail such waste to a storage or disposal facility) must obtain authorization from the Postal Service prior to mailing. Before applying for authorization, each type of mailing container system must be tested and certified under the standards in 346.322(d) by an independent testing facility. Authorization requests must be sent to the director, Product Classification at Postal Service Headquarters (refer to 214 for address), and must include:

(1) An irrevocable $50,000 surety bond or letter of credit as proof of sufficient financial responsibility to cover disposal costs if the vendor ceases doing business before all its waste container systems are disposed of or to cover cleanup costs if spills occur while the containers are in Postal Service possession.

(a) The surety bond or letter of credit must be issued in the name of the vendor seeking the authorization and must name the Postal Service as the beneficiary or obligee.

(b) Vendors must provide a list of distributors, including firm names, addresses, and telephone numbers, to the Postal Service on request. Vendors who market their containers to distributors are responsible for disposal and cleanup costs attributed to those containers.

(2) Vendor's headquarters or business office address.

(3) Name, address, and phone number of each storage and disposal site.

(4) List of all types of mailing container systems to be covered by the request, complete samples of each mailing container system, and proof of package testing certifications performed by the independent testing facility that subjected the packaging materials to the testing requirements in 346.322(d).

(5) A copy of the proposed shipping paper to be used with each mailing container system.

(6) A 24-hour toll-free telephone number for emergencies.

(7) List of the types of waste to be mailed for disposal in each mailing container system.

(8) A copy of the USPS Returns service label specifying that USPS Ground Advantage be used with each mailing container system.

(9) Address of the Post Office or postage-due unit where the containers are delivered.

b. **Packaging Requirements:** Regulated medical waste and sharps medical waste that also meet the definition of a Category A infectious substance are nonmailable, except for medical professional packages identified in 346.322(b)6, which may not weigh more than 35 pounds. Medical waste materials treated - through steam sterilization, chemical disinfections, or other appropriate methods - to remove Category A or Category B infectious substance must be packaged in accordance

with 346.325. The packaging for regulated medical waste and sharps medical waste containing or suspected of containing a Category B infectious substance is subject to the following standards:

(1) **Primary Receptacle:** Primary receptacles must be rigid, securely sealed, leakproof, and puncture-resistant (for sharps) with a maximum capacity of 3 gallons for sharps and 5 gallons for waste. They may contain up to 50 ml (1.66 ounces) of residual waste liquid. Each primary receptacle must display the international biohazard symbol shown in Exhibit 346.321. Package testing results must confirm that the contents did not penetrate through the primary receptacle during package testing and that the primary receptacle can maintain its integrity at temperatures as low as 0°F and as high as 120° F (-18° C to 49° C).

(2) **Secondary Packaging:** The primary receptacle must be enclosed within a watertight secondary packaging or containment system, which may consist of multiple components. If one of the components is a plastic bag, it must be at least 4 mil thick and combined with a fiberboard box; a plastic bag by itself does not suffice. Multiple primary receptacles may be enclosed within one secondary packaging but must securely hold them to prevent breakage during ordinary processing. The secondary packaging must then be placed within a strong outer packaging constructed of 200-pound grade corrugated fiberboard. Joints and flaps on the outer packaging must be securely fastened with water-resistant tape, glue, or stitching to maintain the integrity of the packaging. Fiberboard boxes with interlock bottom flaps (i.e., easy-fold) are not permitted as outer packaging unless reinforced with water-resistant tape. The secondary packaging must fit securely and snugly within the outer packaging to prevent breakage during ordinary processing.

(3) **Absorbent Material:** Absorbent material must be included within each primary receptacle and retain three times the total liquid allowed in the primary receptacle (150 ml per primary receptacle) in case of leakage.

(4) **Weight Limits:** Each mailpiece must not exceed 25 pounds, with the exception of Medical Professional Packages (as identified in 346.322(b)6), which may weigh up to 35 pounds. The maximum allowable weight must be printed on the exterior of the packaging and on the assembly and closure instructions included with each mailpiece. Each mailpiece must be tested at the identified maximum allowable weight.

(5) **Assembly Instructions:** Each mailing container system must include a step-by-step instruction sheet from the vendor detailing the proper sequence and method of container system assembly prior to mailing to prevent failure due to improper assembly. The instruction sheet must also include a customer service telephone number or provide specific information that directs users to locate such information elsewhere on the container system.

(6) **Medical Professional Packages:** Intended primarily for small medical offices, though not restricted to such use, these packages may use one primary receptacle larger than 5 gallons to mail pre-primary sharps receptacles (i.e., sharps receptacles normally used in doctors' offices) and other regulated medical waste under the following conditions:

(a) Compliance Requirements: The mailpiece must meet all requirements in 346.32 except the primary receptacle capacity limits of 346.322(b)1.

(b) Pre-Primary Sharps Receptacles: Only rigid, securely closed, puncture- and leak-resistant pre-primary sharps receptacles that meet or exceed Occupational Safety and Health Administration (OSHA) standards as identified in 29 CFR § 1910.1030 may be placed inside the primary receptacle. Each pre-primary sharps container may contain no more than 50 ml (1.66 ounces) of residual waste liquid. Several pre-primary sharps receptacles may be enclosed in the single primary receptacle.

(c) Bagged Waste: Multiple tie-closed plastic bags containing regulated medical waste may be placed within the primary receptacle.

(d) Liner and Absorbent Material: The primary receptacle must be lined with a plastic bag at least 4 mil thick and must include sufficient absorbent material to absorb all residual liquid in the primary receptacle.

(e) Weight Limit: The total weight of the mailpiece must not exceed 35 pounds.

c. **Mailpiece Labeling, Marking, and Documentation:** Regulated medical waste and sharps waste must meet the following requirements:

(1) **Labeling of Primary Receptacle and Outer Packaging:** Each primary receptacle and outer packaging must display a securely affixed, non-detachable label that includes:

(a) The vendor's company name (as indicated in 346.322(a)).

(b) The USPS Authorization Number.

(c) The container ID number or unique model number confirming that the packaging material is certified and that the vendor obtained the authorization required by 346.322(a).

(d) Labels placed on the top or side of the packaging.

(2) **Biohazard Symbol:** Both the primary receptacle(s) and the outer packaging must display the international biohazard symbol in black with a fluorescent orange or fluorescent red background as shown in Exhibit 346.321. The symbol on the outer packaging must measure at least 3 inches high and 4 inches wide.

(3) **Waste Shipping Paper:** Each mailpiece must have a four-part waste shipping paper, which must be affixed to the outside of the mailpiece within an envelope or similar carrier that allows easy opening and resealing for document review. The shipping paper

must comply with all applicable requirements imposed by the laws of the state from which the container system is mailed. At minimum, the information in Exhibit 346.322 must be included.

(4) **USPS Returns Service Label:** The outer packaging must display a properly prepared USPS Returns service label (refer to DMM section 505.3) specifying USPS Ground Advantage. The account must be in the same name as the authorized medical-waste vendor.

(5) **Package Orientation Marking:** The outer packaging must display orientation markings on two opposite side walls per 49 CFR § 173.312, indicating the upright position of the mailpiece for proper handling.

(6) **Shipping Name and UN Number Marking:** Containers holding regulated medical waste or sharps waste must be marked with the correct UN number and proper shipping name (e.g., "Regulated Medical Waste, UN3291" or "Regulated Medical Waste-Sharps, UN3291"). The shipping name, identification number, and any warning labels (if applicable) must appear on the address side of the package unless specified in 221.1 and 325.1.

(7) **Vendor Retrieval of Held Mailpieces:** Vendors are responsible for retrieving mailpieces held at processing facilities due to issues such as improper labeling (e.g. missing return address) or improperly completed Shippers' Declarations for Dangerous Goods.

(8) **Medical Professional Packaging Marking:** For medical professional packages, the additional marking "Medical Professional Packaging" must be clearly printed on the address side of the outer packaging in lettering at least 2 inches high.

Exhibit 346.322
Shipping Paper for Regulated Medical Waste and Sharps Waste Containers

Section	Information Required
1. Generator (Mailer)	a. Name. b. Complete address (not a Post Office box). c. Telephone number. d. Description of contents of mailing container. "Regulated Medical Waste" or "Regulated Medical Waste-Sharps" is required as appropriate. e. Date container was mailed. f. State permit number of approved facility in which contents are to be disposed of.
2. Destination Facility (Disposal Site)	Complete address (not a Post Office box).
3. Generator's (Mailer's) Certification	The following certification statement must be printed on the shipping paper: "I certify that this container has been approved for the mailing of [insert either "regulated medical waste" or "sharps waste," as appropriate], has been prepared for mailing in accordance with the directions for that purpose, and does not contain excess liquid or nonmailable material in violation of the applicable Postal Service regulations. I AM AWARE THAT FULL RESPONSIBILITY RESTS WITH THE GENERATOR (MAILER) FOR ANY VIOLATION OF 18 U.S.C. § 1716 WHICH MAY RESULT FROM PLACING IMPROPERLY PACKAGED ITEMS IN THE MAIL. I also certify that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and in proper condition for carriage by air according to the national governmental regulations." This statement must be followed by printed or typewritten name of generator (mailer), signature of generator, and date signed.
4. Destination Facility (Storage or Disposal Site)	The following certification statement of receipt, treatment, and disposal must be printed on the shipping paper: "I certify that the contents of this container have been received, treated, and disposed of in accordance with all local, state, and federal regulations." This statement must be followed by printed or typewritten name of an authorized recipient at destination facility, signature of authorized recipient, and date signed.
5. Transporter Intermediate Handler Other Than the Postal Service (If Different From Destination Facility)	a. Name. b. Complete address (not a Post Office box). c. Printed or typewritten name of transporter or intermediate handler. d. Signature of transporter or intermediate handler and date signed.
6. Serialized Shipping Papers	Each waste shipping paper or mail disposal service shipping record must be serialized using a unique numbering system for identification purposes.
7. Comment Area	Each shipping paper must contain an area designated for entering comments or noting discrepancies.
8. Completion and Distribution of Shipping Paper	Each shipping paper must contain instructions for properly completing the four-part form. Copies of the form must be distributed as follows: a. One copy must be kept by generator (mailer). b. One copy must be kept by transporter or intermediate handler for 90 days. c. One copy must be kept by destination facility for 90 days. d. One copy must be mailed to generator by destination facility.
9. Emergency Telephone Number	Each shipping paper must bear the following statement with appropriate information: "IN CASE OF EMERGENCY, OR THE DISCOVERY OF DAMAGE OR LEAKAGE, CALL 1-800-###-####."

d. **Package Testing:** Vendors must submit package-testing results from an independent testing facility to the director, Product Classification (refer to 214 for contact information) for each package for which they are requesting authorization. In addition, vendors must submit package testing results from an independent testing facility either when the design of a container system changes or every 24 months, whichever occurs first. The test results must demonstrate that, if subjected to the environmental conditions and test requirements in 49 CFR and 346.322(e), no mailpiece contents would be released into the environment and the package's effectiveness would remain intact. The Postal Service may require proof of accreditation or other documentation validating the independent testing facility's credentials. Packages intended for approval as medical professional packages may not be tested using pre-primary receptacles that are currently or have previously been approved as Postal Service primary receptacles. Test reports must identify the brand name of the pre-primary receptacles used during testing.

e. **Testing Criteria:** Each mailpiece must pass the following tests:

(1) **Leakproof Test:** One primary receptacle with the lid secured and without secondary or outer packaging. The test duration must be at least 5 minutes and must be conducted at 20 kPa (3 psi). The pass/fail criterion is as follows: no air leakage from anywhere other than the closure of the primary receptacle, provided primary receptacle passes the watertightness test. The watertightness test involves placing 50 ml of deionized water in the primary receptacle, securing the closure, and then turning the packaging on its side to check for any evidence of leakage. Any evidence of water leaking from the primary receptacle constitutes failure.

(2) **Stacking Test:** One mailpiece must pass the stacking test in 49 CFR § 178.606. A dynamic compression test is applied to the empty, unsealed mailpiece, without primary receptacles, and with the maximum weight marked on the outer packaging and instructions. A factor of 1.5 is used to calculate the test load. The pass/fail criteria is as follows: no sidewall buckling sufficient to damage the primary receptacle's contents; maximum deflection is 1 inch.

(3) **Vibration Test:** One mailpiece must pass the vibration test in 49 CFR § 178.608.

(a) The test mailpiece is filled with sharps or other regulated medical waste to the maximum vendor-identified weight, not to exceed 25 pounds (35 pounds for medical professional packages), as specified on the outer packaging and on the assembly and closing instructions.

(b) The sample is prepared as it would be for mailing.

(c) The pass/fail criterion is as follows: No rupture, cracking, or splitting of any primary receptacle.

(4) **Wet Drop Test:** Five mailpieces must pass the wet drop test in 49 CFR § 178.609e.

(a) Each test mailpiece is prepared as it would be for mailing and filled with sharps or other regulated medical waste to the maximum vendor-identified weight, not to exceed 25 pounds (35 pounds for medical professional packages), as specified on the outer packaging and on the assembly and closing instructions.

(b) Each mailpiece undergoes a water spray treatment, and individual mailpieces are tested by drop orientation (top, longest side, shortest side, and corner).

(c) The pass/fail criteria are as follows: No rupture, cracking, splitting or penetration of contents through the body or lid of any primary receptacle.

(5) **Cold Drop Test:** Five mailpieces must pass the cold drop test in 49 CFR § 178.609f.

(a) The test mailpiece is prepared as it would be for mailing and filled with sharps or other regulated medical waste to the maximum vendor-identified weight, not to exceed 25 pounds (35 pounds for medical professional packages), as specified on the outer packaging and on the assembly and closing instructions.

(b) Each mailpiece chilled as described in the test and individual mailpieces are tested by drop orientation (top, longest side, shortest side, and corner).

(c) The pass/fail criteria are as follows: No rupture, cracking, splitting, or penetration of contents through the body or lid of any primary receptacle.

(6) **Impact Test:** One mailpiece must pass the test in 49 CFR § 178.609h.

(a) The test mailpiece is prepared as it would be for mailing and filled with sharps or other regulated medical waste to the maximum vendor-identified weight, not to exceed 25 pounds (35 pounds for medical professional packages), as specified on the outer packaging and on the assembly and closing instructions.

(b) The pass/fail criteria are as follows: No rupture, cracking, splitting or penetration of contents through the body or lid of any primary receptacle.

(7) **Puncture-Resistant Test:** Package testing results must demonstrate that, during all the previous tests, the contents did not penetrate through the primary receptacle.

(8) **Temperature Test:** Package testing results must demonstrate that each primary receptacle maintained its integrity when exposed to temperatures as low as 0° F and as high as 120° F (-18° C to 49° C).

(9) **Absorbency Test:** Package testing results must demonstrate that the primary receptacle(s) contain enough absorbent material to absorb three times the total liquid allowed within the primary receptacle in case of leakage. Absorbency is confirmed by pouring 150 ml of deionized water into the primary receptacle(s), turning them upside down, and ensuring no free liquid remains unabsorbed. Any evidence of free liquid constitutes failure.

(10) **Watertight Test:** Package testing results must demonstrate that no leakage occurred when 50 ml of deionized water was placed into the secondary containment system and the entire system was turned upside down for 5 minutes.

f. **Suspension of Authorization:** The Postal Service reserves the right to suspend a vendor's authorization if it determines that a mailpiece no longer meets the standards for mailing sharps medical waste and regulated medical waste containers, or if it poses an unreasonable safety risk to Postal Service employees, Postal Service networks, or the public. The suspension can take effect immediately, rendering the mailpiece nonmailable. The vendor has 7 calendar days from the suspension letter date to contest the decision by writing to the director, Product Classification (refer to 214 for contact information) and providing evidence supporting reconsideration. Any suspension order remains in effect throughout an appeal or challenge process.
Upon notification of suspension of authorization to mail sharps or regulated medical waste containers, the vendor must immediately:

(1) Recall all identified containers

(2) Notify all customers that mailing of the identified containers is prohibited.

(3) Suspend sales and distribution of all identified containers.

(4) Collect the identified containers from distributors, consumers, and the Postal Service without using the mail and in accordance with all federal and state regulations.

346.323 Used Health Care Products

Note: Refer to *Packaging Instruction 6E* in Appendix C.

A used health care product containing or reasonably suspected to contain a Category A material is nonmailable. However, a used health care product not suspected to contain an infectious material, or that is known or suspected to contain a Category B infectious substance and is being returned to the manufacturer or manufacturer's designee, is mailable with *Priority Mail* or *Priority Mail Express*, provided it meets the following packaging requirements:

a. **Primary Receptacle Requirements:** Each used health care product must be drained of liquid to the extent possible and placed in a watertight primary receptacle designed and constructed to remain intact under normal transport conditions. If the product can cut or penetrate skin or packaging material, the primary receptacle must be

puncture-resistant and capable of securely retaining the product under normal transport conditions. The primary receptacle must be marked with the international biohazard symbol shown in Exhibit 346.321.

b. **Secondary Packaging Requirements:** Each primary receptacle must be enclosed within a watertight secondary packaging designed and constructed to remain intact under normal transport conditions. The secondary packaging must also be marked with the international biohazard symbol shown in Exhibit 346.321.

c. **Outer Packaging Requirements:** The secondary packaging must be placed within an outer packaging with sufficient cushioning material to prevent movement between the secondary packaging and the outer packaging. An itemized list of the contents of the primary receptacle and information concerning possible contamination with a Division 6.2 material, including its possible location on the product, must be placed between the secondary packaging and the outer packaging. Shipping documentation and a content marking on the outer packaging is not required.

346.324 **Forensic Material in Category B**

Note: Refer to *Packaging Instruction 6F* in Appendix C.

Forensic material containing a biological material (e.g., tissue, body fluid, excreta, secreta) sent on behalf of federal, state, local, or Indian tribal government agencies must be packaged in accordance with 346.325 if it is not known or suspected to contain a Category A or Category B infectious substance. Forensic material containing or suspected to contain a Category A infectious substance is nonmailable. Forensic material containing or suspected to contain a Category B infectious substance, as defined in 346.321, is mailable via *Priority Mail* or *Priority Mail Express* when triple-packaged in a primary receptacle, secondary packaging, and a rigid outer packaging as specified below:

a. **Primary Receptacle Requirements:** The forensic material must be placed in a securely sealed primary receptacle, surrounded by absorbent material (for liquids) and cushioning to prevent breakage. The absorbent material must be sufficient to absorb the entire liquid contents in case of leakage. The primary receptacle must be marked with the international biohazard symbol shown in Exhibit 346.321.

b. **Secondary Packaging Requirements:** The primary receptacle, along with the absorbent and cushioning material, must be enclosed in a watertight and securely sealed secondary packaging that also displays the international biohazard symbol shown in Exhibit 346.321.

c. **Outer Packaging Requirements:** The secondary packaging must be snugly packed within a strong, rigid outer packaging that is securely sealed. Shipping documentation and a content marking on the outer packaging is not required.

346.325 **Nonregulated Biological Materials Mailability**

The following materials are not regulated as Division 6.2 hazardous materials and are mailable when the packaging requirements specified in Packaging Instruction 6G in Appendix C are met:

a. **Biological Products:** Includes experimental or investigational products subject to federal approval, permit, review, or licensing requirements (e.g., Food and Drug Administration or the U.S. Department of Agriculture). Products known or suspected to contain a Category B infectious substance must be marked with identification number UN3373 (as shown in Exhibit 346.321) and packaged per 346.321. Biological products known or suspected to contain a Category A infectious substance are nonmailable.

b. **Blood and Blood Components:** Includes blood, plasma, plasma derivatives, blood components, tissues, or organs for transplants, and other human cell-based products regulated under the Public Health Service Act (42 U.S.C. § 264-272) or the Food, Drug, and Cosmetic Act (21 U.S.C. § 332 et seq.).

c. **Blood Samples for Testing:** Blood, plasma, and components collected for blood transfusion or the preparation of blood products and sent for testing as part of the collection process are mailable unless believed to contain a Category B infectious substance, in which case it must be shipped as a Category B infectious substance. Materials known or suspected to contain a Category A infectious substance are nonmailable.

d. **Dried Blood Spots and Fecal Occult Blood Detection Specimens:** These materials are not classified as exempt human or animal specimens and are mailable.

e. **Forensic Materials:** Biological materials (e.g., tissue, body fluid, excreta, or secreta) transported on behalf of federal, state, local, or Indian tribal government agencies are mailable if not expected to contain a Category A or Category B infectious substance. Forensic materials known or suspected to contain a Category B infectious substance must be shipped as a Category B infectious substance; those known or suspected to contain a Category A infectious substance are nonmailable.

346.326 Nonregulated Biological Materials Packaging, Marking, Labeling, and Documentation

Note: Refer to *Packaging Instruction 6G* in Appendix C.

Nonregulated materials, as defined in 346.325, are not classified as hazardous, but must be properly packaged when mailed. Regulated medical waste and sharps medical waste must be packaged and mailed under 346.322; used health care products must be packaged and mailed under 346.323; and exempt human and animal specimens must be packaged and mailed under 346.327. All nonregulated materials must be placed within a securely sealed primary receptacle surrounded by sufficient absorbent material (for liquids) and cushioning to prevent breakage. The absorbent material must be sufficient to absorb the entire liquid contents in case of leakage. Either the primary receptacle or the inner packaging must be marked with the international biohazard symbol shown in Exhibit 346.321. The primary receptacle, along with the absorbent and cushioning material, must be enclosed within a strong, rigid outer packaging that is securely

sealed. Shipping documentation and a content marking on the outer packaging is not required.

Nonregulated material specimens and biological products are subject to the following packaging standards:

a. **Liquid Patient Specimens and Biological Products:** Liquid nonregulated patient specimens, forensic specimens, or biological products (e.g., polio vaccine) must be packaged as follows:

(1) **Not Exceeding 50 ml:** A specimen or biological product totaling 50 ml or less per mailpiece must be packaged in a securely sealed primary receptacle. Multiple primary receptacles may be enclosed within a single mailpiece, provided the combined volume does not exceed 50 ml.

(a) **Primary Receptacle Requirements:** Each primary receptacle must be surrounded by material sufficient to protect it and absorb the total amount of liquid in case of leakage or breakage.

(b) **Secondary Packaging Requirements:** The primary receptacle(s), along with the absorbent and cushioning material, must be enclosed in a secondary packaging with a securely sealed, leakproof barrier that can prevent failure of the secondary packaging if the primary receptacle(s) should leak during transport. The secondary packaging must be marked with the international biohazard symbol shown in Exhibit 346.321, except when the secondary packaging also serves as the outer packaging.

(c) **Outer Packaging Requirements:** The secondary packaging may serve as the outer packaging if it has sufficient strength to withstand ordinary postal processing. If the secondary packaging serves as the outer packaging, the biohazard symbol must appear on the inner packaging or on the primary receptacle. Shipping documentation and a content marking on the outer packaging is not required.

(2) **Exceeding 50 ml:** A liquid patient specimen, forensic material, or biological product exceeding 50 ml per mailpiece must be packaged in a securely sealed primary receptacle. A single primary receptacle must not contain more than 500 ml of specimen; multiple primary receptacles may be enclosed in a single secondary packaging, provided the combined volume does not exceed 500 ml.

(a) **Primary Receptacle Requirements:** Each primary receptacle must be surrounded by material sufficient to protect it and absorb the total amount of liquid in case of leakage or breakage.

(b) **Secondary Packaging Requirements:** The primary receptacle(s), along with the absorbent and cushioning material, must be enclosed in a secondary packaging with a securely sealed, leakproof barrier that can prevent failure of the secondary packaging if the primary receptacle(s)

should leak during transport. The secondary packaging must be securely and snugly enclosed in a fiberboard box (or container of equivalent strength as the outer packaging) and be marked with the international biohazard symbol shown in Exhibit 346.321.

(c) **Outer Packaging Requirements:** The secondary packaging cannot serve as the outer packaging. Shipping documentation and a content marking on the outer packaging is not required.

b. **Solid or Dry Specimen:** Solid or dry specimens (e.g., saliva swab, blood spot, fecal smear, culture or stock, forensic material) must be completely dried before packaging in a mailing container or envelope.

(1) **Primary Receptacle Requirements:** If used, a breakable primary receptacle must be surrounded by material sufficient to protect it from shock and pressure changes. When required, the cushioning material must surround the primary receptacle.

(2) **Secondary Packaging Requirements:** The primary receptacle(s), along with the absorbent and cushioning material, must be enclosed in a secondary packaging with a securely sealed, sift-proof barrier that can prevent failure of the secondary packaging if the primary receptacle(s) should break during transport. The secondary packaging must be securely sealed and be marked with the international biohazard symbol shown in Exhibit 346.321, except when the secondary packaging also serves as the outer packaging.

(3) **Outer Packaging Requirements:** The secondary packaging may serve as the outer packaging if it has sufficient strength to withstand ordinary postal processing. If the secondary packaging serves as the outer packaging, the biohazard symbol must appear on the inner packaging or on the primary receptacle. Shipping documentation and a content marking on the outer packaging is not required.

346.327 Exempt Human or Animal Specimens

Note: Refer to *Packaging Instruction 6H* in Appendix C.

Exempt human or animal specimens as defined in 346.12(d), are not regulated as hazardous materials but must be packaged to meet mailing standards, including being triple-packaged (i.e., with primary receptacle, secondary packaging, and outer packaging). The requirements for this packaging are as follows.

a. **Primary Receptacle Requirements:** A single primary receptacle must not contain more than 500 milliliters (ml) of a liquid specimen or 500 grams of a solid specimen. Multiple primary receptacles may be enclosed within a single secondary packaging, provided the combined volume does not exceed 500 ml (for liquids) or 500 grams (for solids). Each primary receptacle must be leakproof or sift proof and individually wrapped or separated with material sufficient to protect it and contain or absorb the total amount of liquid or solid in case of leakage or breakage.

b. **Secondary Packaging Requirements:** The primary receptacle(s), along with the absorbent and cushioning material, must be enclosed in a secondary packaging with a securely sealed, leakproof (for liquids) or sift-proof (for solids) barrier that can prevent failure of the secondary packaging if the primary receptacle(s) should break during transport. The secondary packaging must be securely and snugly enclosed in a fiberboard box (or container of equivalent strength as the outer packaging) and be marked with the international biohazard symbol shown in Exhibit 346.321.

c. **Outer Packaging Requirements:** The primary and secondary packaging must be enclosed in a strong, rigid outer packaging; the secondary packaging cannot serve as the outer packaging. At least one side of the outer packaging must measure a minimum of 3.9 inches by 3.9 inches (100 mm by 100 mm). The outer packaging must be marked on the address side with the words "Exempt human specimen" or "Exempt animal specimen," as appropriate. Shipping documentation and a content marking on the outer packaging is not required.

346.328 **Nonmailable Division 6.2, Infectious Substances**

The following Division 6.2 materials are nonmailable:

a. **Blood for Transfusion:** Blood collected for transfusion and known or suspected to contain a Category A infectious substance.

b. **Biological Products and Specimens:** Biological products, cultures, stocks, or other biological specimens known or suspected to contain a Category A infectious substance. Mailpieces exceeding 4 liters (1 gallon) for liquids or 4 kg. (8.8 pounds) for solids are nonmailable.

c. **Toxins:** Toxins known or suspected to contain a Category A infectious substance. Sharps and Regulated Medical Waste: Sharps medical waste and regulated medical waste containing a Category A infectious substance.

d. **Sharps and Regulated Medical Waste:** Sharps medical waste and regulated medical waste containing a Category A infectious substance.

e. **Used Healthcare Products:** Used healthcare products containing a Category A infectious substance.

346.4 Damaged Packages

If a mailpiece is found containing a nonmailable Class 6 material, or is damaged or leaking during Postal Service handling, the incident must be reported and handled in accordance with POM 139.117 (for immediate threats to persons or property) and 139.118 (if no immediate threat is present). Refer to Handbook EL-812, *Hazardous Materials and Spill Response* (refer to Part VII, "Response to Hazardous Material Incidents and Emergencies," under "Hazardous Materials Incident Reports") for additional handling information. The local Postal Service safety officer (or designee) must immediately initiate the spill response procedures in Handbook EL-812. For spills involving infectious substances (etiologic agents), the following containment and cleanup steps must also be followed:

a. **Glove Use:** Rubber gloves are required throughout the cleanup procedure.

b. **Absorbent Material:** The leaking package must be surrounded by absorbent material.

c. **Secondary Containment:** The leaking package must be placed within another box and securely sealed.

d. **Bagging and Sealing:** The sealed box must then be placed inside a plastic bag and sealed.

e. **Surface Decontamination:** Affected surfaces and gloves must be rinsed with household chlorine bleach, diluted to 1 ounce to 1 gallon of water, and left to stand for 5 minutes. Since chlorine bleach is mildly corrosive, caution is advised. Surfaces must be wiped dry with an absorbent material, which is then bagged and incinerated.

f. **CDC Reporting:** The Centers for Disease Control and Prevention (CDC) must be notified of the damaged package (404-633-5313).

g. **Proper Disposal:** Etiologic agents must not be disposed of in regular trash. Disposal guidance should be sought from the area environmental compliance specialist.

347 Radioactive Materials (Hazard Class 7)

347.1 Definition

Radioactive material is defined in 49 CFR § 173.403 as any material containing radionuclides where both the activity concentration and the total activity in the consignment exceed the values specified in the table in 49 CFR § 173.436 or values derived according to the instructions in 49 CFR § 173.433.

347.2 Mailability

347.21 General

The following conditions apply for Hazard Class 7 items:

a. **International Mail:** Radioactive materials bearing or required to bear a Class 7 Radioactive White-I, Radioactive Yellow-II, or Radioactive Yellow-III hazardous materials warning label (refer to Exhibit 325.3) are prohibited. Specific admissibility requirements for international shipments of radioactive material are detailed in 622.3 IMM 135.5. The radioactive activity content must not exceed one-tenth of the limits outlined in Exhibit 347.23.

b. **Domestic Mail via Air Transportation:** All radioactive materials are prohibited.

c. **Domestic Mail via Surface Transportation:** Radioactive materials bearing or required to bear a Class 7 Radioactive White-I, Radioactive Yellow-II, Radioactive Yellow-III hazardous materials warning label, or the Fissile label (refer to Exhibit 325.3) are prohibited. Each package containing mailable radioactive materials must not exceed the activity limits in Exhibit 347.23, and must be categorized as one of the following UN identification numbers:

(1) **UN2910:** Low-risk radioactive material classified as "limited quantity" and "excepted package" under 49 CFR § 172.101.

(2) **UN2911:** Low-risk items like clocks, electronic tubes, or similar devices with radioactive materials in gas or solid form, classified as "excepted package" for simplified handling under 49 CFR § 172.101.

(3) **UN2909:** Manufactured articles containing only natural or depleted uranium or thorium, categorized as excepted package-articles manufactured from uranium or depleted uranium or natural thorium under 49 CFR § 172.101.

347.22 Nonmailable Radioactive Materials

Packages bearing, or required to bear, any Class 7 hazardous materials warning label for radioactive materials, as shown in Exhibit 325.3, are nonmailable. Nonmailable materials found in the mailstream must be reported to appropriate officials in accordance with POM 139.117, as applicable. Emergency procedures are available in 347.5.

347.23 Mailable Radioactive Materials

As stated in 347.21, the only categories of radioactive material that are mailable in international mail or in domestic mail via surface transportation are those that do not have an activity level exceeding the limits in

Exhibit 347.23 and are eligible under 49 CFR to be shipped as excepted packages for:

a. Limited quantities.

b. Instruments and articles.

c. Articles containing natural uranium or thorium.

The mailer must provide accurate documentation verifying activity levels do not exceed permissible limits, when requested by the Postal Service.

Exhibit 347.23
Activity Limits for Mailable Instruments, Articles, and Limited Quantity Radioactive Materials

Nature of Contents	Instruments and Articles		Materials Package Limits[1]
	Limits for Each Instrument or Article[1]	Package Limits[1]	
Solids:			
Special form	10^{-2} A_1	A_1	10^{-3} A_1
Normal form	10^{-2} A_2	A_2	10^{-3} A_2
Liquids			
Tritiated water:			
<0.0037 TBq/liter (0.1 Ci/L)	10^{-3} A_2	10^{-1} A_2	37 TBq (1000 Ci)
0.0037 TBq to 0.037 TBq/L (0.1 Ci to 1.0 Ci/L)			3.7 TBq (100 Ci)
>0.037 TBq/L (1.0 Ci/L)			0.037 TBq (1.0 Ci)
Other Liquids:	10^{-3} A_2	10^{-1} A_2	10^{-4} A_2
Gases			
Tritium2	2×10^{-2} A_2	2×10^{-1} A_2	2×10^{-2} A_2
Special form	10^{-3} A_1	10^{-2} A_1	10^{-3} A_1
Other form	10^{-3} A_2	10^{-2} A_2	10^{-3} A_2

1. *For mixture of radionuclides, refer to 49 CFR § 173.433(d).*
2. *These values also apply to tritium in activated luminous paint and tritium adsorbed on solid carriers.*

347.3 Packaging

Mailable Class 7 materials must follow all applicable conditions within the *Packaging Instruction 7A* in Appendix C.

For mailpieces intended for domestic transportation, the radiation level at any point on the external surface of the mailpiece must not exceed 0.5 millirem per hour.

347.4 Marking

The outside of the primary receptacle or the outside of the secondary packaging must be marked "Radioactive." The address side of the mailpiece must clearly and prominently display one of the following markings, as applicable:

a. **Mailable Limited Quantity Shipments:** "This package conforms to the conditions and limitations specified in 49 CFR § 173.421 for radioactive material, excepted package-limited quantity of material, UN2910, and is within Postal Service activity limits for mailing."

b. **Mailable Instruments and Articles:** "This package conforms to the conditions and limitations specified in 49 CFR § 173.424 for radioactive material, excepted package-instruments or articles, UN2911, and is within Postal Service activity limits for mailing."

c. **Mailable Excepted Articles Containing Uranium or Thorium:** "This package conforms to the conditions and limitations specified in 49 CFR § 173.426 for radioactive material, excepted package-articles

manufactured from natural uranium (or natural thorium), UN2909, and is within Postal Service activity limits for mailing."

Note: For international marking requirements, refer to *Packaging Instruction 7A*, 622.3 and IMM 135.5.

347.5 Emergency Procedures

The following apply:

a. In cases where a nonmailable package of radioactive material is found in the mailstream, the following procedures must be immediately followed:

(1) Place the package at least 15 feet from other mail or personnel. Under no circumstances may the package be dispatched.

(2) Report the mailpiece to the appropriate officials in accordance with POM 139.117 and 139.118, as applicable.

(3) If a package of radioactive material is damaged or is leaking, immediately contact the facility safety officer (or designee). The safety officer will:

(a) Follow the appropriate spill-response procedures.

(b) Isolate the area around the damaged package to prevent contact with people.

(c) Isolate any conveyor, belt, chute, or other equipment or conveyance, including mailbags, in which the radioactive material has leaked or may have leaked.

(d) Rope off or guard the isolated area whenever practical.

(e) Place a temporary sign indicating the presence of radioactive materials and bearing a warning to stay beyond the edge of the roped area.

b. The local postmaster or facility manager must immediately request the assistance of qualified persons to check radiation hazards and to supervise the salvage and decontamination. This assistance may be received from the mailer (if known) or from one of the following contacts:

(1) Nearest office of the Department of Energy (DOE) as listed in Exhibit 347.5 or DOE's national emergency number and website:

DEPARTMENT OF ENERGY (DOE)
EMERGENCY OPERATIONS CENTER

Telephone: 202-586-8100
www.doe.gov

(2) Local health, fire, or police departments.

(3) Local civil defense authorities.

(4) Nearby military installations.

(5) Nearby scientific laboratories.

(6) The Nuclear Regulatory Commission, the Environmental Protection Agency, and the Federal Emergency Management

Agency, whose national emergency numbers and websites are as follows:

NUCLEAR REGULATORY COMMISSION (NRC)

Telephone: 301-816-5100

www.nrc.gov

ENVIRONMENTAL PROTECTION AGENCY (EPA)
NATIONAL RESPONSE CENTER

Telephone: 800-424-8802

www.epa.gov

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)
NATIONAL EMERGENCY COORDINATION CENTER

Telephone: 202-646-2400

www.fema.gov

Exhibit 347.5
DOE Regional Coordinating Offices

Department of Energy Regional Coordinating Offices for Geographical Areas of Responsibility		
Regional Coordinating Office	**Telephone for Assistance**	**Areas Served**
1. Brookhaven, NY	631-344-2200	Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont
2. Oak Ridge, TN	865-576-1005	Arkansas, Kentucky, Louisiana, Mississippi, Missouri, Tennessee, Virginia, West Virginia (includes Puerto Rico and the Virgin Islands)
3. Savannah River, SC	803-725-3333	Alabama, Florida, Georgia, North Carolina, South Carolina
4. Albuquerque, NM	505-845-4667	Arizona, Kansas, New Mexico, Oklahoma, Texas
5. Chicago, IL	630-252-4800	Illinois, Indiana, Iowa, Michigan, Minnesota, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin
6. Idaho Falls, ID	208-526-1515	Colorado, Idaho, Montana, Utah, Wyoming
7. Oakland, CA	925-422-8951	California, Hawaii, Nevada
8. Richland, WA	509-373-3800	Alaska, Oregon, Washington
Headquarters – Washington, DC	202-586-8100	

348 Corrosives (Hazard Class 8)

348.1 Definition

A corrosive is any liquid or solid that causes visible destruction or irreversible alteration in human skin tissue at the site of contact, or a liquid that has a severe corrosion rate on steel. The term "corrosive" includes all items commonly referred to as acids, as well as most batteries.

348.2 Mailability

The following conditions apply for mailing Hazard Class 8 items:

a. **International Mail:** All corrosives are prohibited.

b. **Domestic Mail:** Corrosive materials may be mailable if they meet Limited Quantity requirements for air or surface transportation and comply with the following conditions:

(1) **Liquid mixtures:**

(a) Must be 1 pint (16 oz) or less.

(b) Must contain 15 percent or less corrosive material, with the remainder being non-hazardous unless otherwise specified in 348.22 for a specific corrosive material.

(2) **Solid Mixtures:**

(a) Must be 10 pounds or less per primary receptacle.

(b) Must contain 10 percent or less corrosive material, with the remainder being non-hazardous material unless otherwise specified for a specific corrosive solid.

348.21 Nonmailable Corrosives

The following corrosive materials are nonmailable:

a. **Batteries with Liquid Electrolyte (UN2794, UN2795):** Includes automobile lead acid batteries, except for the non-spillable type permitted under 348.22.

b. **Nitric Acid (UN2031, UN2032).**

c. **Fuming and Spent Sulfuric Acids (UN1831, UN1832).**

d. **Hydrofluoric Acid (UN1790).**

e. **Mercury and Mercury-Containing Devices (UN2809):** Includes metallic mercury and items such as thermometers, barometers, and sphygmomanometers (i.e., blood pressure meters) that contain metallic mercury.

348.22 Mailable Corrosives

As a rule, mailable liquid corrosives are generally limited to 15 percent solution as stated in 348.2, with the following specifications:

a. **Acetic Acid (UN2790):** May be mailable if they meet Limited Quantity requirements for air or surface material, contains less than 80 percent acid, and does not exceed 1 pint. *Packaging Instruction 8A* in Appendix C must be followed.

b. **Batteries:**

(1) **Household Dry-Cell Batteries:** Common household battery types (AA, AAA, C, D, etc.) are generally not regulated as hazardous materials and are mailable. For nickel-metal hydride batteries in sea transportation, refer to 49 CFR § 172.102, Special Provision 130. Packaging requirements in DMM section 601 apply.

(2) **Nonspillable Wet Batteries (UN2800):** Acceptable if completely sealed to prevent the liquid corrosive from spilling during handling and prepared per *Packaging Instruction 8B* in Appendix C.

(3) **Lithium and Lithium-Ion Batteries:** Refer to 349.2.

c. **Hydrochloric Acid (UN1789):** Acceptable only in solutions not exceeding 10 percent acid that qualify as Limited Quantity air or Limited Quantity surface material. *Packaging Instruction 8A* in Appendix C must be followed.

d. **Sulfuric Acid (UN2796):** Acceptable only in solutions of 25 percent or less acid that can qualify as a Limited Quantity air or Limited Quantity surface material. *Packaging Instruction 8A* in Appendix C must be followed.

e. **Dyes (UN2801, UN3147):** Acceptable if the dyes qualify as Limited Quantity air or Limited Quantity surface material and prepared per *Packaging Instruction 8A* in Appendix C.

f. **Photographic Mixtures:** Acceptable if the corrosive liquid solutions for preparing photographic processing mixtures can qualify as a Limited Quantity air or Limited Quantity surface material. *Packaging Instruction*

8A in Appendix C must be followed. When these liquids are in securely closed and sealed bottles that are properly cushioned, they may be packed in the same outer packaging with required amounts of packaged dry chemicals not classified as hazardous materials (provided no dangerous reaction would occur should the contents of the bottles be mixed with the dry chemicals).

g. **Manufactured devices that contain small amounts of mercury (UN3506):** Compact Fluorescent Lamps (CFL) and similar consumer devices containing minute amounts of mercury are mailable by air or surface only when each device, article, or apparatus contains 100 milligrams (mg) (0.0035 ounce) or less of mercury (less than a grain of salt) and each mailpiece contains no more than 1 gram (g) (0.035 ounce) of mercury. Mercury contained in devices categorized under UN3506 typically exists in a vaporized state - no metallic mercury will be visible in UN3506 devices. Refer to *Packaging Instruction 8C* in Appendix C for mailing details.

348.3 Packaging

Mailable corrosives, both liquids and solids, must meet the applicable requirements in 348.2(b) or 348.22, and *Packaging Instruction 8A* in Appendix C.

348.4 Marking and Documentation

Labels and text markings must be placed on the address side of the mailpiece unless otherwise specified in 221.1 and 325.1. Packages containing mailable corrosive material must be marked as follows:

a. **Air Transportation:** Packages containing mailable corrosive material must bear the following:

(1) DOT diamond-shape Limited Quantity Air marking, with the symbol "Y". Refer to Exhibit 325.5.

(2) Class 8 hazardous material warning label.

(3) Applicable ID number and proper shipping name.

(4) A properly completed Shipper's Declaration for Dangerous Goods.

b. **Surface Transportation:** Packages containing mailable Class 8 materials must be plainly and durably marked on the address side with an approved DOT Limited Quantity surface marking (refer to 325.4). Surface shipments bearing the Limited Quantity surface marking are not required to include the proper shipping name and identification number. A shipping paper is not required for mailable Class 8 corrosives sent via surface transportation.

c. **Marking Specifications:** Markings must be durable, legible, and readily visible, applied to at least one side or end of the outer packaging. The diamond-shaped border must be at least 2 mm in width, with a minimum side dimension of 100 mm, unless the package size necessitates a reduced marking of no less than 50 mm on each side.

349 Class 9 Hazardous Materials

Class 9 hazardous material is a substance or article that presents transport hazards that do not meet the definition of any other hazard class. Examples (not all of which are mailable) include lithium batteries, dry ice, magnetized materials, life-saving appliances (e.g., automobile air-bags, self-inflating life vests), and asbestos. Hazard Class 9 materials also include:

a. Any material with anesthetic, noxious, or other similar properties capable of causing extreme annoyance or discomfort to Postal Service personnel or flight crew member.

b. Elevated-temperature materials, hazardous substances, hazardous waste (other than Division 6.2 medical waste), and marine pollutants.

Note: Only lithium batteries, dry ice, magnetized materials and items that can qualify as consumer commodity materials when prepared according to the standards within this section are mailable.

349.1 Mailability

The following conditions apply for mailing Hazard Class 9 items:

a. **International Mail:** All miscellaneous hazardous materials are prohibited, except for certain magnetized materials as permitted in 349.242(a) and IMM 136.1g, and small consumer-type lithium batteries (installed in the equipment they operate) as permitted in 622.5 and IMM 135.6.

b. **Domestic Mail:** A Class 9 hazardous material that can qualify as a mailable air-eligible consumer commodity material (ID8000) when intended for air transportation, or limited quantity surface material when intended for surface transportation, is permitted in domestic mail, subject to the applicable 49 CFR requirements. Only certain materials within Classes 2, 3, 6.1, and 9 are eligible for air transportation; mailpieces containing permissible quantities of these materials must be marked with the proper shipping name (“Consumer Commodity”). Additionally, lithium batteries, dry ice, and magnetized materials are permitted in air and surface transportation as specified limits provided in Exhibit 349.244, 349.32, and 349.42.

349.2 Lithium Batteries

Lithium batteries fall into the following classifications:

a. **Lithium-Ion Cell or Battery:** A rechargeable electrochemical cell or battery in which the positive and negative electrodes are both lithium compounds constructed with no metallic lithium in either electrode. These batteries are also referred to as secondary or rechargeable lithium cells or batteries which are typically used in cell phones and laptop computers.

b. **Lithium-Ion Polymer Cell or Battery:** A rechargeable cell or battery that uses lithium-ion chemistries, regulated as a lithium-ion cell or battery.

c. **Lithium Metal Cell or Battery:** A non-rechargeable electrochemical cell or battery utilizing lithium metal or lithium alloys as the anode. The

lithium content is measured in an undischarged state. The lithium content of a lithium metal or lithium alloy battery is the sum of the grams of lithium content contained in the component cells of the battery. These batteries are also referred to as primary or non-rechargeable lithium cells or batteries, and are often used in consumer products such as cameras and flashlights.

d. **Button Cell Battery:** A small, single-cell round battery with a diameter greater than its height, typically used in devices such as watches, calculators, and hearing aids, and are often installed in electronic devices as auxiliary power sources. Mailable button cell batteries must contain no more than 0.3 grams of lithium for lithium metal types and must not exceed 2.7 watt-hours for lithium-ion types.

e. **Lithium cell:** A single encased electrochemical unit with one positive electrode (anode) and one negative electrode (cathode), which exhibits a voltage differential across its terminals. For mailability, marking, and documentation requirements, a single cell lithium battery is classified as a lithium cell.

f. **Lithium battery:** A unit composed of one or more lithium cells which are electrically connected together by a permanent means, including case, terminals, and markings.

349.21 Definition

The following definitions apply specifically to the handling, classification, and mailing requirements of lithium batteries and related equipment:

a. **Equipment:** The device or apparatus for which the lithium cells or batteries will provide power for its operation.

b. **Lithium Battery Consignment:** One or more mailpieces containing lithium batteries, entered into Postal Service networks by one mailer or mail service provider within a single mailing or retail transaction, or included in the same manifest or shipping services file, and intended for delivery to a single consignee at a single destination address.

c. **Short Circuit:** A direct connection between positive and negative terminals of a cell or battery that provides an abnormally low resistance path for current flow.

d. **Watt-Hour (Wh):** The energy rating of a lithium-ion cell or battery. Watt-hour (Wh) is a unit of energy equivalent to one watt (1 W) of work acting for one hour (1 h) of time. The watt-hour calculation is determined by multiplying the rated capacity of a cell or battery in the ampere-hours (Ah) by its nominal voltage (V) (i.e., Wh = Ah x V).

e. **Used, Damaged, or Defective Electronic Device:** An electronic device containing or packaged with one or more lithium cells or batteries that:

(1) Is not new in original packaging;

(2) Is not manufacturer-certified new or refurbished; and/or

(3) Has some form of damage or defect.

349.22 Lithium Batteries - Domestic

Small lithium cells and batteries are mailable domestically under the conditions in this subchapter.

349.221 General

The following applies to all mailable lithium batteries:

a. **Battery Testing Standards:** Each cell or battery must meet UN Manual of Tests and Criteria, Part III, 38.3, as referenced in DOT's hazardous materials regulation (49 CFR § 171.7).

b. **Addressing:** All outer packaging must include complete delivery and return addresses.

c. **Outer Packaging:** Mailpieces containing lithium batteries must be packaged in rigid outer packaging unless excepted under 339.4.

d. **Marking Requirements:** DOT-approved lithium battery marks, as specified in Exhibit 325.4(a), must be applied flat (i.e., without the mark being folded) on the address side of the mailpiece and in such a manner that parts of the mark do not appear on different sides of the mailpiece.

Note: Mailpieces containing button-cell batteries installed in equipment (including circuit boards) or no more than four lithium cells or two lithium batteries installed in the equipment they operate are excepted.

e. **Marking for Used Devices:** Used, damaged, or defective electronic devices (refer to 349.21(e)), must be marked with "Restricted Electronic Device" and "Surface Transportation Only" on the address side of the mailpiece.

f. **Short Circuit Protection:** Batteries installed in equipment must be protected from damage and short circuit.

g. **Activation Prevention:** Equipment containing lithium batteries must have effective means of preventing it from being inadvertently turned on or activated.

h. **Cushioning and Separation:** Cells, batteries, or equipment containing cells or batteries, must be individually cushioned, creating separation to prevent movement or damage.

i. **Consignment:** Packages in consignments of more than two items require DOT-approved lithium battery markings as defined in 349.6(b).

349.23 Lithium Metal (Non-rechargeable) Cells and Batteries - Domestic

Small consumer-type lithium metal cells or batteries (also called primary lithium cells or batteries), such as those used to power cameras or flashlights, are mailable domestically under the following conditions. Refer to 622 or IMM 136 when mailing batteries internationally, to APO/FPO/DPO, or U.S. Possessions, Territories, and Freely Associated States (PTFAS) destinations (refer to 612).

349.231 General Requirements

Mailability of lithium metal (or lithium alloy) cells and batteries is based upon the following:

a. **Lithium Content per Cell:** Each cell must not exceed more than 1.0 gram of lithium.

b. **Lithium Content per Battery:** Each battery must not exceed more than 2.0 grams of lithium content.

c. **UN Numbers:** The DOT lithium battery mark (refer to Exhibit 325.4(a)) must indicate UN3090 for standalone cells or batteries and UN3091 when they are contained in or packed with equipment they are intended to operate.

349.232 **Installed in Equipment**

The following additional restrictions apply to the mailing of lithium metal cells or batteries properly installed in the equipment they operate:

a. **Weight Limits (≤ 0.3 g):** For cells and batteries containing up to 0.3 grams of lithium, no mailpiece may exceed 2.5 kilograms (5.5 pounds). There is no maximum number of cells or batteries per mailpiece.

b. **Weight Limits (≥ 0.3 g):** For cells containing more than 0.3 grams (but not exceeding 1.0 gram), and batteries containing more than 0.3 grams (but not exceeding 2.0 grams) of lithium, no mailpiece may exceed 5 kilograms (11 pounds). Each mailpiece may contain a maximum of eight cells or two batteries.

c. **Marking:** When required or optionally applied, mailpieces must display a DOT-approved lithium battery marking (refer to Exhibit 325.4(a)), indicating UN3091, on the address side.

349.233 **Mailed With Equipment**

The following additional restrictions apply to the mailing of lithium metal cells or batteries shipped with (but not installed in) the device or equipment being mailed:

a. **Battery Limit:** The package cannot exceed the quantity of batteries required to operate the device.

b. **Weight Limits (≤ 0.3 g):** For cells and batteries containing up to 0.3 grams of lithium, no mailpiece may exceed 2.5 kilograms (5.5 pounds). There is no maximum number of cells or batteries per mailpiece.

c. **Weight Limits (≥ 0.3 g):** For cells containing more than 0.3 grams (but not exceeding 1.0 gram), and batteries containing more than 0.3 grams (but not exceeding 2.0 grams) of lithium, no mailpiece may exceed 5 kilograms (11 pounds). Each mailpiece may contain a maximum of eight cells or two batteries.

d. **Marking:** Mailpieces must display a DOT-approved lithium battery mark (refer to Exhibit 325.4(a)), indicating UN3091, on the address side.

349.234 **Mailed Without Equipment**

The following additional restrictions apply to the mailing of lithium metal cells or batteries without equipment (i.e., individual batteries):

a. **Original Packaging:** Lithium metal cells and batteries must be mailed in the sealed packaging.

b. **Transportation:** Mailpieces must be sent by surface transportation only. Refer to 327.13.

c. **Marking:** Mailpieces must display:

(1) A DOT-approved lithium battery mark (refer to Exhibit 325.4(a)), indicating UN3090, on the address side, and;

(2) The text "Surface Mail Only, Primary Lithium Batteries - Forbidden for Transportation Aboard Passenger Aircraft" or "Surface Mail Only, Lithium Metal Batteries - Forbidden for Transportation Aboard Passenger Aircraft."

d. **Weight Limit:** The mailpiece must not exceed 5 pounds.

349.24 Lithium-ion (Rechargeable) Cells and Batteries - Domestic

Small consumer-type lithium-ion cells and batteries (also called secondary lithium cells or batteries), such as those used to power cell phones and laptop computers, are only mailable domestically under the following conditions. Refer to 622 or IMM 136 when mailing batteries internationally, to APO/FPO/DPO destinations, or U.S. Possessions, Territories, and Freely Associated States (PTFAS) destinations (refer to 612).

349.241 General Requirements

The following additional restrictions apply to the mailability of all secondary lithium-ion or lithium polymer cells and batteries:

a. **Watt-Hour Rating per Cell:** Cells must not exceed a 20 Wh rating.

b. **Watt-Hour Rating per Battery:** Batteries must not exceed a 100 Wh rating.

c. **Watt-Hour Marking:** Each battery must display the "Watt-hour" or "Wh" marking to verify it is within the limits defined in items a and b.

d. **UN Numbers:** The DOT lithium battery mark (refer to Exhibit 325.4(a)) must indicate UN3480 for standalone cells or batteries and UN3481 when they are contained in or packed with equipment they are intended to operate.

349.242 Installed in Equipment

The following additional restrictions apply to the mailing of lithium-ion cells andor batteries properly installed in equipment they operate:

a. **Limits:**

(1) ≤ **2.7 Wh:** For lithium-ion cells and batteries with a watt-hour rating up to 2.7 Wh, no mailpiece may exceed 2.5 kilograms (5.5 pounds). There is no maximum number of cells or batteries per mailpiece.

(2) ≤ **20 Wh Cells or 100 Wh Batteries):** Each lithium-ion cell must not exceed a watt-hour rating of 20 Wh, and batteries must not exceed a watt-hour rating of 100 Wh. Each mailpiece must contain no more than eight cells or two batteries.

b. **Lithium Battery Marking:** When required or optionally applied, mailpieces must display a DOT-approved lithium battery mark (refer to Exhibit 325.4(a)), indicating UN3481, on the address side.

349.243 Mailed With Equipment

The following additional restrictions apply to the mailing of lithium-ion cells or batteries shipped with (but not installed in) the device or equipment being mailed:

a. **Weight Limits (≤ 2.7 Wh):** For lithium-ion cells and batteries with a watt-hour rating of up to 2.7 Wh, no mailpiece may exceed 2.5 kilograms (5.5 pounds). There is no maximum number of cells or batteries per mailpiece.

b. **Weight Limits (≤ 20 Wh Cells or 100 Wh Batteries):** For lithium-ion cells with a watt-hour rating of up to 20 Wh, and batteries with a watt-hour rating of up to 100 Wh, each mailpiece must contain no more than eight cells or two batteries. Each cell must have a watt-hour rating of no more than 20 Wh, and each battery must have a watt-hour of no more than 100 Wh.

c. **Marking:** Mailpieces must display a DOT-approved lithium battery mark (refer to Exhibit 325.4(a)), indicating UN3481, on the address side.

349.244 **Mailed Without Equipment**

The following additional restrictions apply to the mailing of lithium-ion cells or batteries without equipment (i.e., individual batteries):

a. **Original Packaging:** Lithium-ion cells and batteries must be in their sealed packaging.

b. **Weight Limit:** The mailpiece must not exceed 5 pounds.

c. **Marking:** Mailpieces must display:

(1) A U.S. Department of Transportation (DOT)-approved lithium-battery mark (see Exhibit 325.4(a)), specifying "UN3480" on the address side.

(2) The text "Surface Mail Only, Secondary Lithium Batteries - Forbidden for Transportation Aboard Passenger Aircraft" or "Surface Mail Only, Lithium-ion Batteries - Forbidden for Transportation Aboard Passenger Aircraft."

d. **Transportation:** Mailpieces must be sent by surface transportation only, unless both mailed from, and intended for delivery to, the state of Alaska under 349.244(e).

e. **Intra-Alaska:** Lithium-ion or Lithium Polymer batteries may be mailed via air transportation only when both mailed from, and intended for delivery within, the state of Alaska. Each mailpiece must not contain more than eight cells or two batteries

Exhibit 349.244
Domestic Lithium Battery Mailability

	Surface Transportation	Air Transportation[1]	Mailpiece Limitations[2]
Lithium Metal or Lithium Alloy Batteries [3, 4] *Small, non-rechargeable, consumer-type batteries*			
Contained in (properly installed in equipment)	Mailable	Mailable	8 cells or 2 batteries 11 lbs.
Packed with equipment, but not installed in the equipment	Mailable	Mailable	8 cells or 2 batteries 11 lbs.
Without the equipment they operate (individual batteries in originally sealed packaging)	Mailable	Prohibited	5 lbs.

	Surface Transportation	Air Transportation[1]	Mailpiece Limitations[2]
Lithium-ion or Lithium Polymer Batteries[5, 6]			
Small, rechargeable, consumer-type batteries			
Contained in (properly installed in equipment)	Mailable	Mailable	8 cells or 2 batteries
Packed with equipment, but not installed in the equipment	Mailable	Mailable	8 cells or 2 batteries
Without the equipment they operate (individual batteries in originally sealed packaging)	Mailable	Prohibited[7]	5 lbs.
Very Small Lithium Metal or Lithium-ion Batteries[8, 9]			
Exception for very small consumer-type batteries in USPS air transportation			
Contained in (properly installed in equipment)	Mailable	Mailable	No limit on cells/ batteries 5.5 pounds
Packed with equipment, but not installed in the equipment	Mailable	Mailable	No limit on cells/ batteries 5.5 pounds
Damaged, Defective, or Recalled Batteries	Prohibited, unless approved by the director, Product Classification.		

1. *Used, damaged, or defective electronic devices are prohibited from air transportation. This excludes devices that are new in original packaging, and manufacturer-certified new or refurbished devices.*
2. *When a mailpiece limitation of 8 cells or 2 batteries is applicable, a mailpiece may contain either 8 cells or 2 batteries, not both.*
3. *Each cell must not contain more than 1 g (gram) of lithium content.*
4. *Each battery must not contain more than 2 g aggregate lithium content.*
5. *Each cell must not exceed more than 20 Wh (watt-hour rating).*
6. *Each battery must not exceed 100 Wh.*
7. *Mailable intra-Alaska via air transportation is limited to 8 cells or 2 batteries.*
8. *Each lithium metal or lithium alloy cell or battery must not exceed 0.3 g of lithium content.*
9. *Each lithium-ion or lithium polymer cell or battery must not exceed 2.7 Wh.*

349.3 Dry Ice

Dry ice is primarily used to keep other items cool, including both mailable hazardous materials or nonhazardous items, such as medical specimens or foods.

349.31 Definition

Dry ice (carbon dioxide solid) is produced by expanding liquid carbon dioxide to vapor and compacting the material into blocks. As dry ice converts to gas, it absorbs heat from its surroundings. This resulting gas is denser than air and may displace oxygen in confined spaces, creating a risk of suffocation. When dry ice is enclosed in a thick metal or other restrictive type of container, internal pressure builds up and could cause the container to rupture or explode. Mailpieces containing dry ice must be handled with care because of its extremely low temperature (about -110° or -79° C) may cause severe burns to skin upon direct contact.

349.32 Mailability

Packages containing dry ice must be vented to allow the release of carbon dioxide gas and to comply with 49 CFR § 173.217 and 175.10(a)(10).

Mailpieces containing dry ice are subject to the following conditions, as applicable:

a. **International Mail:** Dry ice is prohibited.

b. **Domestic Mail via Air Transportation:** Dry ice is permitted in quantities of up to 5 pounds per mailpiece. Mailpieces must comply with *Packaging Instruction 9A* in Appendix C, as applicable.

c. **Domestic Mail via Surface Transportation:** Dry ice is permitted and must comply with *Packaging Instruction 9A* in Appendix C.

Note: Mailpieces prepared for surface transportation must not, under any circumstances, be routed via air transportation.

349.4 Magnetized Materials

A magnetized material is not regulated as hazardous material unless transported by air, and when it has a magnetic field strength capable of causing the deviation of aircraft instruments. Examples include magnets and magnetized devices such as magnetrons and light meters of sufficient strength to possibly cause erroneous aircraft compass readings.

349.41 Definition

A magnetized material is regulated as a hazardous material when it is presented for air transportation and exhibits a measurable magnetic field strength exceeding 0.00525 gauss at a distance of 15 feet from any point on the surface of the outer packaging of the magnetized material. If the maximum magnetic field strength at a distance of 7 feet is under 0.002 gauss or the compass deviation is less than 0.5 degrees, the material is not classified as a magnetized material.

349.42 Mailability

Magnetized materials with a magnetic field strength of 0.002 gauss or more at a distance of 7 feet from any point on the surface of the outer packaging are mailable via air transportation if properly packaged.

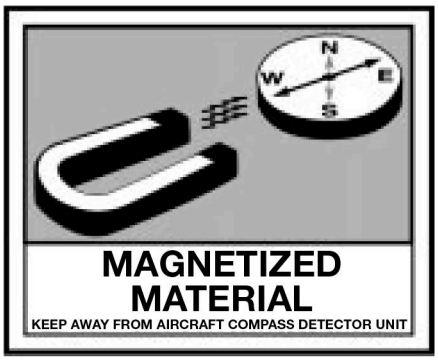
Materials with a field strength over 0.00525 gauss at 15 feet are nonmailable in domestic and international air transportation under any circumstances. The following conditions apply for mailing magnetized materials:

a. **International Mail:** Only non-regulated magnetized materials with a magnetic field strength below 0.002 gauss at a distance of 7 feet may be mailed internationally. Regulated magnetized materials are prohibited (refer to 621.1, 622.4, or IMM 136.1).

b. **Domestic Mail via Air Transportation:** Magnetized materials with a magnetic field strength over 0.00525 gauss at 15 feet are prohibited. Those below 0.002 gauss at a distance of 7 feet are not regulated. *Packaging Instruction 9B* in Appendix C must be followed. The address side of the outer packaging must display the magnetized material warning label shown in Exhibit 349.420 and a shipping paper is required.

c. **Domestic Mail via Surface Transportation:** Magnetized materials are not regulated as hazardous when transported via surface transportation.

Exhibit 349.420
Warning Label for Magnetized Materials



349.5 Marking, Packaging, and Documentation

The following Class 9 materials are mailable subject to the corresponding packaging:

a. **Dry Ice:** *Packaging Instruction 9A*.

b. **Magnetized Materials:** *Packaging Instruction 9B*.

c. **Air-Eligible Consumer Commodity Material (ID8000) (Air Transportation):** *Packaging Instruction 9C*. Packages containing Miscellaneous Class 9 materials must display the DOT diamond-shaped Limited Quantity Mark with the symbol "Y" in the center. Refer to Exhibit 325.5. Each mailpiece intended for transport by air and containing eligible limited quantity material of DOT Classes 2, 3, and 6.1, or eligible hazard Class 9 Limited Quantity material categorized in UN3077, UN3082, UN3175, UN3334, or UN3335, must be marked with:

(1) **Proper Shipping Name:** "Consumer Commodity".

(2) **Identification Number:** "ID8000."

(3) **DOT Label:** Class 9 Hazardous Material Warning Label (refer to Exhibit 325.4(b)).

(4) **Shipper's Declaration for Dangerous Goods:** Completed, prepared in triplicate, and affixed to the outside of the mailpiece.

d. **Limited Quantity Surface Material (Surface Transportation):** *Packaging Instruction 9C*. Each mailpiece must be marked according to the surface requirements within the applicable *Packaging Instructions* in Appendix C. The Limited Quantity ground marking is sufficient for surface shipments; neither the proper shipping name nor the identification number is required.

e. **Lithium and Lithium-Ion Cells and Batteries (Domestic):** *Packaging Instruction 9D*.

f. **Lithium and Lithium-Ion Cells and Batteries (International):** *Packaging Instruction 9E*.

Packages containing mailable Class 9 material markings must be durable, legible, and readily visible and applied the address of the packaging. Refer to 325.

349.6 Nonmailable Class 9 Materials

The following Class 9 materials are prohibited:

a. **Non-Qualifying Class 9 Materials:** Class 9 materials that do not qualify as Limited Quantity air or Limited Quantity surface material, except for lithium batteries, dry ice, and magnetized materials.

b. **High-Strength Magnetized Materials:** Magnetized materials with a magnetic field strength exceeding 0.00525 gauss at a distance of 15 feet.

c. **Compass-Deviating Magnetized Materials:** Magnetized materials causing a compass deviation at a distance of 7 feet or more are prohibited from air transport.

d. **Excessive Dry Ice:** Dry ice exceeding 5 pounds per mailpiece is prohibited from air transport in domestic mail.

e. **Unqualified Lithium Batteries (International Mail):** Lithium batteries in international mail, unless they are within the specified limits and installed in the equipment they operate.

f. **Unqualified Lithium Batteries (Domestic Air Transport):** Lithium batteries in domestic air transportation, unless they are within the specified limits and are installed in, or packed with, the equipment they are intended to operate.

g. **Damaged, Defective, or Recalled Batteries:** Damaged, defective, or recalled batteries unless approved by the director, Product Classification (Refer to 214 for contact information).

h. **Used, Damaged, or Defective Electronic Devices:** Used, damaged, or defective electronic devices in international mail or domestic air transportation, except for new devices in original packaging or manufacturer-certified new or refurbished devices.

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4 Restricted Matter

41 General

411 Definition

Restricted matter is a designation of items that fall within one of three categories: mailable, mailable with restrictions, or prohibited. Restricted matter includes items on which mailing restrictions have been imposed, generally, by federal law. Examples include motor vehicle master keys and intoxicating liquors. Any advertising, promotional, or sales matter that solicits or induces the mailing of any nonmailable article within this publication is prohibited. Refer to the *Domestic Mail Manual* (DMM) 601.9.4.1.

412 Mailer Responsibility

The mailer is responsible for ensuring that all Postal Service requirements, as well as any applicable federal and state laws and local ordinances applicable to the shipment of restricted matter, have been met.

413 Rulings

Where doubt exists about mailability of any article that is considered to be restricted matter, a request for a ruling may be made to the local postmaster (refer to 215).

When mailability of an article mentioned within this chapter is in question, a postmaster may require the mailer or addressee, as applicable, to furnish a written explanation. The written explanation must include the article mailability and addressee's eligibility. If uncertainty remains or the explanation is deemed unsatisfactory, the postmaster may forward the explanation along with a statement of the facts, to the Pricing and Classification Service Center (PCSC) for a ruling (refer to 213 for contact information).

414 Nonmailable Matter Found in the Mail

All nonmailable articles of restricted matter discovered in the mailstream must immediately be reported in accordance with the provisions in the *Postal Operations Manual* (POM) 139.117 or 139.118, as appropriate.

42 Intoxicating Liquors

421 Definition

Intoxicating liquors are beverages with an alcohol content of 0.5 percent or more by weight and are taxable per Chapter 51 of the United States (U.S.) Internal Revenue Service (IRS) Code.

422 Mailability

422.1 Denatured Flammable or Combustible Liquor

There are no Postal Service requirements to denature the contents (i.e., to change the nature or natural qualities) of intoxicating liquor. However, if denaturing agents are used, such as sodium bisulfate (a corrosive) or mercuric chloride (a poison), the substances must meet the mailability requirements for Class 8 corrosive material or a Division 6.1 toxic substance, as appropriate (refer to Chapter 6). For flammable or combustible contents, the materials must meet the requirements for a Class 3 flammable or combustible liquid.

422.2 Mailable Liquors

422.21 Products Not Categorized as Intoxicating Liquors

A product containing intoxicating liquor is determined to be mailable if it:

a. Complies with applicable IRS and U.S. Food and Drug Administration (FDA), regulations.

b. Is not classified as a taxable alcoholic beverage.

c. Is not poisonous.

d. Is not flammable.

Examples of these mailable products include cold remedies, cooking wine, and mouthwash.

422.22 Exempt Mailings Between Federal and State Agencies

Intoxicating liquor is exempt from the prohibition and may be mailed between federal or state agency employees for official use (e.g., for testing purposes). This exemption aims to prevent liquor from being transported to restricted jurisdictions for consumption and to ensure that all proper tax revenues are paid.

423 Packaging and Marking

423.1 General

All exempt intoxicating liquors (refer to 422.22) must be sent via Registered Mail service and must meet the packaging requirements for liquids in DMM 601.3.4.

424 Nonmailable Intoxicating Liquors

Intoxicating liquors and taxable liquors, including those obtained under a prescription or as a collector's item, are nonmailable. The prohibition of the mailing of intoxicating liquors is contained in federal law under U.S. Code Title 18 Section 1716 (18 U.S.C. § 1716).

424.1 Promotional Materials

Advertising, promotional, or sales materials that encourage or solicit the mailing of intoxicating liquors are nonmailable. Refer to DMM 601.9.4.1.

43 Firearms

431 Definitions

431.1 Firearms

The following definitions apply:

a. **Firearm:** Any device, including a starter gun, which will, or is designed to, or may readily be converted to, expel a projectile by the action of an explosive; the frame or receiver of any such weapon; any firearm muffler or firearm silencer; or any destructive device; but the term shall not include antique firearms (except antique firearms meeting the description of a handgun or of a firearm capable of being concealed on a person).

b. **Firearm Frame or Receiver:** The part of a firearm which provides housing for the hammer, bolt or breechblock, and firing mechanism, and which is usually threaded at its forward portion to receive the barrel. Frames and receivers usually include the firearm serial number and are typically considered to be the regulated component of a firearm.

431.2 Handguns

Pistols, revolvers, and other firearms capable of being concealed on a person, including but not limited to, short-barreled shotguns and short-barreled rifles, are categorized as handguns. Specific definitions include:

a. **Handgun (Including Pistols and Revolvers):** A firearm with a short stock designed to be held and fired by the use of a single hand and subject to 431.1, or a combination of parts from which a handgun can be assembled.

b. **Short-barreled Shotgun or Rifle:** A shotgun with one or more barrels less than 18 inches long or a rifle with one or more barrels less than 16 inches long. These definitions include any weapon made from a shotgun or rifle, whether by alteration, modification, or otherwise, if such a weapon as modified has an overall length of less than 26 inches. A short-barreled shotgun or rifle of greater dimension may be regarded as nonmailable when it has characteristics to allow concealment on the person.

431.3 Antique Firearm

Antique firearm are defined as muzzle loading rifles, shotguns, or pistols designed to use black powder or a black powder substitutes and which cannot use fixed ammunition, except those that:

a. Incorporate a firearm frame or receiver,

b. Are converted into a muzzle loading weapon, or

c. Are a muzzle loading weapon which can be readily converted to fire fixed ammunition by replacing the barrel, bolt, breechblock, or any combination thereof.

Antique firearms also include any firearm with a matchlock, flintlock, percussion cap, or similar type of ignition system manufactured on or before 1898, or any replica thereof, if such replica:

a. Is not designed or redesigned for using rimfire or conventional centerfire fixed ammunition.

b. Uses rimfire or conventional centerfire fixed ammunition that is no longer manufactured in the U.S. and is not readily available in the ordinary channels of commercial trade.

431.4 Rifles and Shotguns

A rifle is a shoulder weapon having a barrel that is 16 inches or more in length. A shotgun is a shoulder weapon having a barrel that is 18 inches or more in length. Rifles and shotguns have an overall length of 26 inches or greater and cannot be concealed on a person.

431.5 Curios or Relics

Firearms which are of special interest to collectors by reason of some quality other than is associated with firearms intended for sporting use or as offensive or defensive weapons. To be recognized as curios or relics, firearms must fall within one of the following categories:

a. Firearms which were manufactured at least 50 years prior to the current date, but not including replicas thereof;

b. Firearms which are certified by the curator of a municipal, state, or federal museum which exhibits firearms to be curios or relics of museum interest; and

c. Any other firearms which derive a substantial part of their monetary value from the fact that they are novel, rare, bizarre, or because of their association with some historical figure, period, or event. Proof of qualification of a particular firearm under this category may be established by evidence of present value and evidence that like firearms are not available except as collector's items, or that the value of like firearms available in ordinary commercial channels is substantially less.

431.6 Federal Firearms License

Federal Firearms Licenses (FFLs) are issued by the U.S. Department of Justice, Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF), under

the Gun Control Act of 1968, and are defined under the Code of Federal Regulations Title 27 Part 478 (27 CFR Part 478), as follows:

a. **Manufacturer, Dealer, or Importer:** Any entity or individual engaged in the business of selling firearms at wholesale or retail, repair (gunsmith), pawnbroker, manufacturer, or importing of firearms into the United States.

b. **Curio and Relic Collector:** Any entity or individual who sells, trades, transfers, acquires, holds or disposes of firearms as curios or relics.

431.7 Air Guns

Air guns are devices that expel projectiles using compressed air or other gas (including paintball and pellet guns). Air guns are not regulated as firearms unless they are manufactured with frames or receivers of an actual firearm.

Note: When compressed air is included in packages, shipments must adhere to the hazardous materials requirements within 342.

432 Mailability

432.1 General

Mailers must comply with the Gun Control Act of 1968, all provisions of postal law in 18 U.S.C. § 1715, and all other federal and state regulations and local ordinances affecting the movement of firearms. The following also applies:

a. The Postal Service may require the mailer to open packages containing firearms or air guns or give written certification that the weapon is unloaded and not concealable.

b. Short-barreled rifles or shotguns that can be concealed on the person are nonmailable.

c. No markings of any kind that indicate the nature of the contents may be placed on the outside wrapper or container of any mailpiece containing mailable firearms.

d. Mailable matter must be properly and securely packaged within the general packaging requirements in DMM 601.1-7.

e. All regulated firearms must be mailed using a USPS product or Extra Service that provides tracking and signature capture at delivery, unless shipped between licensed dealers, manufacturers, or importers.

432.2 Handguns

Handguns, and other firearms capable of being concealed on the person, are nonmailable unless mailed between the parties listed in 432, after the filing of an affidavit or statement described in 432.22 or 432.24, and are subject to the following:

a. **Curio and Relic Handguns**

(1) Firearms meeting the definition of a handgun under 431.2 and the definition of curios or relics under 431.5 may be mailed between licensed curio and relic collectors only when those firearms also meet the definition of an antique firearm under 431.3.

(2) Firearms meeting the definition of a handgun under 431.2, which are certified by a curator of a municipal, state, or federal museum that exhibits firearms to be curios or relics of museum interest, may be accepted for mailing between governmental museums without regard to the restrictions provided for handguns in 432.21 through 432.24 and Exhibit 432.25.

b. **Air Guns:** Mailable air guns (refer to 431.7) that do not fall within the definition of firearms under 431.1 and are capable of being concealed on a person are mailable, but must include *Adult Signature* service per DMM 503.8. Mailers must comply with all applicable state and local regulations.

c. **Handgun Parts:** Parts of handguns are mailable, except for handgun frames, receivers, or components regulated under 18 U.S.C. Chapter 44.

d. **Additional Restrictions:** Mailers are subject to applicable restrictions by governments of a state, territory, or district.

432.21 Authorized Persons

Subject to 432.22, handguns may be mailed by licensed firearm manufacturers, dealers, importers, or authorized agents of federal, state, territory, or district governments, *only* upon filing the required affidavit or certificate and when addressed to a person in one of the following categories for use in the person's official duties:

a. **Military Officers:** Officers of the Army, Coast Guard, Air Force, Navy, Marine Corps, or Organized Reserve Corps.

b. **National Guard Officers:** Officers of the National Guard or militia of a state, territory, or district.

c. **Law Enforcement Officers:** Officers of the United States or of a state, territory, or district, whose official duty is to serve warrants of arrest or commitment.

d. **Authorized Postal Service Employees:** Postal Service employees authorized by the Chief Postal Inspector.

e. **Federal Enforcement Officers:** Officers and employees of enforcement agencies of the United States.

f. **Federal and State Watchmen:** Watchmen engaged in guarding the property of the United States, a state, territory, or district.

g. **Purchasing Agents:** Designated member of agencies employing officers and employees as outlined in 432.21(c-f).

432.22 Affidavit of Addressee

Authorized mailers must submit, at the time of mailing, an affidavit signed by the addressee certifying that the addressee is qualified to receive the firearm under a particular category of 432.21(a-g), and that the firearm is intended for

the addressee's official use. The affidavit must also bear a certificate stating that the firearm is for the official duty use of the addressee, signed by the appropriate official, as follows:

a. For officers of Armed Forces, by the commanding officer.

b. For officers and employees of enforcement agencies, by the head of the agency employing the addressee to perform the official duty with which the firearm is to be used.

c. For watchmen, by the chief clerk of the department, bureau, or independent branch of the government of the United States, the state, the territory, or the district by which the watchman is employed.

d. For the purchasing agent or other designated member of enforcement agencies, by the head of such agency, that the firearm is to be used by an officer or employee included in 432.21(c-f).

432.23 Manufacturers, Dealers, and Importers

Handguns may be mailed between licensed firearm manufacturers, dealers, and importers in customary trade shipments, or for repairing or replacing parts.

432.24 Certificate of Manufacturers, Dealers, and Importers

Federal firearms licensee manufacturers, dealers, or importers are exempt from the affidavit requirement under 432.22 but must file a statement with the postmaster on PS Form 1508, Statement by Shipper of Firearms, signed by the mailer to confirm that:

a. They are a licensed firearm manufacturer, dealer, or importer; and

b. The package containing handguns, or parts and components of handguns under 432.2(c), are for customary trade shipments or contain such articles for repairing or replacing parts.

The statement must verify, to the best of the mailer's knowledge, the addressees are licensed firearm manufacturers, dealers, or importers. Registered Mail service is recommended.

Postmasters may forward unsatisfactory mailer statements to the PCSC for a ruling.

432.25 Federal and Other Law Enforcement Agencies

Handguns may be mailed without restrictions under 432.21 through 432.24 in the following cases:

a. **Scientific and Crime Detection Bureaus:** Mail addressed to a scientific laboratory or crime detection bureau of federal, state, or local law enforcement agencies with authority to serve warrants of arrest or commitment.

b. **Official Federal Shipments:** Mail sent by an authorized federal government agent as official shipments to any qualified addressee in 432.21, licensed firearm manufacturers, dealers, or importers, or federal agencies.

Exhibit 432.25
Mailability Requirements for Handguns

Addressee	Affidavit or Certificate Requirements
Officer of Air Force, Army, Coast Guard, Marine Corps, Navy, or Organized Reserve Corps.	Affidavit must be signed by the addressee and certificate must be signed by the commanding officer.
Officer of National Guard or militia of a state, territory, or district.	Affidavit must be signed by the addressee and certificate must be signed by the commanding officer.
Officer of the federal government or a state, district, or territory whose official duty is to serve warrants of arrest or commitment.*	Affidavit must be signed by the addressee and certificate must be signed by the head of the agency employing the addressee.
Postal Service employees specifically authorized by the Chief Postal Inspector.*	Affidavit must be signed by the addressee and certificate must be signed by the head of the agency employing the addressee.
Officer or employee of a U.S. enforcement agency.*	Affidavit must be signed by the addressee and certificate must be signed by the head of the agency employing the addressee.
Purchasing agent or other designated member of an enforcement agency employing officers and personnel included in (*) above.	Affidavit must be signed by the addressee and certificate must be signed by the head of agency stating the firearm is to be used by an officer or employee included in addressee column marked with an (*).
Watchman engaged in guarding federal, state, district, or territory property.	Affidavit must be signed by the addressee and certificate must be signed by the chief clerk of department, bureau, or independent branch of the government agency employing the addressee.
Licensed manufacturers, importers, and dealers of firearms.	Signed statement on PS Form 1508, *Statement by Shipper of Firearms.* The mailer must be a licensed manufacturer, importer, or dealer mailing to another licensed manufacturer, importer, or firearms dealer.

432.3 Rifles and Shotguns

Except under 431.2, unloaded rifles and shotguns are mailable. Mailers must comply with the rules and regulations per 27 CFR, Part 478, as well as state and local laws. The Postal Service may require confirmation, either by opening the package or through written certification, that the firearm is unloaded and eligible for mailing. The following conditions also apply:

a. **Intrastate Shipments:** Subject to state, territory, or district regulations, rifles and shotguns intended for delivery within the same state of mailing may be shipped within a state provided that:

(1) The mailpiece displays a "Return Service Requested" endorsement.

(2) The mailpiece is shipped using a class of mail, product, or Extra Service that provides tracking and signature capture at delivery.

b. **Shipments Between Licensed FFLs:** Mailing rifles and shotguns between licensed FFL dealers, manufacturers, or importers is unrestricted. The Postal Service recommends that these items be mailed using a class of mail, product, or Extra Service that provides tracking and signature capture at delivery.

c. **Out-of-State Mailings by Non-FFL Owners:** Non-FFL owners may mail rifles or shotguns to themselves in another state for lawful activities (e.g., hunting) under the following conditions. The mailpiece must:

(1) Be addressed to the owner.

(2) Include the "in the care of" endorsement immediately preceding the name of the applicable temporary custodian.

(3) Be opened by the rifle or shotgun owner.

(4) Be mailed using a class of mail, product, or Extra Service that provides tracking and signature capture at delivery.

d. **Mailing to FFL Dealers by Non-FFL Owners:** Non-FFL owners may mail rifles or shotguns domestically to FFL dealers, manufacturers, or importers in any state. These items must be mailed using a class of mail, product, or Extra Service that provides tracking and signature capture at delivery.

e. **Curio and Relic Collectors:** Except as described in 432.3(a), licensed curio and relic collectors may mail firearms meeting the definition of curios or relics per 27 CFR §178.11 domestically to licensed FFL curio and relic collectors in any state. These items must be mailed using a class of mail, product, or Extra Service that provides tracking and signature capture at delivery.

f. **Museum Shipments:** Firearms meeting the definition of a rifle or shotgun under 431.4, which are certified by the curator of a municipal, state, or federal museum that exhibits firearms to be curios or relics of museum interest, may be mailed between governmental museums without restriction.

g. **Air Guns:** Air guns (refer to 431.7) that do not fall within the definition of firearms under 431.1(a) are mailable. Shipments containing air guns with a muzzle velocity of 400 or more feet per second (fps) must include an Adult Signature service per DMM 503.8. Mailers are responsible for compliance with all applicable state and local regulations.

432.4 Indemnity Claims

Indemnity claims for regulated firearms may be filed if the following occurs during Postal Service handling (refer to DMM 609):

a. **Loss:** A claim may be paid when a firearm has been lost.

b. **Repair Costs Exceeds Value:** If a firearm is damaged, a claim may be filed if the estimated repair cost from a reputable dealer exceeds the declared or actual value of the firearm at the time of mailing.

433 Legal Opinions on Mailing Firearms

Postmasters are not authorized to give opinions on the legality of any shipment of firearms. Mailers requesting additional information should be referred to the ATF. Further advice and ATF contact information are available at *https://www.atf.gov/contact*.

434 Replica or Inert Explosive Devices

Replica or inert explosive devices that are not dangerous but resemble explosive devices (i.e., simulated grenades) are mailable provided all following conditions are met:

a. The package is presented by the mailer at a retail counter.

b. *Registered Mail* service is used.

c. The address side of the package is labeled with "REPLICA EXPLOSIVE" using letters at least 1/4-inch high.

435 Nonmailable Firearms Found in the Mail

Nonmailable firearms discovered in the mailstream must be immediately reported to the United States Postal Inspection Service in accordance with POM 139.117.

44 Knives and Sharp Instruments

441 Definitions

441.1 General

Sharp instruments include all sharp-pointed or sharp-edged implements, such as knives, tools, ice picks, razor blades, stilettos, or similar devices.

441.2 Switchblade Knife

A switchblade knife features a blade that opens automatically by hand pressure applied to a button or other device on the handle, or through inertia, gravity, or both.

442 Mailability

A switchblade knife, as defined in 441.2, is mailable only to the following categories of addressees:

a. **Government Supply or Procurement Officials:** Designated officers or employees ordering, procuring, or purchasing switchblade knives in connection with the activities of their respective governments or organizations, such as:

(1) Federal employees, civilian, or armed forces supply or procurement officers.

(2) Supply or procurement officers of the National Guard, Air National Guard, or militia of a state, territory, or the District of Columbia (D.C.).

(3) Supply or procurement officers or employees of municipal government in D.C., or of the government of any state, territory, county, city, or other political subdivision of a state or territory.

Note: Postal Service employees may require that the mailer verify the recipient belongs to one of the above categories before accepting any mailpiece containing an article or articles described in 441.2.

b. **Manufacturers or Dealers:** Authorized manufacturers or bona fide dealers may mail switchblade knives to addresses within one of the categories listed above in connection with official procurement or resale.

When uncertain about the mailability of a sharp instrument or a switchblade knife, a ruling may be requested from the local postmaster (refer to 215).

443 Packaging and Marking

443.1 General

All sharp-pointed or sharp-edged instruments (e.g., knives, tools, ice picks, razor blades) that are otherwise mailable must be securely packaged in a strong container. An inner and outer packaging container is recommended. Sufficient cushioning material must be used to protect the sharp points and edges from cutting through the outer packaging during normal Postal Service handling.

443.2 Marking

No marking of any kind that indicates the nature of the contents may be placed on the outside of any mailpiece containing a switchblade knife.

444 Nonmailable Knives in the Mail

Nonmailable knives or sharp instruments discovered in the mailstream must be reported to the Inspection Service in accordance with POM 139.117.

45 Other Restricted Materials

451 Liquids, Powders, and Odor-Producing Materials

451.1 Definitions

The following definitions apply:

a. **Liquid:** Any substance that flows readily and assumes the form of its container while retaining an independent volume. For the purposes of mailability, a liquid or any other nonhazardous substance (except a gas) that may liquify under existing conditions.

b. **Powders:** Dry materials that could cause damage, discomfort, destruction, or soiling upon escape (leakages).

c. **Odor-Producing Materials:** Any matter that is a source of an obnoxious odor.

451.2 Mailability

The following conditions apply for mailing liquids, powders, and odor-producing materials:

a. Liquids that are nonhazardous (i.e., not regulated as hazardous materials) are mailable provided they are properly packaged as specified in 451.3.

b. Powders must be packed in sift-proof containers or other containers that are sealed in durable sift-proof outer containers.

c. Any matter that is a source of an obnoxious odor is nonmailable.

451.21 Restrictions

Liquids and powders that are corrosive, explosive, flammable, toxic, or otherwise hazardous are subject to the mailing conditions for hazardous materials in Chapter 3, as applicable.

451.22 Cremated Remains

The following applies when mailing cremated human or animal remains (ashes):

a. **Domestic Mail:**

(1) **Service Required:** Cremated remains may only be mailed domestically when sent via *Priority Mail Express* service, utilizing USPS-produced cremated remains packaging (BOX-CRE). These remains must be packaged according to 451.3(b) and *Packaging Instruction 10C* in Appendix C must be followed.

(2) **Shipping Labels:** Shipping labels may be printed and affixed at a Post Office location, or single-ply *Priority Mail Express* labels can be generated through Click-N-Ship or other Postal Service-approved methods. Mailer-generated labels must display an *Intelligent Mail* package barcode (IMpb) with the correct cremated remains service type code and the proper *Extra Services* code in the Shipping Services File (refer to Publication 199 on PostalPro at *postalpro.usps.com*).

(3) **Extra Services:** Additional insurance and Return Receipt are the only extra services permitted for cremated remains.

b. **International Mail*:***

(1) **Service and Destination Verification:** Cremated remains (human or animal) may be sent internationally only through Priority Mail Express International service in USPS-produced cremated remains packaging (BOX-CRE) and when the destination country permits. Mailers must verify that the destination country accepts both Priority Mail Express International and cremated remains before mailing. Contents must be listed on the applicable customs declaration form. Additionally, packages must meet the requirements specified in 451.3(b), and *Packaging Instruction 10C* in Appendix C must be followed.

451.3 Packaging and Marking

The following conditions apply:

a. **Nonhazardous Liquids, Creams, and Pastes:** These items, particularly those in 1-gallon paint cans with friction-top closures (push-down tops), present a higher risk of causing damage to other mail and Postal Service equipment. Proper packaging is critical to maintaining the integrity of such mailpieces during handling. Mailers must mark the outer packaging of mailpieces containing liquid to indicate the contents and include

orientation arrows in accordance with 223. All liquids are subject to the general packaging requirements per DMM 601.3.4 and the following:

(1) **Friction-Top Closures:** Containers with friction-top closures alone are not acceptable and must be packed within a strong and securely sealed outer packaging.

(2) **Secure Closures:** Locking rings or similar devices are recommended for containers with friction-top closures (push-down tops).

(3) **Secure Caps:** Screw-cap closures with at least one and one-half turns, soldering clips, or other effective closures are required for a secure seal.

(4) **Triple-Packaging:** Nonmetal liquid containers exceeding 4 ounces, including plastic containers, and metal containers with friction-top closures, must be triple-packaged. This includes:

(a) Absorbent Material: Sufficient to absorb all liquid in the container(s) in case of breakage.

(b) Leakproof Secondary Packaging: A watertight can or plastic bag surrounding the primary container(s).

(c) Outer Packaging: Securely sealed and strong enough to protect the contents, and durable enough to withstand normal processing in Postal Service networks.

(5) **Exemptions for Steel Containers:** Steel pails and drums with carrying handles and secure closures (e.g., locking rings or recessed spouts with screw-cap closures) are mailable without additional packaging.

(6) **International Safe Transit Association (ISTA) Certification Alternative:** Mailers may use containers certified by the ISTA to have passed ISTA's Test Procedure 3A. Upon request, mailers must provide written test results verifying that sample mailpieces have met all required tests with no liquid leakage detected.

b. **Powders and Cremated Remains:** Dry materials that could cause damage, discomfort, destruction, or soiling if they escape (leak) must be packaged in sift-proof containers or sealed within durable, sift-proof outer containers.

452 Motor Vehicle Master Keys and Locksmithing Devices

452.1 Definitions

452.11 Motor Vehicle Master Keys

A motor vehicle master key, as defined in 18 U.S.C. § 1716 and 39 U.S.C § 3002, includes any of the following:

a. **Master Key:** The key (or an exact duplicate) furnished with a replacement lock.

b. **Manipulation Device:** Any key or manipulation device designed to operate multiple motor vehicle ignition, door, or trunk locks of varying

combinations, including patterns, impressions, or molds used to create a master key or manipulation device.

452.12 Locksmithing Devices

A locksmithing device includes any of the following:

a. **Lock Manipulation Tool:** Any device or tool (other than a key) designed to manipulate a lock's tumblers into the unlocked position through the keyway.

b. **Bypass Tool:** Any device or tool other than a key or a lock manipulation tool under 452.12(a) designed for bypassing a lock, or similar security device, by means not commonly used by consumers for such a purpose.

c. **Impression Device:** Any device or tool designed for making an impression of a key or similar security device to duplicate a key.

452.2 Mailability

The following conditions apply for mailing motor vehicle master keys and locksmithing devices:

a. **Motor Vehicle Master Keys:** As defined in 452.11, motor vehicle master keys, and any advertisement for the sale of such items, are nonmailable, unless sent to any of the following categories of addressees:

(1) Lock manufacturers.

(2) Professional locksmiths.

(3) Motor vehicle manufacturers or dealers.

(4) Federal, state, or local government agencies.

b. **Locksmithing Devices:** As defined in 452.11, locksmithing devices are nonmailable except when sent to any of the following categories of addressees:

(1) Lock manufacturers or distributors.

(2) Bona fide locksmiths.

(3) Bona fide repossessors.

(4) Motor vehicle manufacturers or dealers.

(5) Bona fide automotive repair shops or businesses.

452.3 Packaging and Marking

No markings of any kind that indicates the nature of the contents may be placed on the outer wrapper or packaging of any mailpiece containing motor vehicle master keys or locksmithing devices. Mailable items must be properly and securely packaged in accordance with DMM 601 requirements.

452.4 Nonmailable Matter Found in the Mail

Nonmailable motor vehicle master keys and locksmithing devices discovered in the mailstream must be reported in accordance with POM 139.117

453 Controlled Substances and Drugs

453.1 Definitions

453.11 Controlled Substances

Controlled substances include any anabolic steroid, narcotic, hallucinogenic, stimulant, or depressant drug identified in Schedules I through V of the Controlled Substances Act in 21 U.S.C. § 801 and the implementing regulations in 21 CFR § 1300.

Controlled substances include poisons, compositions containing poisons, poisonous drugs and medicines, or materials that may kill or injure within the intent and meaning of 18 U.S.C. § 1716.

453.12 Drugs

The term “drug” refers to:

a. **Prescription Drugs:** Licensed medicines that require a written order by a medical doctor or pharmacist before they can be obtained. Certain poisonous (toxic) drugs and medicines may require Division 6.1 material handling as described in Chapter 3.

b. **Over-the-Counter (OTC) Drugs:** Medicines that can be obtained without a prescription, such as patent medicines, aspirin, antiseptics, cold remedies, diet pills, and cosmetic medicines that do not contain a controlled substance and are not poisonous drugs or medicines.

453.13 Drug Paraphernalia

Drug paraphernalia refers to any equipment, product, or material primarily intended or designed for use in manufacturing, compounding, converting, concealing, producing, processing, preparing, injecting, ingesting, inhaling, or otherwise introducing a controlled substance into the human body.

Examples of drug paraphernalia include, but are not limited to:

a. **Ingestion/Inhalation Devices:** Items such as metal, wooden, acrylic, glass, stone, plastic, or ceramic pipes (with or without screens); water pipes; chamber pipes; smoking and carburetion masks; carburetor pipes; chillums; electric pipes; ice pipes or chillers; air-driven pipes; and bongs.

b. **Other Instruments:** Roach clips (i.e., objects used to hold burning material that is too small or short to be held in the hand); miniature spoons with level capacities of 1/10 cubic centimeter or less; wired cigarette papers; cocaine freebase kits; and carburetion tubes.

453.131 Determination of Drug Paraphernalia

In determining whether an item constitutes drug paraphernalia, in addition to all other logically relevant factors, the following factors may be considered:

a. **Descriptive Materials:** Oral or written instructions or other descriptive materials provided with the item that explain or depict its use.

b. **Advertising:** National and local advertising for the item's use.

c. **Sales Display:** The way the item is displayed for sale.

d. **Supplier Credibility:** Whether the owner, or anyone in control of the item, is a legitimate supplier of like or related items to the community, such as a licensed distributor or dealer of tobacco products.

e. **Sales Ratio:** Direct or circumstantial evidence of the item's sales relative to total business sales

f. **Legitimate Use:** The existence and scope of legitimate uses of the item in the community.

g. **Expert Testimony:** Expert testimony on its use.

453.132 Exceptions

The standards in 453.13 and 453.131 do not apply to any person legally authorized by local, state, or federal law to manufacture, possess, or distribute items described in 453.13 and 453.131, nor to any item that, in the normal lawful course of business, is sold through the mail and traditionally intended for use with tobacco products, including any pipe, paper, or accessory.

453.2 Mailer Responsibility

The mailer is fully responsible for the following:

a. **Regulatory Compliance:** Ensuring compliance with Postal Service regulations, as well as federal, state, and local laws governing distribution (e.g., the Poison Prevention Packaging Act and the Consumer Product Safety Act), and regulations governing distribution of unsolicited samples.

b. **Material Awareness:** Understanding characteristics of an article or substance, such as its flammability, toxicity, or corrosiveness that may affect mailability.

453.3 Mailability

453.31 Controlled Substances

If the distribution of a controlled substance is unlawful under 21 U.S.C. § 801-971 or any implementing regulation in 21 CFR Chapter 2, then the mailing of the substance is also unlawful under 18 U.S.C. § 1716.

Controlled substances, and drugs that contain controlled substances, are acceptable in the domestic mail only under the following conditions:

a. **Authorized Mailers:** Both the mailer and addressee must meet either of the following conditions:

(1) **Registration with DEA:** Be registered with the Drug Enforcement Administration (DEA).

(2) **Exemption from DEA Registration:** Be exempted from DEA registration, such as military, civil defense, and law enforcement personnel, in performing official duties.

b. **Mail-Back Programs:** Mail-back programs conducted in accordance with 453.7.

c. **Prescription Medications:** Prescription medicines containing mailable narcotic drugs (controlled substances), when mailed by drug manufacturers or their registered agents, pharmacies, medical practitioners, or other authorized dispensers, as permitted by 21 CFR §

1307.11, or in compliance with any regulation of the FDA or other applicable law.

453.32 Drugs (Other Than Controlled Substances)

Prescription, nonprescription, and patent medicines and related items, including solicited and unsolicited samples, that are not considered to be controlled substances under 453.11, are permitted to be mailed as follows:

a. **Prescription Medicines (Nonnarcotic):** Only a pharmacists, medical practitioners, or other authorized dispensers may mail nonnarcotic prescription medications to patients under their care.

b. **Nonprescription Medicines:** The mailer must meet all applicable federal, state, and local laws that may apply (refer to 453.2).

453.33 Poisonous Drugs and Medicines

Poisonous drugs and medicines are mailable only from manufacturers or dealers to licensed medical professionals, including physicians, surgeons, dentists, pharmacists, druggists, cosmetologists, barbers, and veterinarians (18 U.S.C. § 1716). Certain poisonous drugs are subject Division 6.1 materials requirements in Chapter 3.

453.34 Small Amounts for Law Enforcement Purposes

Mailing of small amounts of unknown matter suspected to contain controlled substances to federal, state, or local law enforcement agencies, for law enforcement purposes, is permissible provided all applicable packaging requirements in 453.4 are met.

453.35 Drug Paraphernalia

Mailing drug paraphernalia is illegal under the Controlled Substances Act. Any article deemed unlawful under the Controlled Substances Act is prohibited from mailing (refer to 453.13).

453.36 Return of Prescription Drugs

Mailers may use *USPS Returns* to return prescription drugs for purposes of drug recalls, voluntary manufacturer withdrawals, and dispensing errors (such as incorrect drug, dosage, or strength), as permitted by 21 CFR § 1307.11 or other applicable law.

Mailers must address returns to the manufacturer or registered agent and utilize *USPS Returns Service* via *Priority Mail Return* service (refer to DMM 505.3.0). Manufacturers or their registered agents must supply mailing containers and maintain DEA or FDA regulatory compliance records.

453.37 Hemp-Based Products

For purposes of this section, "hemp" refers to the definition provided under federal law, including Section 10113 of the Agricultural Improvement Act of 2018, Pub. L.115-334 (7 U.S.C. § 1639o), or any successor provision. Hemp and hemp-based products, including cannabidiol (CBD) with the tetrahydrocannabinol (THC) concentration of such hemp (or its derivatives) not exceeding a 0.3 percent limit are permitted to be mailed domestically only when the mailer:

a. Complies with all applicable federal, state, and local laws, including U.S. Department of Agriculture approved plans for hemp production, processing, distribution, and sales (7 CFR Part 990).

b. Retains records establishing compliance with such laws and plans, including laboratory test results, licenses, or compliance reports, for no less than 3 years after the date of mailing.

Shipments of hemp and hemp-based products, including CBD, are prohibited in international mail, including items for delivery to overseas Army Post Office, Fleet Post Office, and Diplomatic Post Office addresses (APO/FPO/DPO).

453.4 Packaging and Marking

All mailable drugs require secure packaging to prevent damage or dislodgement during transit. Specific packaging conditions include:

a. **Controlled substances:** Inner packaging for controlled substances must be marked and sealed in accordance with the applicable provisions and regulations of the Controlled Substances Act (refer to 453.11). This packaging must be labeled to display the prescription number, as well as the name and address of the pharmacy, practitioner, or other person dispensing the prescription. The package must be securely held within a plain outer wrapper or packaging with no markings indicating its contents. General packaging requirements in DMM 601.1-7 also apply.

b. **Drugs and Medicines:** Mailable drugs and medicines that do not contain controlled substances, except for promotional samples per item c. (below), must be enclosed in a plain outer wrapper or packaging.

c. **Promotional Samples:** Promotional samples of mailable OTC, non-controlled, non-prescription drugs or medicines may display a brief description of the sample, as well as the marking "Sample Enclosed", on the outside packaging of the mailpiece.

453.5 Rulings

Product rulings depend on the chemical composition , which may vary due to formulation updates (-e.g., "new and improved" versions).

Requests for rulings must include the product's trade name and information about any known hazardous ingredients. Generic descriptions (e.g., "tranquilizers") are not sufficient. Requests are directed to the local postmaster (refer to 215.3).

453.6 Nonmailable Matter Found in the Mail

Nonmailable controlled substances, drugs, and drug paraphernalia discovered in the mailstream must be immediately reported in accordance with POM 139.117.

453.7 Mail-Back Programs

Authorized DEA registrants who wish to receive lawfully obtained unused or unwanted pharmaceuticals from ultimate users for the purpose of disposal must obtain Postal Service authorization. Mail-back programs may only be

authorized within the customs territory of the U.S. (the 50 states, D.C., and Puerto Rico) and are subject to the following conditions:

a. **DEA Authorization:** DEA registrants wishing to serve as mail-back collectors must secure authorization from the DEA prior to conducting a mail-back program and must have the ability to destroy the returned substances onsite.

b. **Postal Service Authorization:** DEA-registered mail-back collectors must also obtain authorization from the Postal Service before implementing any mail-back program by submitting a letter of request to the director, Product Classification (refer to 214 for contact information). The letter of request must include:

(1) **Registrant's Information:** Name, address, and DEA certificate of registration.

(2) **Mail-Back Collector's Registered Location:** DEA-registered address.

(3) **Disposal Cost Coverage:** An irrevocable $50,000 surety bond or letter of credit as proof of sufficient financial responsibility to cover disposal costs of any residual mail-back envelopes in Postal Service possession if the vendor ceases operations. The surety bond or letter of credit must be issued in the name of the vendor seeking the authorization and must name the Postal Service as the beneficiary or obligee.

(4) **Label Approval:** NCSC letter of approval for each label type used to conduct the mail-back program.

(5) **Sample Mailpieces:** Those intended for use with the mail- back program.

453.71 Packaging

Authorized mail-back participants must provide mailers with ready-made packaging. All packaging used in mail-back programs must adhere to the following:

a. **Nondescript:** Does not include any markings or other information that might indicate that the package contains controlled substances.

b. **Durable:** Water- and spill-proof, tamper-evident, tear-resistant, and sealable.

c. **Pre-addressed:** Pre-addressed for delivery to the authorized mail-back collector's registered address or the participating law enforcement's physical address.

d. **Postage Prepaid:** Using one of the following products:

(1) *Priority Mail Return* service.

(2) *Business Reply Mail* parcels.

e. **Instructions:** Contains directions for the return process.

453.72 Label Requirements

Applicants must establish a label generation process using unique Intelligent Mail package barcodes per DMM 708.5.1, Publication 199, and the Parcel Labeling Guide. (available at *https://postalpro.usps.com*).

Approval for label and barcode quality must be obtained from the National Customer Support Center (NCSC) before requesting authorization.

453.73 Discontinuation of Service

Mail-back collectors transferring or discontinuing operations must notify the director, Product Classification (refer to 214 for contact information). If transferring operations, the authorized collector must provide the name, registered address, and registration number of the new mail-back collector who will receive the remaining mail- back packages, in accordance with DEA regulations.

453.8 Undeliverable Medicines

The disposition of undeliverable mailpieces containing drugs and medicines is governed by POM 691.52.

454 Unsolicited Promotional Samples

454.1 Definition

"Unsolicited promotional sample" refers to any unrequested merchandise item sent through the mail free of charge. This includes items such as patent medicines, cosmetics, laundry products, and razors.

454.2 Mailability

454.21 General

The fact that an item is unsolicited by the addressee generally does not affect its mailability unless the article is composed of hazardous materials or restricted matter. Hazardous materials are subject to the mailing conditions in Chapter 3, as applicable. Unsolicited items that are not hazardous materials may be subject to additional packaging requirements based on the contents (e.g., liquids, odd-shaped items).

454.22 Nonmailable Promotional Samples

454.221 Abortive and Contraceptive Devices or Materials

Any article or instrument designed, adapted, or intended for producing abortion is nonmailable (18 U.S.C. § 1461).

Unsolicited samples of an article or instrument designed, adapted, or intended for preventing conception is nonmailable, except when mailed to a manufacturer, dealer, licensed physician, surgeon, nurse, pharmacist, or a hospital or clinic (39 U.S.C. § 3001 and 18 U.S.C. § 1461).

454.222 Restricted or Improperly Prepared Unsolicited Samples

Certain unsolicited samples may be nonmailable for reasons including the following:

a. **Hazardous Materials:** The sample is restricted (e.g., a toxic substance or poison) and subject to the hazardous materials requirements in Chapter 3.

b. **Improper Packaging:** The sample is improperly prepared for mailing (refer to DMM 601). Additionally, certain material or matter must use appropriate child-resistant packaging as follows:

(1) **Pesticides:** Unsolicited pesticide samples (18 U.S.C. § 1716), or any matter containing a pesticide under 7 U.S.C. § 136(u) of the Federal Insecticide, Fungicide, and Rodenticide Act must comply with child-resistant packaging standards established by the Environmental Protection Agency (EPA) applicable to that particular matter (40 CFR § 157).

(2) **Poisons:** Unsolicted matter containing a substance under 15 U.S.C. § 1471(2) of the Poison Prevention Packaging Act of 1970 must comply with the child-resistant packaging established for that substance by the Consumer Product Safety Commission (16 CFR § 1700).

c. **Fragrance Samples:** Fragrance advertising samples (39 U.S.C. § 3001[g]) are nonmailable unless packaged to prevent involuntarily exposure, using paper stocks with a maximum porosity of 20 Sheffield units or 172 Gurley-Hill units treated exclusively with microencapsulated oils. The sample should be activated only by opening a glued flap or by removing an overlying ply of paper.

d. **Odd-Shaped Item in Letter-Sized Envelope:** The sample is an odd-shaped item in a letter-size envelope that is prohibited under DMM 601.3.3.

454.3 Certificate Compliance

Mailers presenting matter generally mailable, but subject to specified packaging and preparation requirements, may include a written statement on the mailer's letterhead, postage statement, or on the item itself, certifying that the matter is packaged or prepared per the applicable federal laws and Postal Service standards.

454.4 Customer Objection to Unsolicited Matter

Customers who object to receiving unsolicited matter should be informed that the Postal Service must accept any lawfully mailable, properly prepared matter with correct postage. Customers may contact the mailer or manufacturer to request removal from the mailing list. Customers also may refuse any piece of mail, either at the time it is offered for delivery or after it is delivered (if unopened), as provided in DMM 508.1 and POM 611.

454.5 Rulings

Rulings on mailablity may sometimes be issued based on a product's trade name, though more specific information is often required. Generic descriptions (e.g., "razor blade," "cleaner," "aerosol product," "drug") are insufficient for determining mailability. For a ruling on restricted matter, information outlined in 215 should be provided to the local postmaster.

If the matter for which the ruling is being requested has the physical characteristics of a toxic substance, flammable liquid, compressed gas, or other hazardous material, a ruling should be requested under the conditions in 215.2.

455 Building Construction Material

455.1 Definition

"Building construction material" refers to any material which is used for construction purposes, Including naturally occurring substances, such as clay, rocks, sand, and wood, as well as some man-made products using synthetic materials.

455.2 Mailability

Building construction material is not permitted in the mail if its acceptance and processing is likely to harm or injure Postal Service employees, mail, or equipment. Factors considered include, but are not limited to:

a. Potential storage issues at processing facilities.

b. Impact on mail-flow in Postal Service transportation or mail distribution systems.

c. Security risks associated with the material's volume.

d. Safety hazards for Postal Service employees during processing.

455.3 Rulings

Rulings on mailability depend on the product's composition. Requests for rulings must include the product's trade name and information about any known hazardous ingredients. Generic descriptions (e.g., shingles, bricks, cement blocks) are not sufficient. Requests for rulings are directed to the local postmaster (refer to 215).

455.4 Nonmailable Matter Found in the Mail

Nonmailable building construction material discovered in the mailstream must be immediately reported in accordance with POM 139.117.

456 Lottery

456.1 Definition

A "lottery" is any scheme or promotion, regardless of state legality, where a prize is offered based on lot or chance and requires payment for participation. "Lottery matter" refers to any check, draft, bill, money, Postal note, or money order sent through the mail for the purchase of any ticket or share in a lottery, gift enterprise, or scheme, or for paying prepaid taxes or fees purportedly required to collect lottery winnings.

456.2 Mailability

Lottery tickets and related items are statutorily defined as nonmailable under 39 U.S.C. § 3001, *Nonmailable Matter*. Specifically, 39 U.S.C. § 3001(a) defines as nonmailable any matter deposited in the mail which is punishable under 18 U.S.C. § 1302, *Mailing Lottery Tickets or Related Matter*, which prohibits mailing lottery tickets or related items and imposes criminal penalties. "Related matter" includes funds remitted through the mail as noted in 456.1 and DMM 601.9.3.

456.3 Nonmailable Determination

Excluding fishing contests, the Indian Gaming Regulatory Act, and certain lotteries, as defined in DMM 601.9.3.3, the following factors may be considered when determining whether a mailing constitutes nonmailable lottery-related matter:

a. **Sender or Recipient Statements:** Assertions that the mailing contains lottery-related material.

b. **Return Address Profile:** The mailing matches a pre-established profile of lottery-related mailings based on the sender's return address

c. **Recipient Address:** Evidence that the recipient address is used to receive lottery-related mailings.

46 Animal-Fighting Ventures

461 Definitions

The following definitions apply:

a. **Animal:** Any live bird, dog, or other mammal (except human) for the purposes of participating in an animal-fighting venture.

b. **Animal-Fighting Venture:** Any event involving or affecting interstate or foreign commerce where a fight is conducted or intended between at least two animals for purposes of sport, wagering, or entertainment. This excludes activities primarily involving animals hunting other animals.

c. **Animal-Fighting Accessory:** A knife, gaff, or other sharp instrument attached to or intended to be attached, to a bird's leg in an animal-fighting venture.

d. **Animal-Fighting Matter:** Written, printed, or graphic matter (e.g., advertisements or other commercial speech) promoting or furthering an animal-fighting venture.

462 Mailability

The following conditions apply:

a. **Live Animals:** Mailing live animals for the purpose of participating in an animal-fighting venture, as defined in 461(b), is prohibited, regardless of the venture's legality within any U.S. state, district, commonwealth, territory, or possession. Violators are subject to criminal penalties under 7 U.S.C. § 2156 and 18 U.S.C. § 49.

b. **Animal-Fighting Accessories:** Mailing items considered to be animal-fighting accessories, as defined in 461(c), is prohibited. Violators are subject to criminal penalties under 7 U.S.C. § 2156.

c. **Animal-Fighting Matter:** Matter promoting or furthering an animal-fighting venture is nonmailable, except for ventures involving live birds permitted under the laws of the state in which they are conducted (refer to DMM 601.7.5.7).

47 Cigarettes, Smokeless Tobacco, and Electronic Nicotine Delivery Systems

471 Definitions

The following definitions apply:

a. **Cigarette:** Any roll of tobacco wrapped in paper or in any substance not containing tobacco, or a roll of tobacco wrapped in any substance containing tobacco that, due to its appearance, the type of tobacco used in the filler, or its packaging and labeling, is likely to be offered to, or purchased by, consumers as a cigarette. The term cigarette includes roll-your-own tobacco and excludes cigars.

b. **Smokeless Tobacco:** Any finely cut, ground, powdered, or leaf tobacco intended to be placed in the oral or nasal cavity or otherwise consumed without combustion.

c. **Cigar:** Any roll of tobacco wrapped in leaf tobacco or in any substance containing tobacco, unless, due to appearance, the type of tobacco used in the filler, or its packaging and labeling, is likely to be offered to or purchased by consumers as a cigarette.

d. **Roll-Your-Own Tobacco:** Any tobacco which because of its appearance, type, packaging, or labeling, is suitable for use and likely to be offered to or purchased by consumers as tobacco for making cigarettes or cigars, or for use as wrappers thereof.

e. **Electronic Nicotine Delivery System (ENDS):** Any electronic device that delivers nicotine, flavor, or any other substance through an aerosolized solution. ENDS include but are not limited to:

(1) Electronic cigarettes (e-cigarettes).

(2) Electronic hookahs (e-hookahs).

(3) Electronic cigars (e-cigars).

(4) Vape pens.

(5) Advanced refillable personal vaporizers.

(6) Electronic pipes.

Any reference to ENDS includes any component, liquid, part, or accessory of an ENDS device, regardless of whether they are sold or provided separately or contains or is used with nicotine.

f. **Covered Product:** For purposes of Section 47, any cigarette, smokeless tobacco, or ENDS.

g. **Consumer Testing:** Testing limited to formal data collection and analysis for the specific purpose of evaluating the product for quality assurance and benchmarking purposes of cigarette brands or sub-brands among existing adult smokers.

h. **State:** Any of the 50 states of the United States, D.C., and any commonwealth, territory, or possession of the United States.

i. **Minimum Age:** The minimum age to send or receive covered products -as defined in item f. (above)—is 21 years old, in compliance with the

federally mandated minimum age, or any higher age requirement that may be imposed by state or municipal law for the legal sale or purchase of covered products at the place of acceptance or delivery, as applicable.

472 Covered Products Generally Nonmailable

472.1 General

The following are nonmailable:

a. Any shipment of covered products described in 473.1.

b. Shipments of covered products that are not described in 473.1 and do not qualify for an exception under 473.2 through 473.6.

c. Shipments of covered products not described in 473.1 and would generally qualify for an exception under 473.2 through 473.6, but fail to meet one or more conditions for the applicable exception. For example, a recipient may fail to be verified as being of at least the required minimum age (refer to 473.35(a), 473.45(a), and 473.55(a)), or a Return Receipt may be absent or lack the mailer's eligibility number (refer to 473.33(b) and 473.53(c)).

472.2 Treatment of Nonmailable Covered Products

472.21 Refusal of Acceptance and Transmission

The Postal Service will not accept, forward, or deliver packages it knows, or reasonably believes, to contain nonmailable covered products. If the Postal Service reasonably suspects a mailer is tendering nonmailable covered products, the mailer bears the burden of proof in establishing eligibility to mail.

472.22 Seizure and Forfeiture

Nonmailable covered products deposited in the mail are subject to seizure and forfeiture. Seized and forfeited nonmailable covered products will be destroyed or retained by the federal government for crime detection, prosecution, or related investigations, and then destroyed.

472.23 Disposition of Nonmailable Covered Products Not Seized and Forfeited

Nonmailable covered products not seized and forfeited will be handled in accordance with 216 and 414.

472.24 Penalties

Persons involved in the shipment or attempted shipment of nonmailable covered products may be subject to seizure and forfeiture of assets (18 USC § 3061(a)(5), 18 USC § 981, 18 USC § 982, 18 USC § 1963, 21 USC § 881, 21 USC § 853, 21 USC § 863, 39 CFR § 233.7), criminal fines and imprisonment (18 USC § 1716), and civil penalties (39 USC § 3018, 39 CFR § 233.12(f)).

472.3 Reasonable Cause to Suspect Covered Products

Among any other potentially relevant circumstances, the Postal Service has reasonable cause to suspect the presence of covered products based on:

a. Publicly available statements or advertisements indicating that a person will mail nonmailable matter in return for payment.

b. The mailer or person on whose behalf the mailing is being made is on the U.S. Attorney General's List of Unregistered or Noncompliant Delivery Sellers.

c. Any other characteristics of a package or label, individually or in combination with other packages or labels, that reasonably indicate the likely presence of covered products.

472.4 Applicability of Other Laws and Regulations

Shipments permitted under 473 remain subject to all other applicable federal, state, and local laws and regulations. For example, ENDS that consist of or contain one or more of the following may be subject to prohibitions, restrictions, or additional requirements stated elsewhere in this publication:

a. Controlled substances (including cannabis and cannabis derivatives).

b. Drug paraphernalia.

c. Lithium batteries.

d. Liquids.

e. Any toxic or flammable substance (e.g., nicotine, diacetyl propanol, and other components of ENDS liquids).

Mailers, recipients, and applicants are solely responsible for complying with all Postal Service regulations and other federal, state, and local laws when mailing covered products.

472.5 Recordkeeping

Mailers, recipients, and applicants must retain records to establish compliance with the requirements in 473 for a 6-year period and must make such records available to the Postal Service upon request.

473 Mailability Exceptions

473.1 Scope of Exceptions

Covered products are mailable if one of the conditions in 473.2 through 473.6 is met. These exceptions do not apply to the following:

a. Mail treated as domestic under DMM 608.2.2.

b. Mail sent to Army Post Office (APO), Fleet Post Office (FPO), or Diplomatic Post Office (DPO) addresses.

c. Mail presented at APO, FPO, or DPO installations and destined to addresses in the United States.

d. International mail as defined in DMM 608.2.3.

e. Mail presented outside a face-to-face transaction with a Postal Service employee at a Postal Service retail or business mail acceptance location. Prohibited entry methods include, but are not limited to:

(1) Pickup on Demand.

(2) Package pickup.

(3) An Approved Shipper location or other third-party acceptance location.

(4) A Contract Postal Unit.

(5) A Village Post Office.

(6) Placement in a customer mailbox, collection box, or Postal Service lobby drop.

473.2 Intra-Alaska and Intra-Hawaii Shipments

Intra-Alaska and intra-Hawaii shipments of covered products are mailable when such mailings:

a. Are presented in a face-to-face transaction with a Postal Service employee within the state and not through any entry method prohibited under 473.1(e).

b. Destinate in the same state of origin.

c. Display a valid, complete return address within the state of origin .

d. Are marked on the address side of the mailpiece with "INTRASTATE SHIPMENT OF [CIGARETTES/SMOKELESS TOBACCO/ENDS]" (with the applicable type selected).

473.3 Exception for Business/Regulatory Purposes

473.31 General

Eligibility to mail and to receive mail under the business/regulatory purposes exception is limited to federal and state government agencies and legally operating businesses that have all applicable state and federal government licenses or permits and are engaged in the manufacturing, distribution, wholesale, export, import, testing, investigation, or research of covered products.

Mailings under this exception are permitted only for business purposes between eligible businesses or for regulatory purposes between such businesses and eligible government agencies. Mailability is further restricted to mailings that comply with all conditions in 473.32 through 473.35.

473.32 Application

Each customer seeking to mail covered products under the *business/regulatory purposes exception* must submit a complete application (PS Form 4615 or 4615-E, as appropriate), along with any required worksheets for ENDS (Worksheets 4615-EM and 4615-ER as appropriate), and supporting documentation requested on those forms and worksheets.

The following conditions apply:

a. **Information Requirements:** Along with any other information requested on PS Form 4615 or 4615-E and Worksheets 4615-EM and 4615-ER, the applicant must furnish the following information:

(1) The applicant's legal status, copies of any applicable licenses, and authority under which the applicant operates.

(2) The recipient's legal status, copies of any applicable licenses, and operational authority for all recipients to which the mailings under this exception will be addressed.

(3) All Post Office locations where mail containing covered products will be presented.

(4) The nature of the relevant business activities (e.g., manufacturing, wholesale, distribution, testing, investigation, import, and export) for each business mailer and/or recipient.

(5) The brand name and a description of each product intended to be mailed. For ENDS, descriptions must include:

(a) The source of any CBD.

(b) The concentration of any THC.

(c) Safety data sheets or technical specification documentation for any hazardous materials (e.g., lithium batteries, nicotine, diacetyl, or propanol).

b. **Applicant Responsibilities:** The applicant is responsible for establishing the eligibility of each sender and recipient, and for ensuring the accuracy, completeness, and currency of all information provided. Applications must be submitted to MDA@usps.gov as follows:

(1) **For cigarettes and smokeless tobacco:** PS Form 4615.

(2) **For ENDS:** PS Form 4615-E and Worksheets 4615-EM and 4615-ER.

c. **Eligibility Determination by PCSC:** The director of PCSC will determine eligibility to mail under the business/regulatory purposes exception. The following applies:

(1) The mailer bears the burden of establishing eligibility and must furnish any additional supporting documentation requested by the director of PCSC upon request as necessary.

(2) The director of PCSC may approve or deny an application in full or in part, specifying approved mailers or recipients.

(3) A number is assigned to each letter of eligibility.

d. **Updates to Information:** The applicant is responsible for any amendments to application information, including any updated documentation, at least 15 days before mailing to or from an involved entity.

e. **Waivers for Government Agencies:** Upon written request by a state or federal agency, the director of PCSC may, at their discretion, waive certain application requirements for mailings entered by state or federal agencies for regulatory purposes, with the authority to suspend, rescind, or modify any waiver at any time.

f. **Lapse of Eligibility:** Eligibility to mail under this exception will lapse if no mailings are tendered under this exception within any 3-year period, requiring the mailer to reapply for future mailings.

g. **Access to Authorized Mailers List:** Current lists of authorized mailers will be made available to retail and business mail acceptance personnel.

473.33 Mailing

Mailings tendered under the *business/regulatory purposes exception* must meet the following requirements:

a. **Prepaid Shipping Labels:** Utilize prepaid shipping labels with Intelligent Mail package barcodes.

b. **Eligible Mail Products:** Be mailed by one of the following mail products:

(1) *Priority Mail Express.*

(2) *Priority Mail.*

(3) *USPS Ground Advantage.*

c. **Adult Signature:** Include *Adult Signature* or *Adult Signature Restricted Delivery* service (refer to DMM 503.8.2).

d. **Domestic Return Receipt:** A Domestic Return Receipt (PS Form 3811) must accompany the mailpiece. The eligibility number issued by the PCSC must appear in the sender's address block with the return address as follows:

PCSC, PACT MAILING OFFICE
USPS ELIGIBILITY NO. XX-00-0000
90 CHURCH ST., STE 3100
NEW YORK, NY 10007-2951

e. **Marking:** The address side of the mailpiece must display the following marking, with the relevant type of item selected: "[CIGARETTE, SMOKELESS TOBACCO, or ENDS] MAILING-DELIVER ONLY TO EMPLOYEE OF ADDRESSEE [BUSINESS or AGENCY] UPON AGE VERIFICATION".

f. **Sender and Recipient Information:** The complete business or government agency name and mailing address for both the sender and recipient must be included. Each must exactly match those listed on the authorized mailer's application on file with the Postal Service.

g. **Entry Location:** The mailpiece must be entered at a retail and/or business mail acceptance location specified in the application and authorized by the PCSC.

473.34 Entry and Acceptance

Mailings under the business/regulatory purposes exception must be entered under the following conditions:

a. **Face-to-Face Transaction:** Covered products must be tendered via a face-to-face transaction with a Postal Service employee. Applicable mailings may not be tendered through any entry method prohibited under 473.1(e).

b. **Required Documentation:** The mailer must present Postal Service acceptance personnel with the following:

(1) **Shipments of Cigarettes and/or Smokeless Tobacco:** A letter from the PCSC authorizing the mailer, addressee, and acceptance location.

(2) **Shipments of ENDS:**

(a) A letter from the PCSC authorizing the mailer to ship under this exception.

(b) A PCSC-approved Worksheet 4615-ER authorizing the addressee.

(c) If applicable, a PCSC-approved Worksheet 4615-EM authorizing the mailer and the acceptance location.

c. **Verification by Postal Service:** The Postal Service employee must verify that the mailer, addressee, and acceptance location match those authorized by the PCSC, based on the mailer's documentation and the current list of authorized mailers available to the Postal Service employee.

473.35 Delivery

Mailings displaying the marking for business/regulatory purposes are delivered to a verified employee of the addressee business or government agency under the following conditions:

a. **Age Verification:** The recipient must be an adult of at least the required minimum age (refer to 471(i)). A Postal Service employee must verify the recipient's age using a government-issued photo identification that lists age or date of birth (.(e.g., driver's license or passport).

b. **Employment Verification:** The recipient must demonstrate status as an employee of the business or government agency identified as the addressee on the mailing label. Proof of employment may take the form of one or more of the following:

(1) An employee identification badge or card issued by the employer and including the following:

(a) Employee’s name.

(b) Employer’s name.

(c) Employer’s telephone number.

(2) A signed letter on company or agency letterhead from a supervisor or human relations office attesting to the recipient's current employment.

(3) Where delivery is made to a business address, employment status may be inferred from the carrier's observation of such factors as the recipient's uniform and presence at a reception desk or retail counter.

(4) Any other form of identification that the postmaster deems to be of comparable reliability.

c. **Signature Requirements:** Upon verifying age and employment, the recipient must sign for receipt of delivery and in the appropriate signature block of PS Form 3811.

473.4 Exception for Certain Individuals

473.41 General

The exception for certain individuals permits the mailing of small quantities of covered products by individual adults for noncommercial purposes.

Mailings under this exception must meet all conditions in 473.42 through 473.45. Eligible shipments may be sent to any type of recipient (individual, business, government, or other organization).

473.42 Noncommercial Purposes

Noncommercial purposes may include, but are not limited to, the following:

a. **Gift Exchanges:** Covered products exchanged as gifts between individual adults. "Gifts" do not include covered products purchased from a third-party vendor for another individual through a mail-order transaction or covered products included at no additional charge with other matter in accordance with a commercial transaction.

b. **Returns:** Damaged or unacceptable covered products returned by consumers to the manufacturer or other business. The manufacturer or other business may provide the consumer with a refund, credit, replacement product, or other form of value in exchange for the damaged or unacceptable covered product if it does not exceed the amount that the consumer paid for the returned product plus the cost of return shipping for it.

c. **Recycling:** Used covered products sent by consumers to a manufacturer or other business for recycling provided the consumer does not receive anything of value (e.g., a discount, credit, or rebate) in exchange for a returned item.

473.43 Mailing

No customer may send or cause to be sent more than ten mailings under this exception in any 30-day period. Each mailing under the certain-individuals exception must meet the following requirements:

a. **Weight Limit:** Weigh no more than 10 ounces.

b. **Prepaid Shipping Labels:** Utilize prepaid shipping labels with Intelligent Mail package barcodes that include the following:

(1) Full name and mailing address of the sender and recipient, and

(2) The following exterior marking on the address side of the mailpiece, with the relevant type of item selected: "PERMITTED [CIGARETTE/ SMOKELESS TOBACCO/ ENDS] MAILING - DELIVER ONLY UPON AGE VERIFICATION."

(3) *Adult Signature* or *Adult Signature Restricted Delivery* service (refer to DMM 503.8.0).

(4) Be sent by one of the following mail products:

(a) *Priority Mail Express*.

(b) *Priority Mail*.

(c) *USPS Ground Advantage*.

473.44 Entry and Acceptance

Mailings under the *certain-individuals* exception must be entered under the following conditions:

a. **Face-to-Face Transaction:** Covered products must be tendered via a face-to-face transaction with a Postal Service employee. Applicable mailings may not be tendered through any entry method prohibited under 473.1(e).

b. **Identification Requirements:** The sender must present a government-issued photo identification that lists age or date of birth (e.g., driver's license or passport). The following also applies:

(1) The name on the identification must match the sender's name in the return address block of the mailpiece.

(2) The sender must be an adult of at least the required minimum age at the place of acceptance (refer to 471(i)).

c. **Age Confirmation for Addressee:** For mailings addressed to an individual, at the time the mailing is presented, the sender must orally confirm that the addressee is an adult of at least the required minimum age at the place of delivery (refer to 471(i)).

473.45 Delivery

Delivery under the *certain-individuals exception* must adhere to the following conditions:

a. **Age Verificaiton:** The recipient must be an adult of at least the required minimum age (refer to 471(i)). A Postal Service employee must verifythe recipient's age using a government-issued photo identification that lists age or date of birth (e.g., driver's license or passport).

b. **Signature Requirement:** Upon verifying age, the recipient must sign for receipt of delivery.

473.5 Consumer-Testing Exception

473.51 General

The *consumer-testing exception* permits legally operating cigarette manufacturers, or their legally authorized agents, to mail cigarettes to verified adult smokers solely for consumer testing purposes. Eligible manufacturers must hold a valid permit issued per 26 U.S.C.§ 5713. The *consumer-testing exception* applies only to cigarettes, excluding smokeless tobacco and ENDS. Mailability is further restricted to mailings that comply with all conditions in 473.52 through 473.55.

473.52 Application

Those seeking authorization to mail cigarettes under the *consumer-testing exception* must submit a completed application (PS Form 4616), along with all supporting documentation requested on that form, to MDA@usps.gov. The following conditions apply to each application:

a. **Required Information:** The applicant must provide the following information:
   (1) A copy of the relevant manufacturer's permit issued per 26 U.S.C. § 5713.
   (2) Details about any agency relationship with the manufacturer, if the applicant is an agent of a manufacturer.
   (3) A list of all locations where mail containing cigarettes for consumer testing will be presented.

b. **Compliance Certification:** Applicants must certify in writing they will comply with the following requirements:
   (1) All recipients of consumer-testing cigarette samples are verified adult smokers.
   (2) Recipients do not make any payments for the cigarettes.
   (3) Each recipient will sign a statement indicating desire to receive the mailings.
   (4) The manufacturer, or their legally authorized agent, will provide recipients the opportunity to withdraw their written statement at least once every 3 months.
   (5) Each package mailed under this exception will contain no more than 12 packs of cigarettes (maximum of 240 cigarettes), on which all applicable state and local taxes have been paid and the necessary tax stamps or other tax-payment indicia have been applied.

c. **Submission of Application:** Applications must be emailed to the director, PCSC, at MDA@usps.gov. The applicant bears the burden of establishing eligibility.

d. **Record Submission:** Upon request, the applicant must provide any records establishing compliance to the director, PCSC, and/or the director, Product Classification (refer to 214 for contact information), within 10 business days of the request.

e. **Eligibility Determination:** The director, PCSC, determines eligibility to mail under the consumer-testing exception. The following applies:
   (1) The director of PCSC may approve or deny an application in full or in part, specifying approved mailers or recipients.
   (2) A number is assigned to each letter of eligibility.

f. **Updates to Information:** The applicant is responsible for any amendments to application information, including any updated documentation, at least 15 days before mailing to or from an involved entity.

g. **Lapse of Eligibility:** Eligibility to mail under this exception will lapse if no mailings are tendered under this exception within any 3-year period, requiring the mailer to reapply for future mailings.

h. **Access to Authorized Mailers List:** Current lists of authorized mailers will be made available to retail and business mail acceptance personnel.

473.53 Mailing

Mailings tendered under the consumer-testing exception must meet the following provisions or conditions:

a. **Tobacco Content:** Each package mailed under this exception will contain no more than 12 packs of cigarettes (maximum of 240 cigarettes), on which all applicable state and local taxes have been paid, and the necessary tax stamps or other tax-payment indicia have been applied.

b. **Service Requirements:** One of the following combinations of services must be used:

(1) *Priority Mail Express* with *Adult Signature Required* or *Adult Signature Restricted Delivery* service (refer to DMM 503.8.0).

(2) *Priority Mail* with *Adult Signature Required* or *Adult Signature Restricted Delivery* service.

c. **Domestic Return Receipt:** A Domestic Return Receipt (PS Form 3811) must accompany the mailpiece. The eligibility number issued by the PCSC must appear in the sender's address block, with the return address as follows:

PCSC, PACT MAILING OFFICE
USPS ELIGIBILITY NO. XX-00-0000
90 CHURCH ST., STE 3100
NEW YORK, NY 10007-2951

d. **Marking:** The address side of the mailpiece must display the following marking, with the relevant type of item selected: "PERMITTED CIGARETTE MAILING - DELIVER ONLY TO ADDRESSEE UPON AGE VERIFICATION".

e. **Sender and Recipient Information:** The complete mailing address of both the mailer and recipient. Each must exactly match those listed on the authorized mailer's application on file with the Postal Service.

f. **Destination Restrictions:** Packages mailed under this exception must not be addressed to any locations within a state that prohibits delivery or shipment of cigarettes to individuals.

g. **Recipient Eligibility:** Packages mailed under this exception must be sent only to addressees who:

(1) Have not made any payment for the cigarettes.

(2) Are being paid a fee for participation in consumer tests.

(3) Have agreed to evaluate the cigarettes and furnish feedback to the manufacturer in connection with the consumer test.

h. **Frequency Limitation:** No more than one package from a single manufacturer may be sent to an adult smoker within any 30-calendar day period.

i. **Entry Location:** The mailpiece must be entered at a retail and/or business mail acceptance location specified in the application and authorized by the PCSC.

473.54 Entry and Acceptance

Mailings under the *consumer-testing* exception must be entered under the following conditions:

a. **Face-to-Face Transaction:** Covered products must be tendered via a face-to-face transaction with a Postal Service employee. Applicable mailings may not be tendered through any entry method prohibited under 473.1(e).

b. **PCSC Authorization Letter:** The mailer must present Postal Service acceptance personnel with a letter from the PCSC authorizing the mailer, addressee, and acceptance location.

c. **Verification by Postal Service:** The Postal Service employee must verify that the mailer, addressee, and acceptance location match those authorized by the PCSC, based on the mailer's documentation and the current list of authorized mailers available to the Postal Service employee.

473.55 Delivery

Mailings bearing the marking for consumer testing will only be delivered to the named addressee under the following conditions:

a. **Age Verification:** The recipient must be an adult of at least the required minimum age (refer to 471(i). A Postal Service employee must verify the recipient's age using a government-issued photo identification that lists age or date of birth (e.g., driver's license or passport). Additionally, the name on the identification must match the name of the addressee on the *Priority Mail Express* or *Priority Mail* label.

b. **Signature Requirements:** Upon verifying age and identity, the recipient must sign for receipt of delivery and in the appropriate signature block of PS Form 3811.

473.6 Public Health Exception

Federal government agencies involved in conducting consumer testing of tobacco products solely for public health purposes may mail cigarettes (excluding smokeless tobacco or ENDS) per the mailing standards of 473.5, with the following exceptions:

a. **Manufacturer's Permit Exemption:** Federal agencies are not required to have a manufacturer's permit per 26 U.S.C. § 5713.

b. **Fee Requirement Waiver:** Recipients are not required to receive a participation fee for consumer testing.

c. **Waivers for Federal Agencies:** Upon written request by a federal agency, the director of PCSC may, at their discretion, waive certain application requirements for mailings entered by that federal agency for regulatory purposes, with the authority to suspend, rescind, or modify any waiver at any time.

473.7 Suspension or Revocation of Eligibility

Eligibility to mail under one of the exceptions in 473.2 through 473.6 may be suspended or revoked by the director, PCSC, in the event of non-compliance with any applicable law or regulation. The following provisions apply to eligibility suspensions or revocations:

a. **Appealing Initial Decision:** Customers may appeal an adverse initial decision to the director, Product Classification (refer to 214 for contact information).

b. **Proof of Eligibility:** The mailer bears the burden of proof in establishing eligibility in any appeal of a suspension or revocation decision and for providing all requested supporting documentation.

c. **Further Appeals:** Decisions by the director, Product Classification, to revoke a customer's eligibility under any exception may be appealed to the Judicial Officer per 39 CFR Part 953.

474 Additional Guidance

474.1 Interpretative Guidance

Definitions in 471(a-e) and the exclusion in 474.2 align with section 1 of the Jenkins Act (15 U.S.C. § 375), which is administered by the ATF. Requests for interpretative guidance regarding these provisions may be directed to the ATF at the following address, with a copy to the PCSC (refer to 213 for contact information):

BUREAU OF ALCOHOL, TOBACCO, FIREARMS AND EXPLOSIVES
99 NEW YORK AVENUE NE
c/o 90 K ST. NE, STE. 250
WASHINGTON, DC 20226

474.2 Exclusion of Products Approved for Tobacco Cessation or Therapeutic Purposes

A product is excluded from the definition of ENDS in 471(e) (15 U.S.C. § 375[7][C]) if it is approved by the FDA for sale as a tobacco-cessation product or other therapeutic purpose and is marketed and sold solely for such purposes.

Parties seeking to mail a product under this exclusion should submit appropriate documentation to ATF at the address provided in 474.1, with a copy to the PCSC (refer to 213 for contact information).

5 Perishable Matter

51 Definition

511 General Definitions

Perishable matter is a designation of items that fall within one of three categories: mailable, mailable with restrictions, or prohibited.

Perishable matter is anything that can deteriorate in the mail and thereby lose value, create a health hazard, or cause an obnoxious odor, nuisance, or disturbance, under ordinary mailing conditions. Mailable perishable matter may be sent at the mailer's own risk when it is packaged as required and when it can be delivered within appropriate and reasonable time limits to prevent deterioration.

Examples of perishable matter include mailable types of live animals, food items, and plants.

512 Federal Statutes

Federal statutes impose restrictions and prohibitions on the mailing of fish, wildlife, plants, and products made from them, as well as plant pests, injurious animals, and taken fish, wildlife, and plants. The purpose of these restrictions and prohibitions is to protect agriculture, ecosystems, and natural resources in the United States (U.S.). Additional information on these restrictions and prohibitions can be found in the Lacey Act and in the Endangered Species Act, U.S. Fish & Wildlife Service, the Animal Welfare Act, and the Plant Protection Act under the U.S. Department of Agriculture. Additional information can be found in Publication 14, *Prohibitions and Restrictions on Mailing Plants, Animals, and Related Matter*.

513 Live and Perishable Handling Fee

The Live Animal and Perishable Handling Fee is a fee assessed on all live animals and perishable items (e.g., fruit, meat) entered at retail and commercial rates for *Priority Mail Express*, *Priority Mail*, and *USPS Ground Advantage*. The fee is nonrefundable once the item is entered into the network.

52 Animals

521 General Requirements

The full cooperation of the mailer is essential to safely and effectively transport animals through the mail. The following considerations apply to all shipments of mailable live or dead animals:

a. **Employee and Public Safety:** Protection of Postal Service employees and the public against harm from dangerous or diseased animals.

b. **Mail and Environmental Protection:** Protection against:

(1) **Container Damage:** Damage to the shipping container or other mailpieces from either the animal or the refrigerant used (e.g., moisture or condensation from melting ice, or pressure build-up from dry ice).

(2) **Obnoxious odors and noise.**

c. **Animal Welfare and Specimen Integrity:** The following items must be considered to protect live animals against death or animal specimens against spoilage:

(1) **Time:** Expected time in transit.

(2) **Temperature:** Expected temperature in transit (weather conditions).

(3) **Packaging:** Including insulation against impact, heat, cold, and preventing suffocation.

d. **Ability to Survive Without Food:** Live animals must be transported without food or water because liquids, moisture, and loose foodstuffs can cause damage to the shipping container, other mail, and Postal Service equipment during transport.

e. **Coordination with Postal Service Transportation and Delivery Service:** Mailers are urged to provide postmasters advanced notification of shipments of live animals. The Postal Service advises destination and transfer offices when any significant quantities of animals are moving in the mail. Postal Service field personnel should consider a 4-hour time limit on the period during which animals (especially bees, day-old poultry, and adult birds) may move in a regular, closed Postal Service vehicle.

522 Packaging and Markings

522.1 Container Construction

Containers used to mail perishable matter must be constructed to protect and securely contain the contents.

Shipping containers for mailable live animals must, at a minimum, be made of 275-pound test, double-wall, corrugated, weather-resistant fiberboard (W5c) or equivalent. USPS-produced packaging, including Flat Rate containers, is not eligible for use. Additional container requirements apply to mailable adult birds (refer to 526.4).

522.2 Security and Ventilation

Containers must be constructed to prevent animal escape, withstand normal handling without crushing, and provide adequate ventilation for the animals at all times.

522.3 Marking

Each mailpiece must display a complete return address and be marked on the address side with a description of the contents (e.g., "Live Animals," "Live Honeybees"). Mailpieces marked with "If Undeliverable, Abandon" are not eligible for mailing.

523 Acceptance for Mailing

Mailpieces containing live animals that cannot reach its destination in a viable condition should not be accepted. Considerations for assessing viability include: those listed in 521.

This provision does not give Postal Service personnel the authority to refuse mailable animals that are properly packaged or to impose local black-out periods based on temperature conditions, heavy mail volumes, or similar conditions.

Acceptance personnel must have reasonable justification to refuse a mailpiece containing mailable animals. Before refusing such a mailpiece, acceptance personnel should consult with the manager, business mail entry at their district office, or with the Pricing and Classification Service Center (PCSC), as appropriate.

Animals mailed outside the continental United States to destinations such as Hawaii, the Republic of Palau, the Republic of the Marshall Islands, and the Federated States of Micronesia may require a permit issued by the government of the destination (refer to the applicable Department of Agriculture and 641).

524 Disposal

Any mailpiece containing live animals that cannot be delivered to the addressee or returned to the sender within 72 hours (for live, day-old poultry) or within the delivery period marked on the package (for other mailable animals) must be disposed of immediately. For safety reasons, mailpieces not marked with a delivery period must be sold or disposed of when it reasonably appears the animals cannot be delivered or returned in viable condition. The addressee or postal employees cannot purchase any such items. The postmaster must send proceeds from the sale, less 25 percent commission (but not less than 1 dollar) and the proper money order fee and postage to the mailer by postal money order with an explanation on PS Form 3820, Sale or Destruction of Perishable Mail and the action taken. Retain a copy of the PS Form 3820 in the office financial paperwork. Contact local waste management or health department personnel for guidance on specific requirements or restrictions for animals that have perished.

For complete disposal information, refer to the Postal Operations Manual (POM) 691.52. For the disposition of mailpieces that are refused by air carriers, refer to 712.

525 Nonmailable Live Animals

Nonmailable types of animals discovered in the mailstream must be reported to the PCSC in accordance with the instructions in POM 139.118.

Additionally, the mailer and the Post Office of mailing must be notified to prevent future shipments from being incorrectly accepted for mailing.

525.1 Live Birds

Day-old poultry vaccinated with Newcastle disease (live virus) is nonmailable. Day-old birds, except those specifically permitted under 526.3, are nonmailable.

525.2 Live, Warm-Blooded Animals

Warm-blooded animals, except for adult birds and specified day-old birds under the specific conditions in this section, are not mailable.

Nonmailable warm-blooded animals include:

a. Cats or kittens.
b. Dogs or puppies.
c. Guinea pigs.
d. Hamsters.
e. Mice.
f. Rabbits.
g. Rats.
h. Squirrels and flying squirrels.

525.3 Reptiles

All snakes, turtles, and poisonous reptiles are nonmailable.

525.4 Poisonous Insects and Spiders

All poisonous insects and all spiders are nonmailable, except for scorpions under limited circumstances (refer to 526.5). Other nonpoisonous and non-disease-conveying insects are permitted as stated in Exhibit 526.6.

526 Mailable Live Animals

526.1 General

Certain animals are mailable under specified conditions. Refer to the following sections for detailed instructions:

a. **Live Bees**: 526.2 and Exhibit 526.21.
b. **Live, Day-Old Poultry:** 526.3 and Exhibit 526.33.
c. **Live Adult Birds:** 526.4.
d. **Live Scorpions (Under Limited Circumstances):** 526.5 and Exhibit 526.5.

e. **Other Small, Harmless, Cold-Blooded Animals:** 526.6 and Exhibit 526.6.

Note: Regarding dead animals or parts of animals, refer to 527 and Exhibit 527.

526.2 Live Bees

526.21 Mailability Requirements

Honeybees and queen honeybees must be free of disease, as required under federal and state regulations. The following additional conditions apply:

a. **Honeybees:** Acceptable to mail only via surface transportation (except for queen honeybees; refer to b.). Mailpieces must be plainly marked on the address side with "Live Bees" and "Surface Only" or "Surface Mail Only."

b. **Queen Honeybees:** May be shipped via air or surface transportation. Each mailpiece shipped via air transportation is limited to one queen and eight or less attendant honeybees. All mailpieces containing queen honeybees must be plainly marked on the address side with "Live Queen Bees."

Refer to Exhibit 526.21 for a general summary of the requirements for mailing live bees.

Exhibit 526.21
Requirements for Mailing Live Bees

Live Bees	
	Contents must be either queen honeybees or honeybees. Bees must be securely packaged (refer to 522) to provide adequate air and they must be kept within a tolerable temperature range at 40° to 100° F. The use of insecticides must be eliminated in Postal Service areas that will be occupied by bee shipments.
Air Transportation	**Surface Transportation**
■ Only queen honeybees may be shipped by air transportation. ■ Each queen honeybee may be accompanied by up to eight attendant honeybees. ■ Alert personnel to ensure the queen honeybees' timely and safe dispatch to, and arrival at, the destination. ■ Equipment must be available for transportation up to the 4th zone. Advance arrangements must be made for shipment to addresses beyond the 4th zone.	■ Any type of live honeybees may be shipped in the continental United States by surface transportation. ■ Alert personnel to ensure the honeybees' timely and safe dispatch to, and arrival at, the destination. ■ Equipment must be available for transportation up to the 4th zone. Advance arrangement must be made for shipment beyond the 4th zone.

526.22 Claims for Bee Shipments

Indemnity claims (refer to the *Domestic Mail Manual* (DMM) 609) for damage, partial loss, and loss of insured shipments of mailable bees are accepted only in the following situations:

a. **Death of Bees:** Resulting from Postal Service handling provided mailability conditions were met and the shipment was likely safe for transport.

b. **Loss of Bees:** Resulting from damage to the container while in Postal Service custody.

c. **Package Loss:** The complete package was lost in the mail.

526.3 Live, Day-Old Poultry

526.31 General

The following types of live, day-old poultry are acceptable for mailing when properly packaged:

a. Chickens.

b. Ducks.

c. Emus.

d. Geese.

e. Guinea birds.

f. Partridges.

g. Pheasants (only during April through August).

h. Quail.

i. Turkeys.

All other types of live, day-old poultry are nonmailable. Day-old poultry vaccinated with Newcastle disease (live virus) also is nonmailable.

526.32 Mailability Requirements

The types of day-old poultry specified in 526.31 are mailable under the following conditions:

a. **Age:** Poultry must be no more than 24 hours old.

b. **Hatching Information:** The box must include on the address side of the mailpiece (see 221.1) information specifying the poultry hatching date and hour, provided by a representative of the hatchery with direct knowledge of this information. The Postal Service recommends that the text "*Delivery is expected within 72 hours of hatching*" also be included. In addition, the following apply:

(1) All markings must be on the address side of the mailpiece (see 221.1).

(2) For Collect on Delivery (COD) shipments made by a hatchery for the account of others, the following must be prominently displayed:

(a) Name or initials of the hatchery; and

(b) Address of the hatchery, or the Post Office box number and address of the hatchery.

c. **Container Requirements:** Poultry must be presented for mailing in the original, unopened hatchery box from the hatchery of origin. The box must have proper ventilation, construction, and strength to bear safe transport in the mail, and not stacked more than 10 units high.

d. **Mailing Schedule:** Day-old poultry must be mailed early enough in the week to avoid a delivery date that falls on a Sunday, a national holiday, or the afternoon before a Sunday or national holiday.

e. **Delivery Timeframe:** Day-old poultry may be delivered to the addressee within 72 hours of the time of hatching.

f. **Air Transportation Compliance:** Day-old poultry sent via air transportation must meet all provisions of the airlines. Delivery is contingent on air carriers having appropriate equipment to safely deliver the poultry within the specified time limit.

g. **Commercial Air Shipments:** Day-old poultry that is first shipped via commercial air express or air cargo service and then presented for mailing to a final destination must be in good condition and properly packaged as specified in 526.32(a-e).

h. **Bundled Boxes:** Boxes of day-old poultry of about identical size, securely fastened together to prevent separation during transit, may be accepted for mailing as a single package, provided the combined length and girth comply with Postal Service limits (refer to DMM 201.7).

Refer to Exhibit 526.33, Refer to Chapter 7 regarding domestic mail shipments sent via air transportation.

526.33 Claims for Live, Day-Old Poultry

Indemnity claims (refer to DMM 609) for damage, partial loss, and loss of insured shipments of mailable, live, day-old poultry are accepted only in the following situations:

a. **Death of Poultry:** Resulting from Postal Service handling, provided mailability conditions were met and the shipment was likely safe for transport.

b. **Loss of Poultry:** Resulting from damage to the container while in Postal Service custody.

c. **Package Loss:** The complete package was lost in the mail.

Exhibit 526.33
Requirements for Mailing Live, Day-Old Poultry

REQUIREMENT		YES	NO
1.	Live, day-old poultry is a mailable type, as listed in 526.31	If pheasants, they are mailable only during April through August. See No. 2.	If not day-old poultry, item is not acceptable for mailing. If not poultry or not day-old, check other mailable animal types in Section 52 to determine mailability.
2.	Hatching time was within last 24 hours.	See No. 3.	Not acceptable for mailing.
3.	Poultry was presented for mailing in original, unopened hatchery box from hatchery of origin	See No. 4.	Not acceptable for mailing.
4.	Boxes are properly ventilated and of proper construction and strength to bear safe transport in mail (refer to 526.32(h)).	Boxes are not to be stacked more than 10 units high. See No. 5.	Not acceptable for mailing.
5.	The date and hour of hatching are noted on box by representative of hatchery who has personal knowledge of facts.	See No. 6.	Not acceptable for mailing.
6.	The shipment originated at another office, or it was sent by air express or air cargo and then presented for mailing.	Before accepting, take special precautions to ensure that shipment is in excellent condition. See No. 7.	See No. 7.
7.	All conditions for using COD service (as required in DMM 503.9) have been met. If not COD, see No. 8.	See No. 8.	Not acceptable for mailing.
8.	Poultry is being mailed sufficiently early in week to avoid arrival at the delivery post office on Sunday or holiday, or on afternoon preceding Sunday or holiday.	See No. 9.	Not acceptable for mailing.
9.	Poultry can be delivered to addressee within 72 hours of hatching	Acceptable for mailing.	Not acceptable for mailing.

526.4 Adult Birds

526.41 General

Domestic mailings of disease-free adult birds are permissible when in compliance with all applicable governmental laws and regulations, including the Lacey Act, the Endangered Species Act (ESA), the Animal Welfare Act, regulations of the U.S. Department of Agriculture, U.S. Fish and Wildlife Service, and any state, municipal, or local ordinances. Mailings must also comply with the requirements provided in Publication 14, *Prohibitions and Restrictions on Mailing Animals, Plants, and Related Matter*, Chapter 5.

Each container or package must be marked as required by U.S. Fish and Wildlife Service under 50 CFR § 14. Adult birds must be properly packaged and capable of sustaining shipment without food or water because liquids, moisture, and loose foodstuffs can cause damage to the shipping container, other mail, and Postal Service equipment during transport.

526.42 Mailability Requirements

Adult birds are mailable only under the following conditions:

a. **Service Requirement:** The shipment is mailed using Priority Mail Express service.

b. **Weight Limit:** Each bird must weigh more than 6 ounces and no more than 25 pounds.

c. **Container Capacity:** The number of birds per package must adhere to the container manufacturer's specifications.

d. **Approved Containers:** Mailers must use containers that have been pre-approved by the director, Product Classification.

e. **Unapproved Containers:** If unable to secure a pre-approved container, the mailer must submit the proposed container for approval to the director, Product Classification (refer to 214 for contact information). Submissions must include valid written evidence of the proposed container having passed a 3-day challenge test conducted by a competent authority with a full container of live birds. The test must satisfy the following criteria:

(1) **Health and Treatment:** Confining live birds in the container must neither endanger the health of the birds nor subject them to inhumane treatment.

(2) **Temperature Resilience:** Birds must withstand extended periods at temperatures as high as 99° F and as low as 0° F, experiencing no greater physiological stress than in containers with conventional ventilation.

(3) **Stress Reduction:** The container must be designed to minimize light and visual stimuli to reduce the birds' awareness of movement or the presence of humans or other animals, thereby reducing the birds' psychological stress.

f. **Packaging Instruction:** Requirements in *Packaging Instruction 10D* of Appendix C must be followed.

526.43 Claims for Adult Birds

Indemnity may be paid only for articles that are lost, damaged, or for missing contents, and not for death of the birds in transit if there is no visible damage to the mailing container.

The Postal Service will not refund postage if the *Priority Mail Express* shipment was delivered, or delivery was attempted, within 3 days of the date of mailing shown in the "Date In" box on Label 11. Refer to DMM 604.9.5.5.

526.5 Live Scorpions

The mailing of scorpions is limited by the restrictions in Title 18 United States Code (U.S.C.) § 1716.

Under this limitation, scorpions are mailable only when sent for the purposes of medical research or the manufacturing of antivenin. Scorpions are nonmailable under any other circumstances.

Refer to Exhibit 526.5 for mailing conditions that apply to permissible shipments.

Exhibit 526.5
Restrictions on Mailing Live Scorpions

Live scorpions are mailable only if ALL following conditions met:	
1.	Must be for delivery only within the continental United States.
2.	May be sent only by surface transportation.
3.	Must be sent only for special purposes of either: ■ Medical research use. ■ Manufacture of antivenin.
4.	Must be properly packaged prior to mailing, as follows: ■ Live scorpions are packed in a double container system, with each receptacle closed or fastened in such a way as to prevent escape. ■ Inner receptacle is made of material that cannot be punctured by a scorpion. ■ Inner receptacle is marked "Live Scorpions." ■ Cushioning material is used to prevent shifting of the inner receptacle. ■ Design of packaging is of sufficient strength, as required in 522, to prevent crushing of the mailpiece or escape of the contents during normal Postal Service handling and transport. ■ Address side of mailpiece is clearly marked "Live Scorpions."

526.6 Small, Harmless, Cold-Blooded Animals

Small, harmless, cold-blooded animals, except for snakes, turtles, and turtle eggs, are mailable only when they meet requirements specified in Exhibit 526.6.

Exhibit 526.6
Requirements for Mailing Small, Harmless, Cold-Blooded Animals (Except Snakes, Turtles, and Turtle Eggs)

General Requirements:	
All animals in this group: ■ Must be able to reach their destination in good condition in the normal transit time between the mailing and address points. ■ Must not require any food, water (except for fish), or attention during transport. ■ Must not create sanitary problems. ■ Must not create obnoxious odors.	
Specific Requirements by Animal:	
Baby Alligators Baby Caimans Chameleons Frogs Lizards Newts Reptiles and Amphibians Salamanders Tadpoles and Toads	■ Animals must not exceed 20 inches in length. ■ No additional requirements, except the applicable standards in section 52. ■ Packaging must comply with 522.
Specific Requirements by Animal:	
Goldfish Tropical Fish	■ Fish must be held in a securely sealed primary receptacle. ■ Primary receptacle must be cushioned with sufficient absorbent material to take up all liquid in case of leakage. ■ Primary receptacle and absorbent cushioning material must be sealed within waterproof outer (shipping) packaging.
Worms Bloodworms Hellgrammites Leeches Mealworms Snails	■ No additional requirements, except the applicable standards in section 52. ■ Packaging must comply with 522.
Nonpoisonous Insects	■ No additional requirements, except the applicable standards in section 52. ■ Packaging must comply with 522.

527 Dead Animals or Parts of Animals

Dead animals or parts of animals, including wild animals, wild birds, or eggs may be acceptable for mailing if they meet the following conditions:

a. **Lawful Origin:** The animals or parts must be lawfully killed or taken, and their shipment must comply with all applicable laws of the United States as well as those of the state, territory, district, or foreign country or subdivision thereof where they were killed, taken, or offered for shipment.

b. **Fresh Game:** Mailing of fresh game is subject to the same standards. Dead animals or parts of animals are categorized into two groups based on handling requirements:

(1) **Group A:** Items requiring refrigeration.

(2) **Group B:** Items that must be dried.

Refer to Exhibit 527 for additional information on the conditions for mailing.

Exhibit 527
Requirements for Mailing Dead Animals or Parts of Animals

GROUP A: Items that need to be refrigerated	
Game birds, fish, or other animals to be used for food. Animals or animal parts to be used in conservation studies or to be preserved by taxidermy.	Mailable only when: ■ Overall requirements for animals (refer to 521) are met. ■ A proper refrigerant is used as follows: a. Water ice: When water ice is used as a refrigerant, it must be packed like a liquid in a sealed, waterproof primary receptacle. The primary receptacle must be surrounded by absorbent cushioning material in a quantity sufficient to take up all water in the event of leakage. The primary receptacle and cushioning material must be securely packed within an outer (shipping) packaging. b. Dry ice: When dry ice is used, it must be packaged as required in 349.23. It must NEVER be placed in a sealed container. In addition, sufficient cushioning material must be used so that an inner container will not become loose inside the shipping container as the dry ice sublimates. ■ Salt: The use of salt to retard spoilage can be effective. ■ The mailpiece is properly addressed and marked as required under 221 and DMM 102.
GROUP B: Items that must be dried	
Dried furs, hides, skins, or pelts of wild animals.	Mailable only when such articles: ■ Are properly dried or cured. ■ Have no offensive odor. ■ Are plainly marked and/or labeled on the address side with the full names and addresses of shipper and addressee, together with such endorsement(s) as may be required by state laws. ■ Are securely packaged and/or wrapped to prevent harm to Postal Service employees and damage to the package contents or postal equipment.

53 Fresh Foods and Other Perishables

Fresh fruits and vegetables are nonmailable unless presented in a dry (not *dried*) condition. Other perishable foods that decompose easily or cannot reach their destination without spoiling are nonmailable. Packaging must meet the requirements in DMM sections 601.1-6.

54 Eggs

Eggs are mailable in domestic mail when the following conditions are met:

a. **Cushioning:** Each egg is individually cushioned.

b. **Packaging:** Eggs are packed to withstand shocks encountered during normal Postal Service handling.

c. **Temperature Tolerance:** Anticipated temperature changes while in Postal Service custody are not likely to affect eggs.

55 Meats and Meat Products

Meats and meat products are mailable in domestic mail only when compliant with U.S. Department of Agriculture (USDA) regulations. Packaging must comply with strength and sealing requirements in DMM 601.1-7.

If dry ice is used to maintain temperature during transport, its use must adhere to mailing conditions specified in 349.3.

56 Plants

561 General

Plants and plant products are mailable within the United States, its territories, and possessions, but are subject to certain prohibitions and restrictions imposed by federal agricultural and conservation statutes. Plants are nonmailable when these prohibitions and restrictions render the shipment of any plant or plant product unlawful. Additional information is available in Publication 14, *Prohibitions and Restrictions on Mailing Animals, Plants, and Related Matter*.

562 Quarantines

Under 39 U.S.C. § 3014(b), any plant, plant product, or other article capable of carrying a dangerous plant disease or insect infestation is nonmailable from a quarantined area, if shipping such an item is prohibited by the U.S. Department of Agriculture (USDA) Plant Protection Act issued under 7 U.S.C. § 7701. The USDA imposes such quarantines on specific plants to prevent the introduction of agricultural diseases or pests into the United States and to prevent their spread from one part of the United States to another.

Refer to Publication 14, *Prohibitions and Restrictions on Mailing Plants, Animals, and Related Matter* for more information about quarantines.

USDA quarantine notices, issued under 7 U.S.C. § 7701, are published in the *Federal Register* and codified in the Code of Federal Regulations Title 7 Sections 301 and 318 (7 CFR § 301 and 318). Details on these and other USDA regulations may be obtained by writing to the USDA Animal and Plant Health Inspection Service (APHIS) Plant Protection and Quarantine (PPQ) Programs (refer to 564 for contact information).

562.1 Types of Quarantines

There are domestic quarantines that apply to the continental United States; other quarantines that apply to Hawaii, Puerto Rico, and the U.S. Virgin Islands; and others that apply to other territories and possessions.

562.2 Specific Information

Plant quarantines cover a great variety of plant diseases and pests, and all areas of the country. For more specific information, consult Publication 14, *Prohibitions and Restrictions on Mailing Animals, Plants, and Related Matter*.

562.3 Inspection

Plants under quarantine by the USDA may be moved from the quarantine area only after being inspected under conditions prescribed in the quarantine notice or in other USDA regulations, issued under 7 U.S.C. § 7701, and after a permit or certificate is issued. Refer to the *Administrative Support Manual* (ASM) 274.9 regarding USDA inspection of mail.

562.4 Penalties

562.41 Nonmailable Items

Any plant or plant matter prohibited under the Act of August 20, 1912

(37 Stat. 315, Chapter 308; 7 U.S.C. § 151 et seq.), commonly known as the Plant Protection Act, is made nonmailable by 39 U.S.C. § 3015.

Criminal penalties of fine and imprisonment are incurred for knowingly mailing or causing the delivery of nonmailable items under:

a. **18 U.S.C. § 1716B:** Applies to violations of 39 U.S.C. § 3014(b) and implementing regulations under 39 U.S.C. § 3014(c).

b. **18 U.S.C. § 1716D:** Applies to violations of 39 U.S.C. § 3015(c).

562.42 Forged or Counterfeit Documents

Similar criminal penalties of fine and imprisonment are provided by 18 U.S.C. § 1716C as follows:

a. **Forgery:** Forging or counterfeiting any certification authorized by USDA regulations with intent to make such certification appear genuine.

b. **Use of Possession:** Knowingly using, selling, or possessing a forged or counterfeited certification or any device intended for imprinting a forged or counterfeited certification.

563 Packaging and Marking

563.1 General

Wettable packing materials and roots or butts of plants must be wrapped or boxed in a waterproof material. The material must retain sufficient moisture for the plant's roots without weakening the structural integrity of the box and must be able to withstand Postal Service handling without leakage or loss of the packing material or contents. Acceptable waterproof materials include:

a. Tar-centered paper.

b. Kraft paper waxed on one side.

c. Kraft paper with a waxed or tarred paper liner.

d. Plastic wrap.

563.2 Securing Tops of Bundles

The tops of plant bundles require a protective covering made of paper, straw, or similar material to protect the plant from injury or drying out. If the plant has thorns or pointed projections, the wrapper must be puncture-proof.

564 Further Information

For further information about specific plants or diseases, or about requirements for international shipments, consult the local county agriculture agent or the following federal agency:

Animal and Plant Health Inspection Service
US Department of Agriculture
4700 River Rd
Riverdale, MD 20737-1228

57 Nonmailable Plant Pests, Injurious Animals, and Illegally Taken Fish or Wildlife

571 General

Under the respective provisions in 39 U.S.C. § 3015(a), (b), or (d), the following items are nonmailable:

a. **Injurious Animals:** The importation or interstate shipment of which is prohibited under 18 U.S.C. § 42.

b. **Plant Pests:** The movement of which is prohibited under section 103 or 104 of the Federal Plant Pest Act (7 U.S.C. § 150bb or 150cc).

c. **Fish or Wildlife:** The conveyance of which is prohibited under section 3 of the Lacey Act Amendments of 1981 (16 U.S.C. § 3372).

For more information, refer to Publication 14, *Prohibitions and Restrictions on Mailing Animals, Plants, and Related Matter.*

572 Criminal Penalties

Criminal penalties are specified in 18 U.S.C. § 1716d for mailing anything that is nonmailable under 39 U.S.C. § 3015(a), (b), or (d).

6 International Mail

61 General

This chapter outlines regulations governing the mailability of dangerous goods, restricted matter, and perishable matter that may be sent as international mail. Additional information on these subjects is contained in Chapters 3, 4, and 5, and in the I*nternational Mail Manual* (IMM) 135-138. Refer to, also, the Individual Country Listings (ICL) for any additional country conditions for mailing.

611 APO/FPO/DPO Mail

Hazardous, restricted, or perishable materials mailed to, from, and between overseas Army Post Offices, Fleet Post Offices, and Diplomatic Post Offices (APO/FPO/DPO) are subject to the conditions of IMM 130, the standards in this publication, conditions prescribed by the Department of State international security policy, and conditions prescribed by the Department of Defense (DOD), as listed in *Overseas Military/Diplomatic Mail* in the *Postal Bulletin*. Also refer to the *Domestic Mail Manual* (DMM) 703.2-4.

612 U.S. Possessions, Territories, and Freely Associated States

Packages containing dangerous goods going to destinations outside the customs territory of the United States must follow international regulations for package content and are subject to the same customs clearance procedures required for international mail. The customs territory of the United States includes all 50 states, the District of Columbia (D.C.), and the Commonwealth of Puerto Rico. Therefore, shipments to U.S. Possessions, Territories, and Freely Associated States must follow the guidelines in 622 for mailable dangerous goods.

62 Dangerous Goods: International Mail

621 General Requirements

In international commerce, hazardous materials are referred to as "dangerous goods."Almost all dangerous materials are prohibited in international mail. The only mailable dangerous materials are the following:

a. Certain infectious substances;

b. Excepted quantities of radioactive material that are allowed in domestic mail;

c. Certain magnetized materials; and

d. Certain lithium and lithium-ion batteries.

Exhibit 621.0 provides a summary of the types of dangerous materials that are eligible for mailing in international mail.

The few types of dangerous materials that are generally permitted in international mail may be further restricted by the mailing limitations imposed by an individual country. Because individual countries have unique prohibitions and restrictions, it is always necessary to consult the ICL in the IMM to be certain that an otherwise mailable dangerous material is acceptable for shipment to a specific country.

Exhibit 621.0
DOT Hazard Classes and Mailability for International Mail

Hazard Class	Name of Hazard Class (and Division when applicable)	International Mail APO/FPO/DPO	
		Air Transportation	Surface Transportation
1	Explosives	Prohibited	Prohibited
2	Gases	Prohibited	Prohibited
3	Flammable and Combustible Liquids	Prohibited	Prohibited
4	Flammable Solids	Prohibited	Prohibited
5	Oxidizing Substances, Organic Peroxides	Prohibited	Prohibited
6	Division 6.1: Toxic Substances	Prohibited	Prohibited
	Division 6.2: Infectious Substances	Mailable per limits in 622.2 and IMM 135.1.	Prohibited
7	Radioactive Materials	Mailable per limits in 622.3 and IMM 135.5.	Prohibited
8	Corrosives (liquids and solids)	Prohibited	Prohibited
9	Miscellaneous Hazardous Materials	Prohibited, except for magnetized materials per 622.4 and lithium batteries per 622.5.	Prohibited, except for magnetized materials per 622.4 and lithium batteries per 622.5

621.1 Outer Packaging Requirements

Except as otherwise specified, rigid outer packaging must be used for shipments containing dangerous goods following the instructions in 339.4.

621.2 Hazard Classes

The nine classes of hazardous materials listed in 331 also apply to dangerous goods shipped in international commerce.

The non-Postal Service regulations that govern the air shipment of dangerous goods in international commerce are specified in the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organization (ICAO). In Title 49 *Code of Federal Regulations* (CFR), Department of Transportation (DOT) recognizes ICAO requirements for the air transportation of dangerous materials. However, 49 CFR gives DOT the authority to regulate only the domestic transportation of

dangerous materials. Generally, most air carriers follow the *Dangerous Goods Regulations* of the International Air Transport Association (IATA), which are slightly more restrictive than ICAO rules.

621.3 Limited Quantity

The Limited Quantity category is unique within domestic commerce and is not recognized in international commerce. Dangerous materials under this classification that are mailable in domestic mail are typically prohibited in international mail.

621.4 Extra Service Codes and Shipping Service Files

Mailers shipping dangerous goods internationally, including to APO/FPO/DPO and U.S. Possessions, Territories, and Freely Associated States destinations utilizing *PC Postage* or *USPS Ship* platforms, must include Extra Service Code (ESC) 857 and incorporate the applicable content- specific ESC listed in Appendix G and Publication 199. A Shipping Services File (SSF) using Version 1.7 or higher, or Shipping Partner Event File (SPEF) using Version 5.0 or higher, must be transmitted to the Postal Service before, or concurrent with, tendering dangerous-goods shipments.

622 Mailable Dangerous Goods

622.1 General

As shown in Exhibit 621.0, almost all dangerous goods are prohibited in international mail. Under specific circumstances, only biological substances, limited amounts of radioactive materials, certain magnetized materials, and lithium batteries installed in the equipment they intend to operate are eligible to be sent in international mail.

622.2 Biological Substances (Division 6.2)

Biological substances that comply with domestic requirements are permitted in international mail with the following additional conditions:

a. **Country Conditions:** Certain countries prohibit or restrict biological substances. Refer to the IMM for specific details.

b. **Authorization:** Biological substances may only be sent to or received by eligible institutions, provided they have obtained prior permission. Qualifying institutions wishing to mail biological substances must submit a written application on its organizational letterhead to the director, Product Classification (refer to 214 for contact information). The application must state the institution's nature of work, the identity and qualifications of the prospective recipient, and the number of packages to be mailed.

c. Eligible institutions:

(1) Laboratories of local, state, and federal government agencies.

(2) Laboratories of federally licensed manufacturers of biological products derived from bacteria and viruses.

(3) Laboratories affiliated with or operated by hospitals, universities, research facilities, and other teaching institutions.

(4) Private laboratories licensed, certified, recognized, or approved by a public authority.

d. **Mailability and Packaging Requirements:** Mailable infectious substances must be prepared according to 346.321 and *Packaging Instruction 6C*.

e. **Volume and Packaging Limits:** Mailable infectious substances are limited to 50 milliliters for liquids or 50 grams for solids per mailpiece. Packaging must comply with 346.321 and Packaging Instruction 6C in Appendix C, and the requirements in IMM 135.31 and 135.41.

f. **Nonregulated and Exempt Specimens:** Nonregulated materials defined in 346.325 and exempt human or animal specimens defined in 346.12d are mailable between eligible institutions (see item c.) when properly packaged in accordance with Packaging Instructions 6G and 6H in Appendix C and comply with 346.325 through 346.327 and IMM 135.42.

622.3 Radioactive Materials (Class 7)

Class 7 radioactive materials are permitted in international mail subject to the limits in 347 and the following conditions:

a. **Country Conditions:** Certain countries prohibit or restrict radioactive materials. Refer to the ICL in the IMM for specific details.

b. **Mailability and Packaging Requirements:** Mailable radioactive materials must be packaged in accordance with *Packaging Instruction 7A* in Appendix C and the requirements specified in IMM 135.5.

c. **Activity Limits:** Mailable radioactive materials may not have an activity content that exceeds one-tenth of the limits in Exhibit 347.23.

d. **Regulatory Compliance:** Each shipment must comply with the International Atomic Energy Agency (IAEA) Regulations, the specifications contained in 347, and this section.

e. **Authorization:** The sender and recipient of each radioactive materials shipment must receive prior authorization from the appropriate regulatory authorities within their countries.

f. **Labeling and Marking:** The sender is responsible for supplying and affixing the following information to the address side of the package:

(1) Radioactive Materials, Quantities Permitted for Movement by Post."

(2) "Return to Sender in Case of Nondelivery."

(3) A white package label with the French text "Matières Radioactives."

g. **Shipping Documentation:** Shipping documentation is required (refer to 326 and 711.3).

622.4 Magnetized Materials

Magnetized materials, as defined in 349.4, are prohibited in international mail except for those that cannot cause a compass deviation at a distance of 7 feet or more. Mailable magnetized materials must be prepared for mailing following *Packaging Instruction 9B* in Appendix C.

622.5 Lithium Cells and Batteries — General

Lithium batteries under 622.51 and 622.52 that are properly installed in the equipment they operate may be sent internationally or to, from, or between APO, FPO, or DPO locations (subject to the conditions prescribed by the U.S. Department of Defense listed in Overseas Military/Diplomatic Mail in the *Postal Bulletin*). Used, damaged, defective, or recalled lithium batteries and used, damaged, or defective electronic devices (excluding devices that are new in original packaging, and manufacturer-certified new or refurbished devices) containing or packaged with lithium batteries are prohibited and may not be mailed internationally or to, from, or between APO, FPO, or DPO locations under any circumstances. Refer to 349.6.

Mailable Lithium batteries must be prepared for mailing following *Packaging Instruction 9E* in Appendix C.

Additional restrictions include:

a. **Battery:** Batteries must be installed in the equipment being shipped.

b. **Outer Packaging:** Equipment must be cushioned to prevent movement or damage and packed in rigid outer packaging, sealed and strong enough to prevent crushing of the package or exposure of the contents during normal handling in the mail.

c. **Consignment**: A lithium battery consignment, as defined in 349.21(b), is limited to a maximum of two mailpieces for all international and APO/FPO/DPO mailings.

d. **Quantity Limits:** Each shipment may contain a maximum of four lithium cells or two lithium batteries.

e. **Damage Protection:** Batteries installed in equipment must be protected from damage and short circuit.

f. **Inadvertent Activation Prevention:** Equipment must have effective means to prevent accidental activation.

g. **Marking or Labeling:** Mailpieces must not display markings or labels identifying the contents as lithium batteries.

622.51 Lithium Metal (Non-Rechargeable) Cells and Batteries

Small consumer-type lithium metal cells or batteries, such as those used to power cameras or flashlights, are mailable in a single shipment under the following conditions:

a. **Lithium Content (Cell):** Each cell must not exceed 1 g of lithium content.

b. **Lithium Content (Battery):** Each battery must not exceed 2 g of total lithium content.

622.52 Lithium-ion (Rechargeable) Cells and Batteries

Small consumer-type lithium-ion cells and batteries, such as those used to power cell phones and laptop computers, are mailable in a single shipment under the following conditions:

a. **Watt-Hour Rating (Cell):** Each cell must not exceed 20 Wh.

b. **Watt-Hour Rating (Battery):** Each battery must not exceed 100 Wh.

c. **Battery Rating Mark:** Each battery and cell must be marked with its Watt-hour rating to confirm it is compliant with limits in items a. and b. (above).

622.53 Very Small Lithium Metal and Lithium-ion Cells and Batteries

Shipment containing very small lithium batteries installed in the equipment they operate (including circuit boards) are mailable internationally under the following conditions:

a. **Lithium Content:** Each lithium metal cell/battery must not exceed 0.3 g of lithium content.

b. **Watt-Hour Rating:** Each lithium-ion cell/battery must not exceed 2.7 Wh.

Exhibit 622.53
International Lithium Battery Mailability

	International APO/FPO/DPO[1, 2]	Mailpiece Battery Limit[3]
Lithium Metal or Lithium Alloy Batteries[4, 5]		
Small, non-rechargeable, consumer-type batteries		
Contained in (properly installed in equipment)	Mailable	Maximum of 4 cells or 2 batteries
Packed with equipment, but not installed in the equipment	Prohibited	
Without the equipment they operate (individual batteries in originally sealed packaging)	Prohibited	
Lithium-ion or Lithium Polymer Batteries[6, 7]		
Small, rechargeable, consumer-type batteries		
Contained in (properly installed in equipment)	Mailable	Maximum of 4 cells or 2 batteries
Packed with equipment, but not installed in the equipment	Prohibited	
Without the equipment they operate (individual batteries in originally sealed packaging)	Prohibited	
Very Small Lithium Metal or Lithium-ion Batteries[8, 9]		
Exception for very small consumer-type batteries in international transportation		
Contained in (properly installed in equipment)	Mailable	Maximum of 4 cells or 2 batteries
Packed with equipment, but not installed in the equipment	Prohibited	
Without the equipment they operate (individual batteries in originally sealed packaging)	Prohibited	

1. *Unless otherwise prohibited by the international destination country or specific APO/FPO/DPO ZIP Code location.*
2. *Used, damaged, defective, or recalled lithium batteries and used, damaged, or defective electronic devices containing or packaged with lithium batteries are prohibited and may not be mailed internationally or to, from or between APO, FPO, or DPO locations under any circumstances. This excludes devices that are new in original packaging, and manufacturer-certified new or refurbished devices.*
3. *When a mailpiece limitation of 4 cells or 2 batteries is applicable, a mailpiece may contain either 4 cells or 2 batteries, not both.*
4. *Each lithium metal or lithium alloy cell must not contain more than 1 g (gram) of lithium content.*
5. *Each lithium metal or lithium alloy battery must not contain more than 2 g of aggregate lithium content.*
6. *Each lithium-ion or lithium polymer cell must not exceed more than 20 Wh (watt-hour rating).*
7. *Each lithium-ion or lithium polymer battery must not exceed 100 Wh.*
8. *Each lithium metal or lithium alloy cell or battery must not exceed 0.3 g of lithium content.*
9. *Each lithium-ion or lithium polymer cell or battery must not exceed a watt-hour rating of 2.7 Wh.*

Note: Shipments containing lithium batteries are not permitted in Global Express Guaranteed mailpieces.

623 Nonmailable Dangerous Goods

The following types of dangerous goods, as defined in Chapter 3, and IMM 135–136, are prohibited in international mail:

a. Class 1: Explosives (including explosive devices) (341).

b. Class 2: Gases (342).

c. Class 3: Flammable and combustible liquids (343).

d. Class 4: Flammable solids including matches (344).

e. Class 5: Oxidizing substances and organic peroxides (345).

f. Class 6: Division 6.1, toxic substances (including irritants) (346).

g. Class 6: Division 6.2, infectious substances (346), except as permitted in 622.2.

h. Class 7: Radioactive materials (347), except as permitted in 622.3.

i. Class 8: Corrosives (348).

j. Class 9: Miscellaneous hazardous materials (349), except as permitted in 622.4 and 622.5.

k. Dry ice (carbon dioxide solid) (349.3).

l. Magnetized materials capable of causing a compass deviation at a distance of 7 feet or more (349.4).

m. All damaged, defective, or recalled lithium batteries (349.6).

n. All used, damaged, or defective electronic devices containing or packaged with lithium batteries (see 349.6). This excludes devices that are new in original packaging, and manufacturer-certified new or refurbished devices.

63 Restricted Matter: International Mail

In international commerce, restricted matter (refer to 411) may be further restricted by the mailing limitations imposed by an individual country. Because individual countries have unique prohibitions and restrictions, it is always necessary to consult the ICL in the IMM to be certain that an otherwise mailable material is acceptable for shipment to a specific country.

631 Firearms

The requirements and prohibitions that apply to the mailing of firearms in domestic mail, as stated in Chapter 4, also apply to international mail subject to any restrictions in the ICL in the IMM. Prohibited firearms include:

a. Nonautomatic and semiautomatic rifles, carbines, revolvers, and pistols (regardless of caliber), except those of .50 caliber or less manufactured before 1898.

b. Shotguns with barrels less than 18 inches long.

c. Machine guns, submachine guns, machine pistols, and fully automatic rifles.

To obtain an export license, mailers should contact the following federal agency:

U.S Department of State
PM/DTC STE 1200 SA-1

2401 E ST NW
Washington, DC 20037-2915

Telephone: 202-663-2980

Additional licensing requirements applicable to the international mailing of arms or implements of war, component parts, and related technical data can be found in IMM 540.

631.1 Export to APOs/FPOs/DPOs

Export of firearms to certain APOs, FPOs, or DPOs is prohibited. Restrictions can be verified in the *Overseas Military/Diplomatic Mail* table, which is published in the current *Postal Bulletin*. Footnote F of this table lists the restrictions for mailing firearms. If no Footnote F restriction is assigned to the specific APO, FPO, or DPO ZIP Code, the mailer must present an export license obtained from the regional Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) office.

631.2 Armed Forces Member Imports

Under the following conditions, members of the armed forces may mail rifles or shotguns without an import permit:

a. **Permanent Change of Duty or Release from Active Duty:** Incident to a permanent change of duty or release from active duty, any member of the armed forces who has been stationed on active duty outside the United States for the preceding 60 days may, without an import permit, present up to three rifles or shotguns that are mailable to the appropriate armed forces transportation officer to be forwarded to the member's residence as unaccompanied baggage officially shipped through the mail. Firearms imported in this manner must be intended for the member's personal use.

b. **Firearms with Prior U.S. Ownership:** Firearms with proof of prior ownership in the United States are exempt from the three-firearm limitation. Members may mail these firearms back into the United States or its possessions if they can satisfactorily demonstrate prior ownership to U.S. Customs Service.

Any member of the armed forces importing firearms per items a. and b. (above) must prepare ATF Form 6A, *Release and Receipt of Imported Firearms, Ammunition, and Implements of War* (ATF Form 5330.3C) and receive the required permit under 27 CFR § 178.114. This form and permit, along with certifications to the customs officer releasing the firearms, must be furnished by the member or the member's authorized agent in compliance with 27 CFR § 178.114.

Any member of the armed forces who wishes to import more than three mailable firearms must prepare ATF Form 6 Part 2, *Application and Permit for Importation of Firearms, Ammunition, and Implements of War* (ATF Form 5330.3B), receive the required permit under 27 CFR § 178.114, and comply with Defense Transportation Regulation 4500.9-R and any other relevant military directives.

632 Inert Replica and Explosive Devices

The following types of replica or inert explosive devices are prohibited in international mail:

a. Military ordnance, ammunition, and shells.

b. Grenades.

c. Similar devices that were originally designed for military or combative use (including training).

633 Knives and Sharp Instruments

Knives and sharp instruments permitted to be mailed domestically may be mailed internationally if permitted under conditions specified in the ICL in the IMM.

634 Drugs

Drugs admissible in domestic mail (refer to Chapter 4) are also acceptable in international and APO/FPO/DPO mail, provided the destination country or military or diplomatic Post Office does not prohibit their entry.

635 Controlled Substances

Controlled substances are not permitted in international mail. Controlled substances addressed to APO/FPO/DPO destinations are subject to the prohibitions in DMM 703.2.3 or 703.3.2. Additionally, controlled substances are subject to the conditions prescribed by the Department of Defense (DOD), as listed in Overseas Military/Diplomatic Mail in the Postal Bulletin, and to all requirements that apply to domestic mail, as contained in Chapter 4.

636 Other Restricted Matter

Materials that are nonmailable domestically are also prohibited in international mail. These materials include, but are not limited to:

a. Intoxicating liquor.

b. Matter emitting obnoxious odor.

c. Motor vehicle master keys.

d. Odd-shaped items sent in letter-size envelopes.

e. Abortive and contraceptive devices.

f. Certain building construction material.

Refer to IMM 135 and 136 for other general restrictions and prohibitions, and the ICL in the IMM for specific country restrictions and prohibitions.

64 Perishable Matter: International Mail

In international commerce, perishable matter (refer to 511) may be further restricted by the mailing limitations imposed by an individual country. Because individual countries have unique prohibitions and restrictions, it is

always necessary to consult the ICL in the IMM to be certain that an otherwise mailable material is acceptable for shipment to a specific country.

641 Animals

Most live or dead animals are nonmailable in international mail. Animals mailed to the Republic of Palau, the Republic of the Marshall Islands, and the Federated States of Micronesia require a permit issued by the government of the destination country.

When permitted by the destination country, only the following types of animals are mailable:

a. Live bees, leeches, silkworms, and flies of the family Drosophilidae.

b. Thoroughly dried dead insects or reptiles.

c. Parasites and predators of injurious insects, provided they are:

(1) Permitted in domestic mail.

(2) Useful in controlling dangerous insects.

(3) Exchanged by officially recognized scientific or health agencies.

(4) Sent by First-Class Mail International service, First- Class Package International service, or Priority Mail International Flat Rate Envelopes or Small Flat Rate Priced Boxes.

(5) Securely packaged in containers conforming to the requirements for domestic mail.

642 Eggs

642.1 Fresh Eggs

Fresh eggs may be mailed in international mail via *Priority Mail International* service only as follows:

a. **Shipments to All Countries Except Canada:** Eggs must be packed as follows:

(1) Each egg must be packed in sufficient cushioning material.

(2) Eggs must be shipped in a metal egg container.

(3) The metal egg container must be enclosed in a wooden outer container with sufficient cushioning material packed between the inner and outer containers.

b. **Shipments to Canada:** Eggs must be packed as follows:

(1) Each egg must be wrapped in protective material and placed upright.

(2) Eggs must be either packed in the manner prescribed for other countries in 642.1(a) or packed in a wooden, papier-mâché, or other box of rigid material having a well-fitting, tightly adjusted lid.

(3) Vacant space in the box must be filled with packing material to prevent movement or contact between eggs or with the container.

642.2 Dried Whole Eggs

642.21 Commodity Credit Corporation Endorsement

Dried whole eggs purchased under the U.S. Department of Agriculture's (USDA) *Commodity Credit Corporation* program must include an endorsement by the exporter or authorized representative waiving any right to withdraw the package from the mail or to have it returned. The endorsement must be written or stamped on the address side of each mailpiece. These mailings may be made by *Priority Mail International* service only.

642.22 Certificate of Mailing Dried Whole Eggs

A certificate using the format shown in IMM Exhibit 553.121 (and repeated here as Exhibit 642.22) must be prepared and completed by the sender, and presented at the time of mailing. The following conditions also apply:

a. A single certificate may cover any number of mailpieces presented by the same sender and in the same mailing, even if the mailpieces are addressed to different countries.

b. A charge (refer to IMM 552) is made for each certificate or each package (if a single certificate covers more than one package).

c. Postage to cover the certificate charge must be affixed to the certificate and canceled with the postmark of the office of mailing.

d. After being postmarked, the certificate must be signed by the postmaster (or designee) and returned to the sender.

Exhibit 642.22
Certificate of Mailing Dried Whole Eggs

CERTIFICATE OF MAILING DRIED WHOLE EGGS

I hereby certify that there has (have) been posted at this Post Office facility today by (Sender), parcels containing a total of (Number) pounds of dried whole eggs on which the sender has waived the right to withdraw same from the mail or have same returned.

Parcels addressed to

_____
(Name and addresses of addressees)

_____ _____
(Office stamp) (Postmaster)
(Date)

_____
By

643 Plants

Plants, seeds, and plant materials, including fruits and vegetables, are subject to the provisions for domestic mail in Section 56, Publication 14, *Prohibitions and Restrictions on Mailing Animals, Plants, and Related Matter*, and the quarantine regulations of the country of destination. Customers can obtain information from the USDA Animal and Plant Health Inspection Service (APHIS) Plant Protection and Quarantine (PPQ) Programs at:

USDA APHIS PPQ
4700 River Rd.
Riverdale, MD 20737–1228

644 Fresh Foods and Other Perishables

Fresh meats, fruits, vegetables, and other items that decompose easily or cannot reasonably be expected to reach their destination without spoiling are nonmailable in international mail. Refer to the ICL in the IMM for specific restrictions or prohibitions.

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7 Air Transportation Requirements

71 General

This chapter contains standards on the mailability of hazardous materials, restricted matter, and perishable matter in domestic mail via air transportation - for international and Army Post Office, Fleet Post Office, and Diplomatic Post Office (APO/FPO/DPO) mail, refer to Chapter 6. Compliance with regulations governing shipping harmful matter by air transportation is essential to ensure the safety of Postal Service employees, airline passengers and personnel, aircraft equipment, and Postal Service equipment and facilities.

For the purposes of this chapter, air transportation requirements apply to all mailable hazardous materials, restricted matter, and perishable matter sent via *Priority Mail Express*, *Priority Mail*, or *First-Class Package International Service*.

711 Mailer Responsibility

711.1 General

Full responsibility rests with the mailer to comply with all Postal Service and non-Postal Service laws and regulations regarding the mailing of hazardous materials. Anyone who mails, or causes to be mailed, a nonmailable or improperly packaged hazardous material can be subject to legal penalties, including, but not limited to, those specified in Title 18 United States Code (U.S.C.).

711.2 Warning Labels and Marking Requirements

Except where noted, hazardous materials acceptable for air transportation generally fall within the consumer commodity or mailable limited quantity categories. Some air-eligible mailable hazardous materials have marking and packaging requirements that are unique to mailpieces (e.g. SP 9275, certain mailable infectious substances and medical waste, and dry ice). Department of Transportation (DOT) hazard class warning and handling labels must be displayed when applicable. The following guidelines outline the necessary markings, labels, and documentation for eligible hazard classes:

a. **Hazard Classes 2, 3, and 6.1, or Portions of 9:** Mailpieces containing air-eligible materials within these classes must display the DOT diamond-shaped marking, with a black top and bottom, a black border, and a white or contrasting background. The black symbol "Y" must be clearly visible at the center of the diamond (refer to Exhibit

325.5). Each mailpiece must also be marked with the proper shipping name ("Consumer Commodity") and identification number ("ID8000"), with an approved DOT Class 9 hazardous material warning label (refer to Exhibit 325.4(b)). A completed Shipper's Declaration for Dangerous Goods, prepared in triplicate, must be affixed to the outside of the mailpiece.

b. **Hazard Classes 5.1, 5.2, or 8:** Packages must be marked with a DOT diamond-shaped limited quantity mark with the symbol "Y" in the center. Refer to Exhibit 325.5. Each package must also be marked with the proper shipping name, identification number, and an approved DOT class 5.1, 5.2, or 8 hazardous materials warning label. Exhibit 325.4(b). A properly completed Shipper's Declaration for Dangerous Goods, prepared in triplicate, must also be affixed to the outside of the package.

c. **Marking Specifications:** Markings must be durable, legible, readily visible, and applied to at least one side or end of the outer packaging. The diamond-shaped border must be at least 2 mm in width, with a minimum side dimension of 100 mm, unless the package size necessitates a reduced marking of no less than 50 mm on each side.

711.3 Shipper's Declaration for Dangerous Goods

Most mailable hazardous materials (including consumer commodity materials or mailable limited quantity materials), when sent by air transportation, must be accompanied by a Shipper's Declaration for Dangerous Goods (refer to 326). Requirements for which mailable hazardous materials necessitate a Shipper's Declaration for Dangerous Goods when sent via air transportation can be found in Chapter 3, and the appropriate *Packaging Instruction* in Appendix C.

The Shipper's Declaration for Dangerous Goods must be properly completed, signed in triplicate by the mailer, and properly prepared, as required by 49 CFR § 172.200 through 172.205, which, in part, requires the following information:

a. Proper shipping name of material.

b. Hazard class.

c. UN or NA identification number, as applicable.

d. The quantity and type of packaging.

e. The *Packaging Instruction* used.

f. The full name, address, and telephone number of the shipper or consignee.

g. The shipper's certification statement.

Neither the Postal Service nor DOT stocks or furnishes Shipper's Declaration forms. Mailers may obtain them from commercial printers, internet-based retailers, safety supply stores, or stationery stores.

712 Refusal by Air Carrier or Pilot

Mailpieces refused by an air carrier or pilot that contain, or are suspected to contain, hazardous, restricted, or perishable materials, must be handled in accordance with the applicable instructions in this chapter.

712.1 Air Carrier Policy or Pilot's Decision

Mailpieces containing a mailable hazardous, restricted, or perishable materials may be refused by air carriers or pilots, even when they meet Postal Service mailing requirements.

Nonmailable or improperly prepared mailpieces can also be rejected by an air carrier. The following are examples of possible reasons for refusal:

a. **Authorization Restriction:** The air carrier is not authorized to carry hazardous materials under the provisions of the Federal Aviation Administration (FAA) Operator's Certificate.

b. **Corporate Policy:** The air carrier's corporate policy prohibits carrying hazardous or restricted materials.

c. **Pilot's Decision:** The pilot of an individual flight may reject mailpieces perceived as questionable or unsafe, based on Federal Air Regulations (FAR).

d. **Nonmailable Contents:** The mailpiece contains a nonmailable hazardous or restricted material that was mistakenly accepted or deposited into the mailstream.

e. **Improper Preparation:** The mailpiece is not properly packaged, marked, or labeled for air transportation.

f. **Incomplete Documentation:** The mailpiece does not include a properly completed Shipper's Declaration for Dangerous Goods.

g. **Unidentified Contents:** The mailpiece's contents are unclear but appear to contain hazardous or restricted material.

h. **Perishable Matter or Animals:** The air carrier refuses a mailable shipment of perishable matter, including live animals, due to company policy on safety or extreme temperature conditions.

712.2 Handling of Mailpieces Refused by an Air Carrier or Pilot

All mailpieces containing hazardous, restricted, or perishable materials that are refused by an air carrier or pilot must be handled as follows:

a. If the mailpiece is damaged or leaking, contact the local facilities' safety officers or designee for assistance. Procedures in the facility's Spill/ Leak Standard Operating Procedure (SOP), Management Instruction EL-810-2019-5, Response to Hazardous Materials Releases, and Handbook EL-812, *Hazardous Materials and Spill Response* must be followed.

b. An online Mailpiece Incident Report (MIR) must be completed and filed in accordance with the instructions in the *Mail Incident Report Toolkit* (*MIRT*) according to incident type. Types of incidents may include spills, leaks, or hazardous, restricted, or perishable material that has been rejected by an air carrier or pilot.

c. If the mailpiece contains nonmailable or improperly packaged hazardous or restricted material, a nonmailable or improperly packaged animal, or other perishable matter, immediately follow the reporting procedures outlined in the *Postal Operations Manual* (POM) 139.117-118 and the Hazardous Materials Program, HAZMAT SOP, as applicable. The mailer and the mailing post office of origin must be notified to prevent future issues.

d. If the mailpiece contains a mailable hazardous or restricted material that is properly packaged, labeled, and marked, attempt to contact the mailer. If the mailer can be reached, advise the mailer that the item has been refused by the air carrier and offer, as applicable, to divert to surface transportation or return to sender. If the mailer chooses to divert to surface, apply Label 127, *Surface Transportation Only*, and immediately dispatch the mailpiece to the destination via the most expeditious means of surface transportation.

e. If the mailer cannot be contacted, or if the mailer does not wish to have the mailpiece rerouted via surface transportation, or if the mailpiece cannot be rerouted via surface transportation to the delivery address, do the following:

(1) Affix Label 180, *Rejected by Air Carrier*, or endorse the address side of the mailpiece "Refused for Air Transportation by Air Carrier" and note the name of the airline, flight number, and reason for refusal.

(2) Correct the markings on the mailpiece to read "Surface Mail Only," and return the mailpiece to the sender via surface transportation (if permitted).

(3) Apply Label 127, *Surface Transportation Only*, and immediately dispatch the mailpiece to the destination via the most expeditious means of surface transportation.

(4) Provide the mailer with instructions on how to obtain a refund of the postage charges because service was not provided, and the item was determined to be mailable.

(5) Complete PS Form 2759, Report of Irregular Handling of Mail, for internal Postal Service information only, and distribute copies to the appropriate Postal Service offices. Do not send a copy to the mailer. Include the name and address of the mailer, the type and amount of hazardous material, and the reason for the air carrier's refusal.

f. If the mailpiece contains mailable animals that cannot be delivered to the addressee or returned to the sender via surface transportation within 72 hours (for live day-old poultry), or within the delivery period marked on the mailpiece (for other animals), promptly dispose of the mailpiece. Mailpieces not marked with a delivery period when it reasonably appears the articles could not be delivered or returned in a viable condition are disposed of for safety reasons. Mailpieces without a marked delivery period, or that cannot be returned in a viable condition, are disposed of or donated to a charitable institution, as appropriate. Refer to POM 691.52.

g. If the mailpiece contains a mailable animal or other article of perishable matter that appears to be viable and can be delivered within the specified delivery period, attempt to contact the mailer via information from the return address. If the mailer can be reached, advise the mailer of the available option for rerouting the mailpiece via the most expeditious means of surface transportation (if available). If the mailer agrees to divert to surface, apply Label 127, *Surface Transportation Only*, and immediately dispatch the mailpiece to the destination via the most expeditious means of surface transportation.

h. If the mailer of a mailpiece containing a mailable animal or other article of perishable matter (that appears to be in a viable condition) cannot be contacted, and the mailpiece can be returned to the sender within the specified delivery period, do the following:

(1) Affix Label 180, *Rejected by Air Carrier*, or endorse the address side of the mailpiece "Refused for Air Transportation by Air Carrier" and note the name of the airline, flight number, and reason for refusal.

(2) Apply Label 127, *Surface Transportation Only*, and immediately return the mailpiece to the sender via the most expeditious means of surface transportation.

(3) Provide the mailer with instructions on how to obtain a refund of the postage charges because service was not provided, and the item was determined to be mailable.

72 Hazardous Materials: Air Transportation

721 General Requirements

Mailpieces containing hazardous material must meet the following conditions:

a. **Permitted Material:** Material must comply with air transportation requirements.

b. **Preparation and Packaging:** Material must be prepared and packaged under all applicable conditions for air transportation.

c. **Service Requirement:** Package must be sent by *Priority Mail Express*, *Priority Mail*, or *First-Class Package International Service*.

Hazardous materials are not acceptable for air transportation if they are not prepared in compliance with the specific applicable requirements. These requirements consider the degree of hazard, quantity of material, method of packaging, required Shipper's Declaration for Dangerous Goods, and adequacy of labels and/or markings required for carriage aboard an aircraft.

Chapters 3 and 6, and the Packaging Instructions in Appendix C, provide full details of the conditions under which mailable hazardous materials (domestic) and dangerous goods (international) may be mailed via air transportation

722 Additional Requirements

722.1 APO/FPO/DPO Mail

Hazardous, restricted, or perishable materials mailed to, from, and between overseas military or diplomatic Post Offices are subject to the conditions of IMM 130, the standards in this publication, conditions prescribed by the Department of State international security policy, and conditions prescribed by the Department of Defense (DOD), as listed in *Overseas Military/ Diplomatic Mail* in the *Postal Bulletin*. Refer also to Chapter 6 and Domestic Mail Manual (DMM) 703.2 for information on air transportation and other restrictions affecting APO/FPO/DPO, SAM, and PAL service.

722.2 ZIP Codes Served Only by Air Transportation

Hazardous materials that are prohibited from mailing via air transportation cannot be mailed to any ZIP Code that is serviced only by air transportation (e.g., certain ZIP Codes in Alaska).

723 Consumer Commodity and Mailable Limited Quantity Materials

Hazardous materials permitted to be sent in domestic mail via air transportation must qualify as consumer commodity materials or air-eligible limited quantity materials. Refer to 333 and 334 for more information.

To be acceptable for air transportation these materials must meet the following conditions:

a. **Permitted Materials:** Material must comply with air transportation requirements.

b. **Packaging and Marking:** Be properly packaged and marked.

c. **Shipping Paper:** The mailpiece must display shipping documentation as required in 326 and 711.3.

724 Postal Service Handling

724.1 Acceptance Personnel

In addition to the basic guidelines in 251, acceptance personnel must follow the Transportation/Aviation Security Hazardous Materials Program instructions for the acceptance of hazardous materials. Key requirements include:

a. **Proper Preparation:** Each mailpiece presented contains a mailable hazardous material that is properly packaged and labeled.

b. **Shipper's Declaration for Dangerous Goods:** If required, the mailpiece bears the required Shipper's Declaration for Dangerous Goods (refer to 326 and 711.3).

c. **Air-Transportation Eligibility:** The mailpiece is eligible for air transportation and mailed as *Priority Mail Express*, *Priority Mail*, or *First-Class Package International Service*, as permitted.

d. **Surface Markings:** These mailpieces must never display markings indicating surface transportation, such as "Surface Mail" or "Surface Mail Only."

Note: For safety reasons, mailers are not permitted to pay postage at *Priority Mail Express* or *Priority Mail* prices for mailpieces containing hazardous materials that are not eligible for air transportation.

724.2 Dispatch Personnel

In addition to the basic guidelines in 252, Postal Service personnel involved with mail dispatch via air transportation must follow the *Hazardous Materials Program, HAZMAT SOP*. These policy statements provide interim field instructions for handling mailpieces containing hazardous materials within mail processing areas and the proper tendering of such mail to the air carriers.

724.3 Nonmailable or Improperly Prepared Mailpieces

Mailpieces containing nonmailable or improperly packaged hazardous materials that were inadvertently accepted for mailing should:

a. Be stopped where identified and not presented to an air carrier.

b. Be handled in accordance with the *Hazardous Materials Program*, *HAZMAT SOP*.

c. Include notification to the mailer and the Post Office of origin to prevent future shipments from being incorrectly accepted for mailing.

73 Restricted Matter: Air Transportation

Certain restricted articles, as described in 49 CFR § 100-185 and the operator variations of the air carriers, may be accepted for air transportation if properly packaged. These articles must be labeled and display a Shipper's Declaration for Dangerous Goods in triplicate, as required by 49 CFR § 172.204, or must be marked according to the air carrier's operator variations. Refer to the technical instruction of the International Civil Aviation Organization (ICAO) for air carrier operator variations.

74 Perishable Matter: Air Transportation

741 General Requirements

Perishable matter refers to any item that can readily deteriorate during normal mail transport conditions and thereby lose value, create a health hazard, or cause a nuisance or disturbance.

742 Live Animals

742.1 Basic Conditions

Most mailable live animals (refer to 526) are permitted to be sent via air transportation. However, the Postal Service's ability to provide air transportation depends on:

a. **Eligibility for Air Transport:** The animal must be mailable and eligible for air transport.

b. **Compliance with Airline Requirements:** All provisions of airline tariffs and air carriers must be met.

c. **Availability of Carrier Equipment:** Air carrier equipment must be available to the Postal Service and support the safe and timely delivery of shipments.

d. **Time Allowance:** Potential delays during air transportation, or during subsequent ground transportation, must be considered.

Note: Local Postal Service personnel are not authorized to refuse the deposit of mailable live animals that are properly packaged. Refer to 523.

743 Perishable Matter with Dry Ice

Mailpieces containing mailable matter packed in dry ice (carbon dioxide solid) must meet all requirements in 349 that apply to sending dry ice in domestic mail via air transportation (refer to Packaging Instruction 9A in Appendix C). For air transportation, the amount of dry ice cannot exceed 5 pounds per mailpiece. Dry ice is prohibited to be mailed to international, APO/FPO/ DPO or domestic territories outside the customs territory of the United States (refer to 612).

744 Air Transportation Prohibitions

The following types of hazardous materials are prohibited from air transportation under any circumstances:

a. **Explosives:** All classes of explosive materials.

b. **Items Affected by Pressure or Temperature:** Anything susceptible to damage or that can become harmful because of changes in temperature or atmospheric pressures, unless adequately protected against the effects of such changes.

c. **Magnetic Materials:** Materials with a field strength capable of causing compass deviations at a distance of 7 feet or more from any point on the outer packaging.

d. **Flammable Materials:** Gases, liquids, and solids classified as flammable.

e. **Radioactive Materials:** Any material designated as radioactive.

f. **Other Prohibited Materials:** Hazardous materials excluded from air shipment by the regulations of 49 CFR § 100-185, or by the applicable country (refer to ICLs) or air carrier operator variations (refer to ICAO regulations).

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Appendix A

Hazardous Materials Table: Postal Service Mailability Guide

The mailing information in this table is based on the DOT Hazardous Materials Table in 49 CFR § 172.101. The information is modified to identify the mailability of each hazardous material based on Postal Service mailing regulations. This table identifies the mailability of hazardous materials for *domestic mail only*. Almost no hazardous materials are permitted in international mail. For information on mailability in international mail, refer to Chapter 6 and Exhibit 621.0.

In the domestic mail, generally only those hazardous materials meeting all of the following criteria are eligible for mailing:

a. Designated by DOT as being eligible to be transported under its Limited Quantity Provision,

b. Packaged and distributed in a quantity and form intended or suitable for retail sale, and

c. Designed for consumption by individuals for their personal care or household uses (i.e. consumer commodity material) are eligible for mailing and subject to postal quantity limitations.

The only exceptions to the above criteria are for the small number of materials listed in 322.

The columns in the hazardous materials table lists the mailability according to Postal Service regulations. If the entry is “Prohibited,” the material is nonmailable. If the entry cites a reference to this publication, the material is subject to those requirements and restrictions. If the entry is “Limited Quantity,” the material is mailable only if it can qualify as a Limited Quantity air material or Limited Quantity surface material in the Postal Service. Limited Quantity air and Limited Quantity surface materials cannot exceed the postal quantity limits specified in this publication. The mailer is responsible for correctly determining if the hazardous material is eligible in the Postal Service networks. If assistance is needed, the mailer may request a ruling from the PCSC as provided in 215.2. If the hazardous material is mailable in the domestic mail, refer to Column (e) and (f), as appropriate, to determine the applicable postal packaging instruction in Appendix C.

The columns in the table contain the following information:

Column (a): Lists the proper shipping name of the hazardous material in roman type. Text that appears in *italic* type is not part of the proper shipping name of the hazardous material and is listed for descriptive or reference purposes. Some listings direct the user to the preferred proper shipping

name of a material listed elsewhere in the table. The text in this column closely matches the information in Column 2 of the Hazardous Materials Table in 49 CFR § 172.101.

Column (b): Lists the assigned hazard class or division of the hazardous material. The entry "Forbidden" means the material may not be transported under any circumstances. The entry "n/a" means the material does not have an assigned hazard class. If the field is blank, refer to the listing for the preferred proper shipping name cited in Column (a). The text in this column closely matches the information in Column 3 of the Hazardous Materials Table in 49 CFR § 172.101.

Column (c): Lists the identification (ID) number assigned to the hazardous material. The number may be either a United Nations (UN) number or a North American (NA) number. This field is blank if Column (a) directs the user to the listing for the preferred proper shipping name of the material, or if the entry in Column (b) is "Forbidden." The text in this column closely matches the information in Column 4 of the Hazardous Materials Table in 49 CFR § 172.101.

Column (d): Lists the DOT Packing Group (PG) assignment for the hazardous material. Not all hazard classes have DOT Packing Group assignments. If this field contains "n/a," the material is in a hazard class that does not use Packing Group assignments. This field is blank if Column (a) directs the user to the listing for the preferred proper shipping name of the material, or if the entry in Column (b) is "Forbidden." The text in this column closely matches the information in Column 5 of the Hazardous Materials Table in 49 CFR § 172.101.

Column (e): Lists the *USPS Packaging Instruction* in Appendix C that must be followed if the hazardous material is permitted in domestic mail via air transportation. This field is blank if Column (a) directs the user to the listing for the preferred proper shipping name of the material, or if the hazardous material is prohibited from mailing as designated in Column (e). If the entry in this column is "Prohibited," the material is not permitted in domestic mail via air transportation.

Column (f): Lists the *USPS Packaging Instruction* in Appendix C that must be followed if the hazardous material is permitted in domestic mail via surface transportation. This field is blank if Column (a) directs the user to the listing for the preferred proper shipping name of the material, or if the hazardous material is prohibited from mailing as designated in Column (e). If the entry in this column is "Prohibited," the material is not permitted in domestic mail via surface transportation.

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
A					
Accellerene, see p-Nitrosodimethylaniline					
Accumulators, electric, see Batteries, wet *etc.*					

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Accumulators, pressurized, pneumatic *or* hydraulic (*containing nonflammable gas*), *see* Articles pressurized, pneumatic *or* hydraulic (containing nonflammable gas)					
Acetal	3	UN1088	II	Prohibited	3A
Acetaldehyde	3	UN1089	I	Prohibited	Prohibited
Acetaldehyde ammonia	9	UN1841	III	Prohibited	9C
Acetaldehyde oxime	3	UN2332	III	Prohibited	3A
Acetic acid, glacial *or* Acetic acid solution, *with more than 80 percent acid, by mass*	8	UN2789	II	8A	8A
Acetic acid solution, *not less than 50 percent but not more than* 80 percent acid, by mass	8	UN2790	II	8A	8A
Acetic acid solution, *with more than 10 percent and less than 50 percent acid, by mass*	8	UN2790	III	8A	8A
Acetic anhydride	8	UN1715	II	8A	8A
Acetone	3	UN1090	II	Prohibited	3A
Acetone cyanohydrin, stabilized	6.1	UN1541	I	Prohibited	Prohibited
Acetone oils	3	UN1091	II	Prohibited	3A
Acetonitrile	3	UN1648	II	Prohibited	3A
Acetyl acetone peroxide with more than 9 percent by mass active oxygen	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Acetyl benzoyl peroxide, solid, or with more than 40 percent in solution	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Acetyl bromide	8	UN1716	II	8A	8A
Acetyl chloride	3	UN1717	II	Prohibited	Prohibited
Acetyl cyclohexanesulfonyl peroxide, with more than 82 percent wetted with less than 12 percent water	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Acetyl iodide	8	UN1898	II	8A	8A
Acetyl methyl carbinol	3	UN2621	III	Prohibited	3A
Acetyl peroxide, solid, or with more than 25 percent in solution	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Acetylene, dissolved	2.1	UN1001	n/a	Prohibited	Prohibited
Acetylene (liquified)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Acetylene silver nitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Acetylene, solvent free	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Acetylene tetrabromide, see Tetrabromoethane					
Acid butyl phosphate, see Butyl acid phosphate					
Acid, sludge, see Sludge, acid					

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Acridine	6.1	UN2713	III	6A	6A
Acrolein dimer, stabilized	3	UN2607	III	Prohibited	3A
Acrolein, stabilized	6.1	UN1092	I	Prohibited	Prohibited
Acrylamide, solid	6.1	UN2074	III	6A	6A
Acrylamide, solution	6.1	UN3426	III	6A	6A
Acrylic acid, stabilized	8	UN2218	II	8A	8A
Acrylonitrile, stabilized	3	UN1093	I	Prohibited	Prohibited
Actuating cartridge, explosive, see Cartridges, power device					
Adhesives, *containing a flammable liquid*	3	UN1133	I, II, III	Prohibited	3A
Adiponitrile	6.1	UN2205	III	6A	6A
Aerosols, *corrosive, Packing Group II or III, (each not exceeding 1 L capacity)*	2.2	UN1950	n/a	2B	2B
Aerosols, flammable *(each not exceeding 1 L capacity)*	2.1	UN1950	n/a	Prohibited	2A
Aerosols, flammable, n.o.s. *(engine starting fluid) (each not exceeding 1 L capacity)*	2.1	UN1950	n/a	Prohibited	2A
Aerosols, *nonflammable (each not exceeding 1 L capacity)*	2.2	UN1950	n/a	2B	2B
Aerosols, *poison, each not exceeding 1 L capacity*	2.2	UN1950	n/a	2B	2B
Air bag inflators, or Air bag modules, or Seatbelt pretensioners	1.4G	UN0503	II	Prohibited	Prohibited
Air bag inflators, or Air bag modules, or Seatbelt pretensioners	9	UN3268	III	Prohibited	Prohibited
Air, compressed	2.2	UN1002	n/a	2B	2B
Air, refrigerated liquid *(cryogenic liquid)*	2.2	UN1003	n/a	Prohibited	Prohibited
Air, refrigerated liquid *(cryogenic liquid), nonpressurized*	2.2	UN1003	n/a	Prohibited	Prohibited
Aircraft engines (including turbines), see Engines, internal combustion					
Aircraft evacuation slides, see Lifesaving appliances etc.					
Aircraft hydraulic power unit fuel tank *(containing a mixture of anhydrous hydrazine and monomethyl hydrazine) (M86 fuel)*	3	UN3165	I	Prohibited	Prohibited
Aircraft survival kits, see Lifesaving appliances etc.					
Alcoholates solution, n.o.s., *in alcohol*	3	UN3274	II	Prohibited	Prohibited
Alcoholic beverages	3	UN3065	II, III	Prohibited	Prohibited
Alcohols, n.o.s.	3	UN1987	I	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Alcohols, n.o.s.	3	UN1987	II, III	Prohibited	3A
Alcohols, flammable, toxic, n.o.s.	3	UN1986	I, II, III	Prohibited	Prohibited
Aldehydes, n.o.s.	3	UN1989	I	Prohibited	Prohibited
Aldehydes, n.o.s.	3	UN1989	II, III	Prohibited	3A
Aldehydes, flammable, toxic, n.o.s.	3	UN1988	I, II	Prohibited	Prohibited
Aldehydes, flammable, toxic, n.o.s.	3	UN1988	III	Prohibited	3A
Aldol	6.1	UN2839	II	Prohibited	Prohibited
Aldrin, *liquid*	6.1	NA2762	II	Prohibited	Prohibited
Aldrin, *solid*	6.1	NA2761	II	Prohibited	Prohibited
Alkali metal alcoholates, self-heating, corrosive, n.o.s.	4.2	UN3206	II, III	Prohibited	Prohibited
Alkali metal alloys, liquid, n.o.s.	4.3	UN1421	I	Prohibited	Prohibited
Alkali metal amalgam, liquid	4.3	UN1389	I	Prohibited	Prohibited
Alkali metal amalgam, solid	4.3	UN3401	I	Prohibited	Prohibited
Alkali metal amides	4.3	UN1390	II	Prohibited	4A
Alkali metal dispersions, flammable or Alkaline earth metal dispersions, flammable	4.3	UN3482	I	Prohibited	Prohibited
Alkali metal dispersions, or Alkaline earth metal dispersions	4.3	UN1391	I	Prohibited	Prohibited
Alkaline corrosive liquids, n.o.s., see Caustic alkali liquids, n.o.s.					
Alkaline earth metal alcoholates, n.o.s.	4.2	UN3205	II, III	Prohibited	Prohibited
Alkaline earth metal alloys, n.o.s.	4.3	UN1393	II	Prohibited	4A
Alkaline earth metal amalgams, liquid	4.3	UN1392	I	Prohibited	Prohibited
Alkaline earth metal amalgams, solid	4.3	UN3402	I	Prohibited	Prohibited
Alkaloids, liquid, n.o.s., or Alkaloid salts, liquid, n.o.s.	6.1	UN3140	I, II	Prohibited	Prohibited
Alkaloids, liquid, n.o.s., or Alkaloid salts, liquid, n.o.s.	6.1	UN3140	III	6A	6A
Alkaloids, solid, n.o.s. or Alkaloid salts, solid, n.o.s. *poisonous*	6.1	UN1544	I, II	Prohibited	Prohibited
Alkaloids, solid, n.o.s. or Alkaloid salts, solid, n.o.s. *poisonous*	6.1	UN1544	III	6A	6A
Alkyl sulfonic acids, liquid or Aryl sulfonic acids, liquid *with more than 5 percent free sulfuric acid*	8	UN2584	II	8A	8A
Alkyl sulfonic acids, liquid or Aryl sulfonic acids, liquid *with not more than 5 percent free sulfuric acid*	8	UN2586	III	8A	8A
Alkyl sulfonic acids, solid or Aryl sulfonic acids, solid *with more than 5 percent free sulfuric acid*	8	UN2583	II	8A	8A
Alkyl sulfonic acids, solid or Aryl sulfonic acids, solid *with not more than 5 percent free sulfuric acid*	8	UN2585	III	8A	8A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Alkylphenols, liquid, n.o.s. *(including C2C12 homologues)*	8	UN3145	I	Prohibited	Prohibited
Alkylphenols, liquid, n.o.s. (*including C2-C12 homologues)*	8	UN3145	II, III	8A	8A
Alkylphenols, solid, n.o.s. *(including C2-C12 homologues)*	8	UN2430	I	Prohibited	Prohibited
Alkylphenols, solid, n.o.s. *(including C2-C12 homologues)*	8	UN2430	II, III	8A	8A
Alkylsulfuric acids	8	UN2571	II	8A	8A
Allethrin, see Pesticides, liquid, toxic, n.o.s.					
Allyl acetate	3	UN2333	II	Prohibited	Prohibited
Allyl alcohol	6.1	UN1098	I	Prohibited	Prohibited
Allyl bromide	3	UN1099	I	Prohibited	Prohibited
Allyl chloride	3	UN1100	I	Prohibited	Prohibited
Allyl chlorocarbonate, see Allyl chloroformate					
Allyl chloroformate	6.1	UN1722	I	Prohibited	Prohibited
Allyl ethyl ether	3	UN2335	II	Prohibited	Prohibited
Allyl formate	3	UN2336	I	Prohibited	Prohibited
Allyl glycidyl ether	3	UN2219	III	Prohibited	3A
Allyl iodide	3	UN1723	II	Prohibited	Prohibited
Allyl isothiocyanate, stabilized	6.1	UN1545	II	Prohibited	Prohibited
Allylamine	6.1	UN2334	I	Prohibited	Prohibited
Allyltrichlorosilane, stabilized	8	UN1724	II	Prohibited	Prohibited
Aluminum borohydride or Aluminum borohydride in devices	4.2	UN2870	I	Prohibited	Prohibited
Aluminum bromide, anhydrous	8	UN1725	II	8A	8A
Aluminum bromide, solution	8	UN2580	III	8A	8A
Aluminum carbide	4.3	UN1394	II	Prohibited	4A
Aluminum chloride, anhydrous	8	UN1726	II	8A	8A
Aluminum chloride, solution	8	UN2581	III	8A	8A
Aluminum dross, wet or hot	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Aluminum ferrosilicon powder	4.3	UN1395	II, III	Prohibited	4A
Aluminum hydride	4.3	UN2463	I	Prohibited	Prohibited
Aluminum, molten	9	NA9260	III	Prohibited	Prohibited
Aluminum, nitrate	5.1	UN1438	III	5A	5A
Aluminum phosphate solution, see Corrosive liquids, etc.					
Aluminum phosphide	4.3	UN1397	I	Prohibited	Prohibited
Aluminum phosphide pesticides	6.1	UN3048	I	Prohibited	Prohibited
Aluminum powder, coated	4.1	UN1309	II, III	Prohibited	4A
Aluminum powder, uncoated	4.3	UN1396	II, III	Prohibited	4A
Aluminum resinate	4.1	UN2715	III	Prohibited	4A
Aluminum silicon powder, uncoated	4.3	UN1398	III	Prohibited	4A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Aluminum smelting by-products or Aluminum remelting by-products	4.3	UN3170	II, III	Prohibited	Prohibited
Amatols, see Explosives, blasting, type B					
Amine, flammable, corrosive, n.o.s. or Polyamines, flammable, corrosive, n.o.s.	3	UN2733	I, II	Prohibited	Prohibited
Amine, flammable, corrosive, n.o.s. or Polyamines, flammable, corrosive, n.o.s.	3	UN2733	III	Prohibited	3A
Amine, liquid, corrosive, flammable, n.o.s. or Polyamines, liquid, corrosive, flammable, n.o.s.	8	UN2734	I, II	Prohibited	Prohibited
Amines, liquid, corrosive, n.o.s. or Polyamines, liquid, corrosive, n.o.s.	8	UN2735	I	Prohibited	Prohibited
Amines, liquid, corrosive, n.o.s. or Polyamines, liquid, corrosive, n.o.s.	8	UN2735	II, III	8A	8A
Amines, solid, corrosive, n.o.s. or Polyamines, solid, corrosive, n.o.s.	8	UN3259	I	Prohibited	Prohibited
Amines, solid, corrosive, n.o.s. or Polyamines, solid, corrosive, n.o.s.	8	UN3259	II, III	8A	8A
2-Amino-4-chlorophenol	6.1	UN2673	II	Prohibited	Prohibited
2-Amino-5-diethylaminopentane	6.1	UN2946	III	6A	6A
2-Amino-4,6-Dinitrophenol, wetted *with not less than 20 percent water by mass*	4.1	UN3317	I	Prohibited	Prohibited
2-(2-Aminoethoxy) ethanol	8	UN3055	III	8A	8A
N-Aminoethylpiperazine	8	UN2815	III	8A	8A
Aminophenols *(o-; m-; p-)*	6.1	UN2512	III	6A	6A
Aminopropyldiethanolamine, see Amines, etc.					
n-Aminopropylmorpholine, see Amines, etc.					
Aminopyridines *(o-; m-; p-)*	6.1	UN2671	II	Prohibited	Prohibited
Ammonia, anhydrous (international)	2.3	UN1005	n/a	Prohibited	Prohibited
Ammonia, anhydrous (domestic)	2.2	UN1005	n/a	Prohibited	Prohibited
Ammonia solution, *relative density between 0.880 and 0.957 at 15° C in water, with more than 10 percent but not more than 35 percent ammonia*	8	UN2672	III	8A	8A
Ammonia solution, *relative density less than 0.880 at 15° C in water, with more than 35 percent but not more than 50 percent ammonia*	2.2	UN2073	n/a	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Ammonia solution, *relative density less than 0.880 at 15° C in water, with more than 50 percent ammonia*	2.2	UN3318	n/a	Prohibited	Prohibited
Ammonia solution, *relative density less than 0.880 at 15° C in water, with more than 50 percent ammonia*	2.3	UN3318	n/a	Prohibited	Prohibited
Ammonium arsenate	6.1	UN1546	II	Prohibited	Prohibited
Ammonium azide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Ammonium bifluoride, solid, see Ammonium hydrogen difluoride, solid					
Ammonium bifluoride, solution, see Ammonium hydrogen difluoride, solution					
Ammonium bromate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Ammonium chlorate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Ammonium dichromate	5.1	UN1439	II	5A	5A
Ammonium dinitro-o-cresolate, solid	6.1	UN1843	II	Prohibited	Prohibited
Ammonium dinitro-o-cresolate, solution	6.1	UN3424	II	Prohibited	Prohibited
Ammonium fluoride	6.1	UN2505	III	6A	6A
Ammonium fluorosilicate	6.1	UN2854	III	6A	6A
Ammonium fulminate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Ammonium hydrogen sulfate	8	UN2506	II	8A	8A
Ammonium hydrogendifluoride, solid	8	UN1727	II	8A	8A
Ammonium hydrogendiflouride, solution	8	UN2817	II	Prohibited	Prohibited
Ammonium hydrogendiflouride, solution	8	UN2817	III	8A	8A
Ammonium hydrosulfide, solution, see Ammonium sulfide solution					
Ammonium hydroxide, see Ammonia solutions, etc.					
Ammonium metavanadate	6.1	UN2859	II	Prohibited	Prohibited
Ammonium nitrate fertilizers	5.1	NA2072	III	5A	5A
Ammonium nitrate based fertilizers	5.1	UN2067	III	5A	5A
Ammonium nitrate based fertilizers	9	UN2071	III	9C	9C
Ammonium nitrate-fuel oil mixture *containing only prilled ammonium nitrate and fuel oil*	1.5D	NA0331	II	Prohibited	Prohibited
Ammonium nitrate, liquid *(hot concentrated solution)*	5.1	UN2426	n/a	Prohibited	Prohibited
Ammonium nitrate mixed fertilizers	5.1	NA2069	III	5A	5A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Ammonium nitrate, *with more than 0.2 percent combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substance*	1.1D	UN0222	II	Prohibited	Prohibited
Ammonium nitrate, *with not more than 0.2 percent of combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substance*	5.1	UN1942	III	5A	5A
Ammonium nitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Ammonium perchlorate	1.1D	UN0402	II	Prohibited	Prohibited
Ammonium perchlorate	5.1	UN1442	II	5A	5A
Ammonium permanganate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Ammonium persulfate	5.1	UN1444	III	5A	5A
Ammonium picrate, *dry or wetted with less than 10 percent water, by mass*	1.1D	UN0004	II	Prohibited	Prohibited
Ammonium picrate, *wetted with not less than 10 percent water, by mass*	4.1	UN1310	I	Prohibited	Prohibited
Ammonium polysulfide, solution	8	UN2818	II	Prohibited	Prohibited
Ammonium polysulfide, solution	8	UN2818	III	8A	8A
Ammonium polyvanadate	6.1	UN2861	II	6A	6A
Ammonium silicofluoride, see Ammonium fluorosilicate					
Ammonium sulfide solution	8	UN2683	II	Prohibited	Prohibited
Ammunition, blank, see Cartridges for weapons, blank					
Ammunition, illuminating *with or without burster, expelling charge, or propelling charge*	1.2G	UN0171	II	Prohibited	Prohibited
Ammunition, illuminating *with or without burster, expelling charge, or propelling charge*	1.3G	UN0254	II	Prohibited	Prohibited
Ammunition, illuminating *with or without burster, expelling charge, or propelling charge*	1.4G	UN0297	II	Prohibited	Prohibited
Ammunition, incendiary *liquid or gel, with burster, expelling charge, or propelling charge*	1.3J	UN0247	II	Prohibited	Prohibited
Ammunition, incendiary *(water-activated contrivances) with burster, expelling charge, or propelling charge, see Contrivances, water-activated, etc.*					

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Ammunition, incendiary, white phosphorus, *with burster, expelling charge, or propelling charge*	1.2H	UN0243	II	Prohibited	Prohibited
Ammunition, incendiary, white phosphorus, *with burster, expelling charge, or propelling charge*	1.3H	UN0244	II	Prohibited	Prohibited
Ammunition, incendiary *with or without burster, expelling charge, or propelling charge*	1.2G	UN0009	II	Prohibited	Prohibited
Ammunition, incendiary *with or without burster, expelling charge, or propelling charge*	1.3G	UN0010	II	Prohibited	Prohibited
Ammunition, incendiary *with or without burster, expelling charge, or propelling charge*	1.4G	UN0300	II	Prohibited	Prohibited
Ammunition, practice	1.4G	UN0362	II	Prohibited	Prohibited
Ammunition, practice	1.3G	UN0488	II	Prohibited	Prohibited
Ammunition, proof	1.4G	UN0363	II	Prohibited	Prohibited
Ammunition, rocket, see Warheads, rocket etc.					
Ammunition, SA (small arms), see Cartridges for weapons, etc.					
Ammunition, smoke (water-activated contrivances), white phosphorus, with burster, expelling charge, or propelling charge, see Contrivances, water-activated, etc. (UN0248)					
Ammunition, smoke (water-activated contrivances), without white phosphorus or phosphides, with burster, expelling charge, or propelling charge, see Contrivances, water-activated, etc. (UN0249)					
Ammunition smoke, white phosphorus *with burster, expelling charge, or propelling charge*	1.2H	UN0245	II	Prohibited	Prohibited
Ammunition, smoke, white phosphorus *with burster, expelling charge, or propelling charge*	1.3H	UN0246	II	Prohibited	Prohibited
Ammunition, smoke, *with or without burster, expelling charge, or propelling charge*	1.2G	UN0015	II	Prohibited	Prohibited
Ammunition, smoke, *with or without burster, expelling charge, or propelling charge*	1.3G	UN0016	II	Prohibited	Prohibited
Ammunition, smoke, *with or without burster, expelling charge, or propelling charge*	1.4G	UN0303	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Ammunition, sporting, see Cartridges for weapons, etc. *(UN0012; UN0328; UN0339)*					
Ammunition, tear-producing, nonexplosive, *without burster or expelling charge, non-fuzed*	6.1	UN2017	II	Prohibited	Prohibited
Ammunition, tear-producing *with burster, expelling charge, or propelling charge*	1.2G	UN0018	II	Prohibited	Prohibited
Ammunition, tear-producing *with burster, expelling charge, or propelling charge*	1.3G	UN0019	II	Prohibited	Prohibited
Ammunition, tear-producing *with burster, expelling charge, or propelling charge*	1.4G	UN0301	II	Prohibited	Prohibited
Ammunition, toxic (water-activated contrivances), with burster, expelling charge, or propelling charge, see Contrivances, wateractivated, etc.					
Ammunition, toxic, nonexplosive, *without burster or expelling charge, non-fuzed*	6.1	UN2016	II	Prohibited	Prohibited
Ammunition, toxic *with burster, expelling charge, or propelling charge*	1.2K	UN0020	II	Prohibited	Prohibited
Ammunition, toxic *with burster, expelling charge, or propelling charge*	1.3K	UN0021	II	Prohibited	Prohibited
Amyl acetates	3	UN1104	III	Prohibited	3A
Amyl acid phosphate	8	UN2819	III	8A	8A
Amyl butyrates	3	UN2620	III	Prohibited	3A
Amyl chlorides	3	UN1107	II	Prohibited	3A
Amyl formates	3	UN1109	III	Prohibited	3A
Amyl mercaptans	3	UN1111	II	Prohibited	Prohibited
n-Amyl methyl ketone	3	UN1110	III	Prohibited	3A
Amyl nitrate	3	UN1112	III	Prohibited	3A
Amyl nitrites	3	UN1113	II	Prohibited	3A
Amylamines	3	UN1106	II	Prohibited	Prohibited
Amylamines	3	UN1106	III	Prohibited	3A
Amyltrichlorosilane	8	UN1728	II	Prohibited	Prohibited
Anhydrous ammonia see Ammonia, anhydrous, liquified					
Anhydrous hydrofluoric acid, see Hydrogen fluoride, anhydrous					
Aniline	6.1	UN1547	II	Prohibited	Prohibited
Aniline hydrochloride	6.1	UN1548	III	6A	6A
Aniline oil, see Aniline					

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Anisidines	6.1	UN2431	III	6A	6A
Anisole	3	UN2222	III	Prohibited	3A
Anisoyl chloride	8	UN1729	II	8A	8A
Antifreeze, liquid, see Flammable liquids, n.o.s					
Antimonous chloride, see Antimony trichloride					
Antimony compounds, inorganic, liquid, n.o.s.	6.1	UN3141	III	6A	6A
Antimony compounds, inorganic, solid, n.o.s.	6.1	UN1549	III	6A	6A
Antimony lactate	6.1	UN1550	III	6A	6A
Antimony pentachloride, liquid	8	UN1730	II	Prohibited	Prohibited
Antimony pentachloride, solutions	8	UN1731	II, III	8A	8A
Antimony pentafluoride	8	UN1732	II	Prohibited	Prohibited
Antimony potassium tartrate	6.1	UN1551	III	6A	6A
Antimony powder	6.1	UN2871	III	6A	6A
Antimony sulfide and a chlorate, mixtures of	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Antimony sulfide, solid, see Antimony compounds, inorganic, n.o.s.					
Antimony tribromide, solid	8	NA1549	II	8A	8A
Antimony tribromide, solution	8	NA1549	II	8A	8A
Antimony trichloride, liquid	8	UN1733	II	8A	8A
Antimony trichloride, solid	8	UN1733	II	8A	8A
Antimony, trifluoride, solid	8	NA1549	II	8A	8A
Antimony, trifluoride, solution	8	NA1549	II	8A	8A
Aqua ammonia, see Ammonia solution, etc.					
Argon, compressed	2.2	UN1006	n/a	2B	2B
Argon, refrigerated liquid (cryogenic liquid)	2.2	UN1951	n/a	Prohibited	Prohibited
Arsenic	6.1	UN1558	II	Prohibited	Prohibited
Arsenic acid, liquid	6.1	UN1553	I	Prohibited	Prohibited
Arsenic acid, solid	6.1	UN1554	II	Prohibited	Prohibited
Arsenic bromide	6.1	UN1555	II	Prohibited	Prohibited
Arsenic chloride, see Arsenic trichloride					
Arsenic compounds, liquid, n.o.s. *inorganic, including arsenates, n.o.s.; arsenites, n.o.s.; arsenic sulfides, n.o.s.; and organic compounds of arsenic, n.o.s.*	6.1	UN1556	I, II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Arsenic compounds, liquid, n.o.s. *inorganic, including arsenates, n.o.s.; arsenites, n.o.s.; arsenic sulfides, n.o.s.; and organic compounds of arsenic, n.o.s.*	6.1	UN1556	III	6A	6A
Arsenic compounds, solid, n.o.s. *inorganic, including arsenates, n.o.s.; arsenites, n.o.s.; arsenic sulfides, n.o.s.; and organic compounds of arsenic, n.o.s.*	6.1	UN1557	I, II	Prohibited	Prohibited
Arsenic compounds, solid, n.o.s. *inorganic, including arsenates, n.o.s.; arsenites, n.o.s.; arsenic sulfides, n.o.s.; and organic compounds of arsenic, n.o.s.*	6.1	UN1557	III	6A	6A
Arsenic pentoxide	6.1	UN1559	II	Prohibited	Prohibited
Arsenic sulfide	6.1	NA1557	II	Prohibited	Prohibited
Arsenic sulfide and a chlorate, mixtures of	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Arsenic trichloride	6.1	UN1560	I	Prohibited	Prohibited
Arsenic trioxide	6.1	UN1561	II	Prohibited	Prohibited
Arsenic trisulfide	6.1	NA1557	II	Prohibited	Prohibited
Arsenic, white, solid, see Arsenic trioxide					
Arsenical dust	6.1	UN1562	II	Prohibited	Prohibited
Arsenical pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*	3	UN2760	I, II	Prohibited	Prohibited
Arsenical pesticides, liquid, toxic	6.1	UN2994	I, II	Prohibited	Prohibited
Arsenical pesticides, liquid, toxic	6.1	UN2994	III	6A	6A
Arsenical pesticides, liquid, toxic, flammable *flashpoint not less than 23° C*	6.1	UN2993	I, II	Prohibited	Prohibited
Arsenical pesticides, liquid, toxic, flammable *flashpoint not less than 23° C*	6.1	UN2993	III	6A	6A
Arsenical pesticides, solid, toxic	6.1	UN2759	I, II	Prohibited	Prohibited
Arsenical pesticides, solid, toxic	6.1	UN2759	III	6A	6A
Arsenious acid, solid, see Arsenic trioxide					
Arsenious and mercuric iodide solution, see Arsenic compounds, liquid, n.o.s.					
Arsine	2.3	UN2188	n/a	Prohibited	Prohibited
Articles, explosive, extremely insensitive *or* Articles, EEI	1.6N	UN0486	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.4S	UN0349	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.4B	UN0350	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Articles, explosive, n.o.s.	1.4C	UN0351	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.4D	UN0352	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.4G	UN0353	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.1L	UN0354	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.2L	UN0355	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.3L	UN0356	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.1C	UN0462	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.1D	UN0463	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.1E	UN0464	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.1F	UN0465	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.2C	UN0466	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.2D	UN0467	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.2E	UN0468	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.2F	UN0469	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.3C	UN0470	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.4E	UN0471	II	Prohibited	Prohibited
Articles, explosive, n.o.s.	1.4F	UN0472	II	Prohibited	Prohibited
Articles, pressurized pneumatic *or* Hydraulic *containing nonflammable gas*	2.2	UN3164	n/a	2B	2B
Articles, pyrophoric	1.2L	UN0380	II	Prohibited	Prohibited
Articles, pyrotechnic *for technical purposes*	1.1G	UN0428	II	Prohibited	Prohibited
Articles, pyrotechnic *for technical purposes*	1.2G	UN0429	II	Prohibited	Prohibited
Articles, pyrotechnic *for technical purposes*	1.3G	UN0430	II	Prohibited	Prohibited
Articles, pyrotechnic *for technical purposes*	1.4G	UN0431	II	Prohibited	Prohibited
Articles, pyrotechnic *for technical purposes*	1.4S	UN0432	II	Prohibited	Prohibited
Asbestos	9	NA2212	III	Prohibited	9C
Ascaridole (organic peroxide)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Asphalt, *at or above its flashpoint*	3	NA1999	III	Prohibited	3A
Asphalt, cut back, *see* Tars, liquid, etc.					
Automobile, motorcycle, tractor, other self-propelled vehicle, engine, or other mechanical apparatus, see Vehicle *or* Battery *etc.*					
Aviation regulated liquid, n.o.s.	9	UN3334	n/a	9C	9C
Aviation regulated solid, n.o.s.	9	UN3335	n/a	9C	9C
Azaurolic, acid (salt of), (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Azido guanidine picrate (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
5-Azido-1-hydroxy tetrazole	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Azido hydroxy tetrazole (mercury and silver salts)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
3-Azido-1,2-Propylene glycol dinitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Azidodithiocarbonic acid	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Azidoethyl nitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
1-Aziridinylphosphine oxide-(tris), see Tris-(1aziridinyl)phosphine oxide, solution					
Azodicarbonamide	4.1	UN3242	II	Prohibited	4A
Azotetrazole (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
B					
Barium	4.3	UN1400	II	Prohibited	4A
Barium alloys, pyrophic	4.2	UN1854	I	Prohibited	Prohibited
Barium azide, *dry or wetted with less than 50 percent water, by mass*	1.1A	UN0224	II	Prohibited	Prohibited
Barium azide, *wetted with not less than 50 percent water, by mass*	4.1	UN1571	I	Prohibited	Prohibited
Barium bromate	5.1	UN2719	II	Prohibited	Prohibited
Barium chlorate, solid	5.1	UN1445	II	Prohibited	Prohibited
Barium chlorate, solution	5.1	UN3405	II	Prohibited	Prohibited
Barium compounds, n.o.s.	6.1	UN1564	II	Prohibited	Prohibited
Barium compounds, n.o.s.	6.1	UN1564	III	6A	6A
Barium cyanide	6.1	UN1565	I	Prohibited	Prohibited
Barium hypochlorite *with more than 22 percent available chlorine*	5.1	UN2741	II	5A	5A
Barium nitrate	5.1	UN1446	II	Prohibited	Prohibited
Barium oxide	6.1	UN1884	III	6A	6A
Barium perchlorate, solid	5.1	UN1447	II	Prohibited	Prohibited
Barium perchlorate, solution	5.1	UN3406	II, III	Prohibited	Prohibited
Barium permanganate	5.1	UN1448	II	Prohibited	Prohibited
Barium peroxide	5.1	UN1449	II	Prohibited	Prohibited
Barium selenate, see Selenates or Selenites					
Barium selenite, see Selenates or Selenites					
Barium styphnate	1.1A	NA0473	II	Prohibited	Prohibited
Batteries, containing sodium	4.3	UN3292	II	Prohibited	Prohibited
Batteries, dry, containing potassium hydroxide solid, *electric, storage*	8	UN3028	III	Prohibited	Prohibited
Batteries, dry, *not subject to the requirements of 49 CFR*	n/a	n/a	n/a	Mailable per 348.22b	Mailable per 348.22b

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Batteries, nickel-metal hydride see Batteries, dry. Sealed, n.o.s. *for nickel metal hydride batteries transported by modes other than vessel*	9	UN3496	n/a	Prohibited	Mailable per 348.22b
Batteries, wet, filled with acid, *electric storage*	8	UN2794	III	Prohibited	Prohibited
Batteries, wet, filled with alkali,*electric storage*	8	UN2795	III	Prohibited	Prohibited
Batteries, wet, nonspillable, *electric storage*	8	UN2800	III	8B	8B
Battery fluid, acid	8	UN2796	II	8A	8A
Battery fluid, alkali	8	UN2797	II	8A	8A
Battery lithium type, see Lithium batteries etc.					
Battery-powered vehicle or Battery-powered equipment	9	UN3171	n/a	Prohibited	Prohibited
Battery, wet, filled with acid or alkali with vehicle or mechanical equipment containing internal combustion engine) see Vehicle, etc. or, Engines, internal combustion etc.					
Benzaldehyde	9	UN1990	III	9C	9C
Benzene	3	UN1114	II	Prohibited	3A
Benzene diazonium chloride (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Benzene diazonium nitrate (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Benzene phosphorus dichloride, see Phenyl phosphorus dichloride					
Benzene phosphorus thiodichloride, see Phenyl phosphorus thiodichloride					
Benzene sulfonyl chloride	8	UN2225	III	8A	8A
Benzene triozonide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Benzenethiol, see Phenyl mercaptan					
Benzidine	6.1	UN1885	II	Prohibited	Prohibited
Benzol, see Benzene					
Benzonitrile	6.1	UN2224	II	Prohibited	Prohibited
Benzoquinone	6.1	UN2587	II	Prohibited	Prohibited
Benzotrichloride	8	UN2226	II	8A	8A
Benzotrifluoride	3	UN2338	II	Prohibited	3A
Benzoxidiazoles (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Benzoyl azide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Benzoyl chloride	8	UN1736	II	8A	8A
Benzyl bromide	6.1	UN1737	II	Prohibited	Prohibited
Benzyl chloride	6.1	UN1738	II	Prohibited	Prohibited
Benzyl chloride *unstabilized*	6.1	UN1738	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Benzyl chloroformate	8	UN1739	I	Prohibited	Prohibited
Benzyl iodide	6.1	UN2653	II	Prohibited	Prohibited
Benzyldimethylamine	8	UN2619	II	8A	8A
Benzylidene chloride	6.1	UN1886	II	Prohibited	Prohibited
Beryllium compounds, n.o.s.	6.1	UN1566	II	Prohibited	Prohibited
Beryllium compounds, n.o.s.	6.1	UN1566	III	6A	6A
Beryllium nitrate	5.1	UN2464	II	Prohibited	Prohibited
Beryllium, powder	6.1	UN1567	II	Prohibited	Prohibited
Bicyclo [2,2,1] hepta-2, 5-diene, stabilized *or* 2,5-Norbornadiene, stabilized	3	UN2251	II	Prohibited	3A
Biological substance, Category B	6.2	UN3373	n/a	6C	6C
Biphenyl triozonide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Bipyridilium pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*	3	UN2782	I, II	Prohibited	Prohibited
Bipyridilium pesticides, liquid, toxic	6.1	UN3016	I, II	Prohibited	Prohibited
Bipyridilium pesticides, liquid, toxic	6.1	UN3016	III	6A	6A
Bipyridilium pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN3015	I, II	Prohibited	Prohibited
Bipyridilium pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN3015	III	6A	6A
Bipyridilium pesticides, solid, toxic	6.1	UN2781	I, II	Prohibited	Prohibited
Bipyridilium pesticides, solid, toxic	6.1	UN2781	III	6A	6A
Bis (Aminopropyl) piperazine, see Corrosive liquids, n.o.s.					
Bisulfate, aqueous solution	8	UN2837	II, III	8A	8A
Bisulfites, aqueous solutions, n.o.s.	8	UN2693	III	8A	8A
Black powder, compressed *or* Gunpowder, compressed *or* Black powder, in pellets *or* Gunpowder, in pellets	1.1D	UN0028	II	Prohibited	Prohibited
Black powder for small arms	4.1	NA0027	I	Prohibited	Prohibited
Black powder *or* Gunpowder, *granular or as a meal*	1.1D	UN0027	II	Prohibited	Prohibited
Blasting agent, n.o.s., see Explosives, blasting *etc.*					
Blasting cap assemblies, see Detonator assemblies, non-electric, *for blasting*					
Blasting caps, electric, see Detonators, electric, *for blasting*					
Blasting caps, non-electric, see Detonators, non-electric *for blasting*					

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Bleaching powder, see Calcium hypochlorite mixtures, *etc.*					
Blue asbestos *(Crocidolite) or* Brown asbestos *(amosite, mysorite)*	9	UN2212	II	Prohibited	9C
Bombs, photo-flash	1.1F	UN0037	II	Prohibited	Prohibited
Bombs, photo-flash	1.1D	UN0038	II	Prohibited	Prohibited
Bombs, photo-flash	1.2G	UN0039	II	Prohibited	Prohibited
Bombs, photo-flash	1.3G	UN0299	II	Prohibited	Prohibited
Bombs, smoke, non-explosive, *with corrosive liquid, without initiating device*	8	UN2028	II	Prohibited	Prohibited
Bombs, *with bursting charge*	1.1F	UN0033	II	Prohibited	Prohibited
Bombs, *with bursting charge*	1.1D	UN0034	II	Prohibited	Prohibited
Bombs, *with bursting charge*	1.2D	UN0035	II	Prohibited	Prohibited
Bombs, *with bursting charge*	1.2F	UN0291	II	Prohibited	Prohibited
Bombs with flammable liquid*, with bursting charge*	1.1J	UN0399	II	Prohibited	Prohibited
Bombs with flammable liquid*, with bursting charge*	1.2J	UN0400	II	Prohibited	Prohibited
Boosters with detonator	1.1B	UN0225	II	Prohibited	Prohibited
Boosters with detonator	1.2B	UN0268	II	Prohibited	Prohibited
Boosters, *without detonator*	1.1D	UN0042	II	Prohibited	Prohibited
Boosters*, without detonator*	1.2D	UN0283	II	Prohibited	Prohibited
Borate and chlorate mixtures, see Chlorate and borate mixtures					
Borneol	4.1	UN1312	III	Prohibited	Prohibited
Boron tribromide	8	UN2692	I	Prohibited	Prohibited
Boron trichloride	2.3	UN1741	n/a	Prohibited	Prohibited
Boron trifluoride acetic acid complex, liquid	8	UN1742	II	8A	8A
Boron trifluoride acetic acid complex, solid	8	UN3419	II	8A	8A
Boron trifluoride	2.3	UN1008	n/a	Prohibited	Prohibited
Boron trifluoride diethyl etherate	8	UN2604	I	Prohibited	Prohibited
Boron trifluoride dihydrate	8	UN2851	II	8A	8A
Boron trifluoride dimethyl etherate	4.3	UN2965	I	Prohibited	Prohibited
Boron trifluoride propionic acid complex, liquid	8	UN1743	II	8A	8A
Boron trifluoride propionic acid complex, solid	8	UN3420	II	8A	8A
Box toe gum, see Nitrocellulose etc.					
Bromates, inorganic, aqueous solution, n.o.s.	5.1	UN3213	II	5A	5A
Bromates, inorganic, n.o.s.	5.1	UN1450	II	5A	5A
Bromine *or* Bromine solutions	8	UN1744	I	Prohibited	Prohibited
Bromine azide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Bromine chloride	2.3	UN2901	Prohibited	Prohibited	Prohibited
Bromine pentafluoride	5.1	UN1745	I	Prohibited	Prohibited
Bromine trifluoride	5.1	UN1746	I	Prohibited	Prohibited
4-Bromo-1,2-dinitrobenzene	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
4-Bromo-1,2-dinitrobenzene (unstable at 59° C)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
1-Bromo-3-chloropropane	6.1	UN2688	III	6A	6A
1-Bromo-3-methylbutane	3	UN2341	III	Prohibited	3A
1-Bromo-3-nitrobenzene (unstable at 56° C)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Bromoacetic acid, *solid*	8	UN3425	II	8A	8A
Bromoacetic acid, *solution*	8	UN1938	II	8A	8A
Bromoacetone	6.1	UN1569	II	Prohibited	Prohibited
Bromoacetyl bromide	8	UN2513	II	8A	8A
Bromobenzene	3	UN2514	III	Prohibited	3A
Bromobenzyl cyanides, *liquid*	6.1	UN1694	I	Prohibited	Prohibited
Bromobenzyl cyanides, *solid*	6.1	UN3449	I	Prohibited	Prohibited
1-Bromobutane	3	UN1126	II	Prohibited	3A
2-Bromobutane	3	UN2339	II	Prohibited	3A
Bromochloromethane	6.1	UN1887	III	6A	6A
2-Bromoethyl ethyl ether	3	UN2340	II	Prohibited	3A
Bromoform	6.1	UN2515	III	6A	6A
Bromomethylpropanes	3	UN2342	II	Prohibited	3A
2-Bromo-2-nitropropane-1,3-diol	4.1	UN3241	III	Prohibited	4A
2-Bromopentane	3	UN2343	II	Prohibited	3A
Bromopropanes	3	UN2344	II, III	Prohibited	3A
3-Bromopropyne	3	UN2345	II	Prohibited	3A
Bromosilane	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Bromotoluenealpha, see Benzyl bromide					
Bromotrifluoroethylene	2.1	UN2419	n/a	Prohibited	Prohibited
Bromotrifluoromethane *or* Refrigerant gas, R 13B1	2.2	UN1009	n/a	2B	2B
Brucine	6.1	UN1570	I	Prohibited	Prohibited
Bursters, *explosive*	1.1D	UN0043	II	Prohibited	Prohibited
Butadienes, stabilized *or* Butadienes and Hydrocarbon mixture, stabilized *containing more than 40 percent butadienes*	2.1	UN1010	n/a	Prohibited	2A
Butane *see also* Petroleum gases, liquified	2.1	UN1011	n/a	Prohibited	2A
Butane, butane mixtures and mixtures having similar properties in cartridges each not exceeding 500 grams, see Receptacles, *etc.*					

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Butanedione	3	UN2346	II	Prohibited	3A
1,2,4-Butanetriol trinitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Butanols	3	UN1120	II, III	Prohibited	3A
Tert-Butoxycarbonyl azide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Butyl acetates	3	UN1123	II, III	Prohibited	3A
Butyl acid phosphate	8	UN1718	III	8A	8A
Butyl acrylates, stabilized	3	UN2348	III	Prohibited	3A
Butyl alcohols, see Butanols					
Butyl benzenes	3	UN2709	III	Prohibited	3A
n-Butyl bromide, see 1-Bromobutane					
n-Butyl chloride, see Chlorobutanes					
n-Butyl chloroformate	6.1	UN2743	I	Prohibited	Prohibited
secButyl chloroformate	6.1	NA2742	I	Prohibited	Prohibited
Butyl ethers, see Dibutyl ethers					
Butyl ethyl ether, see Ethyl butyl ether					
n-Butyl formate	3	UN1128	II	Prohibited	3A
Tert-Butyl hydroperoxide, with more than 90 percent with water	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Tert-Butyl hypochlorite	4.2	UN3255	I	Prohibited	Prohibited
N-n-Butyl imidazole	6.1	UN2690	II	Prohibited	Prohibited
Tert-Butyl isocyanate	6.1	UN2484	I	Prohibited	Prohibited
n-Butyl isocyanate	6.1	UN2485	I	Prohibited	Prohibited
Butyl mercaptans	3	UN2347	II	Prohibited	3A
n-Butyl methacrylate, stabilized	3	UN2227	III	Prohibited	3A
Butyl methyl ether	3	UN2350	II	Prohibited	3A
Butyl nitrites	3	UN2351	I, II, III	Prohibited	3A
tert-Butyl peroxyacetate, with more than 76 percent in solution	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
n-Butyl peroxydicarbonate, with more than 52 percent in solution	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
tert-Butyl peroxyisobutyrate, with more than 77 percent in solution	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Butyl phosphoric acid, see Butyl acid phosphate					
Butyl propionates	3	UN1914	III	Prohibited	3A
5-tert-Butyl-2,4,6-trinitro-m-xylene *or* Musk xylene	4.1	UN2956	III	Prohibited	Prohibited
Butyl vinyl ether, stabilized	3	UN2352	II	Prohibited	3A
n-Butylamine	3	UN1125	II	Prohibited	Prohibited
N-Butylaniline	6.1	UN2378	II	Prohibited	Prohibited
tert-Butylcyclohexylchloroformate	6.1	UN2747	III	6A	6A
Butylene *see also* Petroleum gases, liquified	2.1	UN1012	n/a	Prohibited	Prohibited
1,2-Butylene oxide, stabilized	3	UN3022	II	Prohibited	3A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Butyltoluenes	6.1	UN2667	III	6A	6A
Butyltrichlorosilane	8	UN1747	II	Prohibited	Prohibited
1,4-Butynediol	6.1	UN2716	III	Prohibited	Prohibited
Butyraldehyde	3	UN1129	II	Prohibited	3A
Butyraldoxime	3	UN2840	III	Prohibited	3A
Butyric acid	8	UN2820	III	8A	8A
Butyric anhydride	8	UN2739	III	8A	8A
Butyronitrile	3	UN2411	II	Prohibited	Prohibited
Butyryl chloride	3	UN2353	II	Prohibited	Prohibited
C					
Cacodylic acid	6.1	UN1572	II	Prohibited	Prohibited
Cadmium compounds	6.1	UN2570	I, II	Prohibited	Prohibited
Cadmium compounds	6.1	UN2570	III	6A	6A
Caesium hydroxide	8	UN2682	II	8A	8A
Caesium hydroxide solution	8	UN2681	II, III	8A	8A
Calcium	4.3	UN1401	II	Prohibited	4A
Calcium arsenate	6.1	UN1573	II	Prohibited	Prohibited
Calcium arsenate and calcium arsenite, mixtures, solid	6.1	UN1574	II	Prohibited	Prohibited
Calcium arsenite, solid	6.1	NA1574	II	Prohibited	Prohibited
Calcium bisulfite solution, see Bisulfites, aqueous solutions, n.o.s.					
Calcium carbide	4.3	UN1402	I	Prohibited	Prohibited
Calcium carbide	4.3	UN1402	II	Prohibited	4A
Calcium chlorate	5.1	UN1452	II	5A	5A
Calcium chlorate aqueous solution	5.1	UN2429	II, III	5A	5A
Calcium chlorite	5.1	UN1453	II	5A	5A
Calcium cyanamide *with more than* 0.1 percent of calcium carbide	4.3	UN1403	III	Prohibited	4A
Calcium cyanide	6.1	UN1575	I	Prohibited	Prohibited
Calcium dithionite *or* Calcium hydrosulfite	4.2	UN1923	II	Prohibited	Prohibited
Calcium hydride	4.3	UN1404	I	Prohibited	Prohibited
Calcium hydrosulfite, *see* Calcium dithionite					
Calcium hypochlorite, dry, corrosive *or* Calcium hypochlorite mixtures, dry, corrosive with more than 39 percent available chlorine (8.8 percent available oxygen)	5.1	UN3485	II	5A	5A
Calcium hypochlorite, dry *or* Calcium hypochlorite mixtures dry *with more than 39 percent available chlorine (8.8 percent available oxygen)*	5.1	UN1748	II	5A	5A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Calcium hypochlorite, hydrated, corrosive *or* Calcium hypochlorite, hydrated mixture, corrosive with not less than 5.5 percent but not more than 16 percent water	5.1	UN3487	II	5A	5A
Calcium hypochlorite, hydrated *or* Calcium hypochlorite, hydrated mixtures, *with not less than* 5.5 percent but not more than 16 percent water	5.1	UN2880	II, III	5A	5A
Calcium hypochlorite mixture, dry, corrosive with more than 10 percent but not more than 39 percent available chlorine	5.1	UN3486	III	5A	5A
Calcium hypochlorite mixtures, dry, *with more than 10 percent but not more than 39 percent available chlorine*	5.1	UN2208	III	5A	5A
Calcium manganese silicon	4.3	UN2844	III	Prohibited	4A
Calcium nitrate	5.1	UN1454	III	5A	5A
Calcium oxide	8	UN1910	III	8A	8A
Calcium perchlorate	5.1	UN1455	II	5A	5A
Calcium permanganate	5.1	UN1456	II	5A	5A
Calcium peroxide	5.1	UN1457	II	5A	5A
Calcium phosphide	4.3	UN1360	I	Prohibited	Prohibited
Calcium, pyrophoric *or* Calcium alloys, pyrophoric	4.2	UN1855	I	Prohibited	Prohibited
Calcium resinate	4.1	UN1313	III	Prohibited	Prohibited
Calcium resinate, fused	4.1	UN1314	III	Prohibited	Prohibited
Calcium selenate, see Selenates *or* Selenites					
Calcium silicide	4.3	UN1405	II, III	Prohibited	4A
Camphor oil	3	UN1130	III	Prohibited	3A
Camphor, *synthetic*	4.1	UN2717	III	Prohibited	Prohibited
Cannon primers, see Primers, tubular					
Capacitor, *electric double layer (with an energy storage capacity greater than 0.3 Wh)*	9	UN3499	n/a	Prohibited	9C
Caproic acid	8	UN2829	III	8A	8A
Caps, blasting, see Detonators, *etc.*					
Carbamate pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*	3	UN2758	I, II	Prohibited	Prohibited
Carbamate pesticides, liquid, toxic	6.1	UN2992	I, II	Prohibited	Prohibited
Carbamate pesticides, liquid, toxic	6.1	UN2992	III	6A	6A
Carbamate pesticide, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN2991	I, II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Carbamate pesticide, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN2991	III	6A	6A
Carbamate pesticides, solid, toxic	6.1	UN2757	I, II	Prohibited	Prohibited
Carbamate pesticides, solid, toxic	6.1	UN2757	III	6A	6A
Carbolic acid, see Phenol, solid *or* Phenol, molten					
Carbolic acid solutions, see Phenol solutions					
Carbon, *animal or vegetable origin*	4.2	UN1361	II, III	Prohibited	Prohibited
Carbon, activated	4.2	UN1362	III	Prohibited	Prohibited
Carbon bisulfide, see Carbon disulfide					
Carbon dioxide	2.2	UN1013	n/a	2B	2B
Carbon dioxide, refrigerated liquid	2.2	UN2187	n/a	2B	2B
Carbon dioxide, solid, *or* Dry ice	9	UN1845	III	9A	9A
Carbon disulfide	3	UN1131	I	Prohibited	Prohibited
Carbon monoxide, compressed	2.3	UN1016	n/a	Prohibited	Prohibited
Carbon monoxide, refrigerated liquid *(cryogenic liquid)*	2.3	NA9202	n/a	Prohibited	Prohibited
Carbon tetrabromide	6.1	UN2516	III	6A	6A
Carbon tetrachloride	6.1	UN1846	II	Prohibited	Prohibited
Carbonyl chloride, see Phosgene					
Carbonyl fluoride	2.3	UN2417	n/a	Prohibited	Prohibited
Carbonyl sulfide	2.3	UN2204	n/a	Prohibited	Prohibited
Cartridge cases, empty primed, see Cases, cartridge, empty, with primer					
Cartridges, actuating, for aircraft ejector seat catapult, fire extinguisher, canopy removal or apparatus, see Cartridges, power device					
Cartridges, explosive, see Charges, demolition					
Cartridges, flash	1.1G	UN0049	II	Prohibited	Prohibited
Cartridges, flash	1.3G	UN0050	II	Prohibited	Prohibited
Cartridges for weapons, blank	1.1C	UN0326	II	Prohibited	Prohibited
Cartridges for weapons, blank	1.2C	UN0413	II	Prohibited	Prohibited
Cartridges for weapons, blank *or* Cartridges, small arms, blank	1.3C	UN0327	II	Prohibited	Prohibited
Cartridges for weapons, blank *or* Cartridges, small arms, blank	1.4C	UN0338	II	Prohibited	Prohibited
Cartridges for weapons, blank *or* Cartridges, small arms, blank	1.4S	UN0014	II	Prohibited	Prohibited
Cartridges for weapons, inert projectile	1.2C	UN0328	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Cartridges for weapons, inert projectile *or* Cartridges, small arms	1.3C	UN0417	II	Prohibited	Prohibited
Cartridges for weapons, inert projectile *or* Cartridges, small arms	1.4C	UN0339	II	Prohibited	Prohibited
Cartridges for weapons, inert projectile *or* Cartridges, small arms	1.4S	UN0012	II	Prohibited	Prohibited
Cartridges for weapons, *with bursting charge*	1.1E	UN0006	II	Prohibited	Prohibited
Cartridges for weapons, *with bursting charge*	1.1F	UN0005	II	Prohibited	Prohibited
Cartridges for weapons, *with bursting charge*	1.2E	UN0321	II	Prohibited	Prohibited
Cartridges for weapons, *with bursting charge*	1.2F	UN0007	II	Prohibited	Prohibited
Cartridges for weapons, *with bursting charge*	1.4E	UN0412	II	Prohibited	Prohibited
Cartridges for weapons, *with bursting charge*	1.4F	UN0348	II	Prohibited	Prohibited
Cartridges, oil well	1.3C	UN0277	II	Prohibited	Prohibited
Cartridges, oil well	1.4C	UN0278	II	Prohibited	Prohibited
Cartridges, power device	1.2C	UN0381	II	Prohibited	Prohibited
Cartridges, power device	1.3C	UN0275	II	Prohibited	Prohibited
Cartridges, power device	1.4C	UN0276	II	Prohibited	Prohibited
Cartridges, power device	1.4S	UN0323	II	Prohibited	Prohibited
Cartridges, safety, blank, see Cartridges for weapons, blank *(UN0014)*					
Cartridges, safety, see Cartridges for weapons, *other than blank or Cartridges, power device (UN0323)*					
Cartridges, signal	1.3G	UN0054	II	Prohibited	Prohibited
Cartridges, signal	1.4G	UN0312	II	Prohibited	Prohibited
Cartridges, signal	1.4S	UN0405	II	Prohibited	Prohibited
Cartridges, small arms	Limited Quantity	Prohibited	Prohibited	Prohibited	Prohibited
Cartridges, sporting, see Cartridges for weapons, inert projectile, *or* Cartridges, small arms					
Cartridges, starter, jet engine, see Cartridges, power device					
Cases, cartridge, empty with primer	1.4S	UN0055	II	Prohibited	Prohibited
Cases, cartridges, empty with primer	1.4C	UN0379	II	Prohibited	Prohibited
Cases, combustible, empty, without primer	1.4C	UN0446	II	Prohibited	Prohibited
Cases, combustible, empty, without primer	1.3C	UN0447	II	Prohibited	Prohibited
Casinghead gasoline see Gasoline					

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Castor beans *or* Castor meal *or* Castor pomace *or* Castor flake	9	UN2969	II	Prohibited	9C
Caustic alkali liquids, n.o.s.	8	UN1719	II, III	8A	8A
Caustic potash, see Potassium hydroxide *etc.*					
Caustic soda, etc., see Sodium hydroxide *etc.*					
Cells, containing sodium	4.3	UN3292	II	Prohibited	Prohibited
Celluloid, *in block, rods, rolls, sheets, tubes, etc., except scrap*	4.1	UN2000	III	Prohibited	Prohibited
Celluloid, scrap	4.2	UN2002	III	Prohibited	Prohibited
Cement, see Adhesives, *containing flammable liquid*					
Cerium, *slabs, ingots, or rods*	4.1	UN1333	II	Prohibited	Prohibited
Cerium, *turnings or gritty powder*	4.3	UN3078	II	Prohibited	4A
Cesium *or* Caesium	4.3	UN1407	I	Prohibited	Prohibited
Cesium nitrate *or* Caesium nitrate	5.1	UN1451	III	5A	5A
Charcoal *briquettes, shell, screenings, wood, etc.*	4.2	NA1361	III	Prohibited	4A
Charges, bursting, plastics bonded	1.1D	UN0457	II	Prohibited	Prohibited
Charges, bursting, plastics bonded	1.2D	UN0458	II	Prohibited	Prohibited
Charges, bursting, plastics bonded	1.4D	UN0459	II	Prohibited	Prohibited
Charges, bursting, plastics bonded	1.4S	UN0460	II	Prohibited	Prohibited
Charges, demolition	1.1D	UN0048	II	Prohibited	Prohibited
Charges, depth	1.1D	UN0056	II	Prohibited	Prohibited
Charges, expelling, explosive, for fire extinguishers, see Cartridges,power device					
Charges, explosive, commercial *without detonator*	1.1D	UN0442	II	Prohibited	Prohibited
Charges, explosive, commercial *without detonator*	1.2D	UN0443	II	Prohibited	Prohibited
Charges, explosive, commercial *without detonator*	1.4D	UN0444	II	Prohibited	Prohibited
Charges, explosive, commercial *without detonator*	1.4S	UN0445	II	Prohibited	Prohibited
Charges, propelling	1.1C	UN0271	II	Prohibited	Prohibited
Charges, propelling	1.2C	UN0415	II	Prohibited	Prohibited
Charges, propelling	1.3C	UN0272	II	Prohibited	Prohibited
Charges, propelling	1.4C	UN0491	II	Prohibited	Prohibited
Charges, propelling, for cannon	1.1C	UN0279	II	Prohibited	Prohibited
Charges, propelling, for cannon	1.2C	UN0414	II	Prohibited	Prohibited
Charges, propelling, for cannon	1.3C	UN0242	II	Prohibited	Prohibited
Charges, shaped, *without detonator*	1.1D	UN0059	II	Prohibited	Prohibited
Charges, shaped, *without detonator*	1.2D	UN0439	II	Prohibited	Prohibited
Charges, shaped, *without detonator*	1.4D	UN0440	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Charges, shaped, *without detonator*	1.4S	UN0441	II	Prohibited	Prohibited
Charges, shaped, flexible, linear	1.1D	UN0288	II	Prohibited	Prohibited
Charges, shaped, flexible, linear	1.4D	UN0237	II	Prohibited	Prohibited
Charges, supplementary explosive	1.1D	UN0060	II	Prohibited	Prohibited
Chemical kit	8	NA1760	II	8A	8A
Chemical kits	9	UN3316	II, III	9C	9C
Chemical under pressure, corrosive, n.o.s.	2.1	UN3503	n/a	Prohibited	2B
Chemical under pressure, flammable, corrosive, n.o.s.	2.1	UN3505	Prohibited	Prohibited	Prohibited
Chemical under pressure, flammable, n.o.s.	2.1	UN3501	Prohibited	Prohibited	Prohibited
Chemical under pressure, flammable, toxic, n.o.s.	2.1	UN3504	Prohibited	Prohibited	Prohibited
Chemical under pressure, n.o.s	2.2	UN3500	Prohibited	Prohibited	2B
Chemical under pressure, toxic, n.o.s	2.2	UN3502	Prohibited	Prohibited	2B
Chloral, anhydrous, inhibited	6.1	UN2075	II	Prohibited	Prohibited
Chlorate and borate mixtures	5.1	UN1458	II, III	5A	5A
Chlorate and magnesium chloride mixture solid	5.1	UN1459	II	5A	5A
Chlorate and magnesium chloride mixture solution	5.1	UN3407	II, III	5A	5A
Chlorate of potash, see Potassium chlorate					
Chlorate of soda, see Sodium chlorate					
Chlorates, inorganic, aqueous solutions, n.o.s.	5.1	UN3210	II, III	5A	5A
Chlorates, inorganic, n.o.s.	5.1	UN1461	II	5A	5A
Chloric acid aqueous solution, *with not more than 10 percent chloric acid*	5.1	UN2626	II	Prohibited	Prohibited
Chloride of phosphorus, see Phosphorus trichloride					
Chloride of sulfur, see Sulfur chloride					
Chlorinated lime, see Calcium hypochlorite mixtures, *etc.*					
Chlorine	2.3	UN1017	n/a	Prohibited	Prohibited
Chlorine azide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Chlorine dioxide (not hydrate)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Chlorine dioxide, hydrate, frozen	5.1	NA9191	II	Prohibited	Prohibited
Chlorine pentafluoride	2.3	UN2548	n/a	Prohibited	Prohibited
Chlorine trifluoride	2.3	UN1749	n/a	Prohibited	Prohibited
Chlorite solution	8	UN1908	II, III	8A	8A
Chlorites, inorganic, n.o.s.	5.1	UN1462	II	5A	5A

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1-Chloro-1,1-difluoroethane *or* Refrigerant gas R 142b	2.1	UN2517	n/a	Prohibited	2A
3-Chloro-4-methylphenyl isocyanate, liquid	6.1	UN2236	II	Prohibited	Prohibited
3-Chloro-4-methylphenyl isocyanate, solid	6.1	UN3428	II	Prohibited	Prohibited
1-Chloro-1,2,2,2-tetrafluoroethane *or* Refrigerant gas R 124	2.2	UN1021	n/a	2B	2B
4-Chloro-o-toluidine hydrochloride, solid	6.1	UN1579	III	6A	6A
4-Chloro-o-toluidine hydrochloride, solution	6.1	UN3410	III	6A	6A
1-Chloro-2,2,2-trifluoroethane *or* Refrigerant gas R 133a	2.2	UN1983	n/a	2B	2B
Chloroacetic acid, molten	6.1	UN3250	II	Prohibited	Prohibited
Chloroacetic acid, solid	6.1	UN1751	II	Prohibited	Prohibited
Chloroacetic acid, solution	6.1	UN1750	II	Prohibited	Prohibited
Chloroacetone, stabilized	6.1	UN1695	I	Prohibited	Prohibited
Chloroacetone (unstabilized)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Chloroacetonitrile	6.1	UN2668	II	Prohibited	Prohibited
Chloroacetophenone *(CN), liquid*	6.1	UN3416	II	Prohibited	Prohibited
Chloroacetophenone *(CN), solid*	6.1	UN1697	II	Prohibited	Prohibited
Chloroacetyl chloride	6.1	UN1752	I	Prohibited	Prohibited
Chloroanilines, liquid	6.1	UN2019	II	Prohibited	Prohibited
Chloroanilines, solid	6.1	UN2018	II	Prohibited	Prohibited
Chloroanisidines	6.1	UN2233	III	6A	6A
Chlorobenzene	3	UN1134	III	Prohibited	3A
Chlorobenzol, see Chlorobenzene					
Chlorobenzotrifluorides	3	UN2234	III	Prohibited	3A
Chlorobenzyl chlorides, liquid	6.1	UN2235	III	6A	6A
Chlorobenzyl chlorides, solid	6.1	UN3427	III	6A	6A
Chlorobutanes	3	UN1127	II	Prohibited	3A
Chlorocresols, *solution*	6.1	UN2669	II, III	Prohibited	Prohibited
Chlorocresols, *solid*	6.1	UN3437	II	Prohibited	Prohibited
Chlorodifluorobromomethane *or* Refrigerant gas R 12B1	2.2	UN1974	n/a	2B	2B
Chlorodifluoromethane *or* Refrigerant gas R 22	2.2	UN1018	n/a	2B	2B
Chlorodifluoromethane and chloropentafluoroethane mixture *or* Refrigerant gas R 502 *with fixed boiling point, with approximately 49 percent chlorodifluoromethane*	2.2	UN1973	n/a	2B	2B
Chlorodinitrobenzenes, liquid	6.1	UN1577	II	Prohibited	Prohibited
Chlorodinitrobenzenes, solid	6.1	UN3441	II	Prohibited	Prohibited
2-Chloroethanal	6.1	UN2232	I	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Chloroform	6.1	UN1888	III	6A	6A
Chloroformates, toxic, corrosive, flammable, n.o.s.	6.1	UN2742	II	Prohibited	Prohibited
Chloroformates, toxic, corrosive, n.o.s.	6.1	UN3277	II	Prohibited	Prohibited
Chloromethyl chloroformate	6.1	UN2745	II	Prohibited	Prohibited
Chloromethyl ethyl ether	3	UN2354	II	Prohibited	Prohibited
Chloronitroanilines	6.1	UN2237	III	6A	6A
Chloronitrobenzene, *liquid*	6.1	UN3409	II	Prohibited	Prohibited
Chloronitrobenzenes, *solid*	6.1	UN1578	II	Prohibited	Prohibited
Chloronitrotoluenes, *liquid*	6.1	UN2433	III	6A	6A
Chloronitrotoluenes, *solid*	6.1	UN3457	III	6A	6A
Chloropentafluoroethane *or* Refrigerant gas R 115	2.2	UN1020	n/a	2B	2B
Chlorophenolates, liquid *or* Phenolates, liquid	8	UN2904	III	8A	8A
Chlorophenolates, solid *or* Phenolates, solid	8	UN2905	III	8A	8A
Chlorophenols, liquid	6.1	UN2021	III	6A	6A
Chlorophenols, solid	6.1	UN2020	III	6A	6A
Chlorophenyltrichlorosilane	8	UN1753	II	Prohibited	Prohibited
Chloropicrin	6.1	UN1580	I	Prohibited	Prohibited
Chloropicrin and methyl bromide mixtures	2.3	UN1581	n/a	Prohibited	Prohibited
Chloropicrin and methyl chloride mixtures	2.3	UN1582	n/a	Prohibited	Prohibited
Chloropicrin mixture, flammable (pressure not exceeding 14.7 psia at 115° F flashpoint below 100° F) see Toxic liquids, flammable, *etc.*					
Chloropicrin mixtures, n.o.s.	6.1	UN1583	I, II, III	Prohibited	Prohibited
Chloropivaloyl chloride	6.1	NA9263	I	Prohibited	Prohibited
Chloroplatinic acid, solid	8	UN2507	III	8A	8A
Chloroprene, stabilized	3	UN1991	I	Prohibited	Prohibited
Chloroprene, uninhibited	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
1-Chloropropane	3	UN1278	II	Prohibited	Prohibited
2-Chloropropane	3	UN2356	I	Prohibited	3A
3-Chloropropanol-1	6.1	UN2849	III	6A	6A
2-Chloropropene	3	UN2456	I	Prohibited	3A
2-Chloropropionic acid	8	UN2511	III	8A	8A
2-Chloropyridine	6.1	UN2822	II	Prohibited	Prohibited
Chlorosilanes, corrosive, flammable, n.o.s.	8	UN2986	II	Prohibited	Prohibited
Chlorosilanes, corrosive, n.o.s.	8	UN2987	II	8A	8A
Chlorosilanes, flammable, corrosive, n.o.s.	3	UN2985	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Chlorosilanes, toxic, corrosive, flammable, n.o.s.	6.1	UN3362	II	Prohibited	Prohibited
Chlorosilanes, toxic, corrosive, n.o.s.	6.1	UN3361	II	Prohibited	Prohibited
Chlorosilanes, water-reactive, flammable, corrosive, n.o.s.	4.3	UN2988	I	Prohibited	Prohibited
Chlorosulfonic acid *(with or without sulfur trioxide)*	8	UN1754	I	Prohibited	Prohibited
Chlorotoluenes	3	UN2238	III	Prohibited	3A
Chlorotoluidines, *liquid*	6.1	UN3429	III	6A	6A
Chlorotoluidines, *solid*	6.1	UN2239	III	6A	6A
Chlorotrifluoromethane *or* Refrigerant gas R 13	2.2	UN1022	n/a	2B	2B
Chlorotrifluoromethane and trifluoromethane azeotropic mixture *or* Refrigerant gas R 503 *with approximately 60 percent chlorotrifluoromethane*	2.2	UN2599	n/a	2B	2B
Chromic acid, solid	5.1	NA1463	II	Prohibited	Prohibited
Chromic acid solution	8	UN1755	II, III	8A	8A
Chromic anhydride, see Chromium trioxide, anhydrous					
Chromic fluoride, solid	8	UN1756	II	8A	8A
Chromic fluoride, solution	8	UN1757	II, III	8A	8A
Chromium nitrate	5.1	UN2720	III	5A	5A
Chromium oxychloride	8	UN1758	I	Prohibited	Prohibited
Chromium trioxide, anhydrous	5.1	UN1463	II	Prohibited	Prohibited
Chromosulfuric acid	8	UN2240	I	Prohibited	Prohibited
Chromyl chloride, see Chromium oxychloride					
Cigar and cigarette lighters, charged with fuel, see Lighters or Lighter refills *containing flammable gas*					
Coal briquettes, hot	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Coal gas, compressed	2.3	UN1023	n/a	Prohibited	Prohibited
Coal tar distillates, flammable	3	UN1136	II, III	Prohibited	3A
Coal tar dye, corrosive, liquid, n.o.s., see Dyes, liquid or solid, n.o.s. *or* Dye intermediates, liquid or solid, n.o.s., *corrosive*					
Coating solution *(includes surface treatments or coatings used for industrial or other purposes such as vehicle undercoating, drum or barrel lining)*	3	UN1139	I, II, III	Prohibited	3A
Cobalt, dihydroxide powder, containing no less than 10% respirable particles	6.1	UN3550	I	Prohibited	
Cobalt naphthenates, powder	4.1	UN2001	III	Prohibited	4A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Cobalt resinate, precipitated	4.1	UN1318	III	Prohibited	4A
Coke, hot	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Collodion, see Nitrocellulose *etc.*					
Combustible liquid, n.o.s.	3	NA1993	III	Mailable only per 343	3B
Components, explosive train, n.o.s.	1.1B	UN0461	II	Prohibited	Prohibited
Components, explosive train, n.o.s.	1.2B	UN0382	II	Prohibited	Prohibited
Components, explosive train, n.o.s.	1.4B	UN0383	II	Prohibited	Prohibited
Components, explosive train, n.o.s.	1.4S	UN0384	II	Prohibited	Prohibited
Composition B, see Hexolite, *etc.*					
Compounds, cleaning liquid	8	NA1760	I	Prohibited	Prohibited
Compounds, cleaning liquid	8	NA1760	II, III	8A	8A
Compounds, cleaning liquid	3	NA1993	I, II, III	8A	8A
Compounds, tree killing liquid *or* Compounds, weed killing, liquid	3	NA1993	I, II, III	Prohibited	3A
Compounds, tree killing liquid *or* Compounds, weed killing, liquid	6.1	NA2810	I, II	Prohibited	Prohibited
Compounds, tree killing liquid *or* Compounds, weed killing, liquid	6.1	NA2810	III	6A	6A
Compounds, tree killing liquid *or* Compounds, weed killing, liquid	8	NA1760	I	Prohibited	Prohibited
Compounds, tree killing liquid *or* Compounds, weed killing, liquid	8	NA1760	II, III	8A	8A
Compressed gas, flammable, n.o.s.	2.1	UN1954	n/a	Prohibited	2A
Compressed gas, n.o.s.	2.2	UN1956	n/a	2B	2B
Compressed gas, oxidizing, n.o.s.	2.2	UN3156	n/a	2B	2B
Compressed gas, toxic, n.o.s. *Inhalation Hazard Zone A, B, C, or D*	2.3	UN1955	n/a	Prohibited	Prohibited
Compressed gas, toxic, corrosive, n.o.s. *Inhalation Hazard Zone A, B, C, or D*	2.3	UN3304	n/a	Prohibited	Prohibited
Compressed gas, toxic, flammable, n.o.s. *Inhalation Hazard Zone A, B, C, or D*	2.3	UN1953	n/a	Prohibited	Prohibited
Compressed gas, toxic, flammable, corrosive, n.o.s. *Inhalation Hazard Zone A, B, C, or D*	2.3	UN3305	n/a	Prohibited	Prohibited
Compressed gas, toxic, oxidizing, corrosive, n.o.s. *Inhalation Hazard Zone A, B, C, or D*	2.3	UN3306	n/a	Prohibited	Prohibited
Compressed gas, toxic, oxidizing, n.o.s. *Inhalation Hazard Zone A, B, C, or D*	2.3	UN3303	n/a	Prohibited	Prohibited
Consumer Commodity	Limited Quantity	n/a	n/a	See section 334	See sections 333 and 336

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Consumer Commodity	9	ID8000	n/a	n/a	See section 335
Contrivances, water-activated, *with burster, expelling charge, or propelling charge*	1.2L	UN0248	II	Prohibited	Prohibited
Contrivances, water-activated, *with burster, expelling charge, or propelling charge*	1.3L	UN0249	II	Prohibited	Prohibited
Copper acetoarsenite	6.1	UN1585	II	Prohibited	Prohibited
Copper acetylide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Copper amine azide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Copper arsenite	6.1	UN1586	II	Prohibited	Prohibited
Copper based pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*	3	UN2776	I, II	Prohibited	Prohibited
Copper based pesticides, liquid, toxic	6.1	UN3010	I, II	Prohibited	Prohibited
Copper based pesticides, liquid, toxic	6.1	UN3010	III	6A	6A
Copper based pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN3009	I, II	Prohibited	Prohibited
Copper based pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN3009	III	6A	6A
Copper based pesticides, solid, toxic	6.1	UN2775	I, II	Prohibited	Prohibited
Copper based pesticides, solid, toxic	6.1	UN2775	III	6A	6A
Copper chlorate	5.1	UN2721	II	5A	5A
Copper chloride	8	UN2802	III	8A	8A
Copper cyanide	6.1	UN1587	II	Prohibited	Prohibited
Copper selenate, see Selenates *or* Selenites					
Copper selenite, see Selenates *or* Selenites					
Copper tetramine nitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Copra	4.2	UN1363	III	Prohibited	Prohibited
Cord, detonating *or* Fuse, detonating *metal clad*	1.1D	UN0290	II	Prohibited	Prohibited
Cord detonating *or* Fuse detonating *metal clad*	1.2D	UN0102	II	Prohibited	Prohibited
Cord, detonating, *flexible*	1.1D	UN0065	II	Prohibited	Prohibited
Cord, detonating, *flexible*	1.4D	UN0289	II	Prohibited	Prohibited
Cord, detonating, mild effect *or* Fuse, detonating, mild effect *metal clad*	1.4D	UN0104	II	Prohibited	Prohibited
Cord, igniter	1.4G	UN0066	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Cordeau detonat fuse, see Cord, detonating, *etc.;* Cord, detonating, *flexible*					
Cordite, see Powder, smokeless					
Corrosive liquid, acidic, inorganic, n.o.s.	8	UN3264	I	Prohibited	Prohibited
Corrosive liquid, acidic, inorganic, n.o.s.	8	UN3264	II, III	8A	8A
Corrosive liquid, acidic, organic, n.o.s.	8	UN3265	I	Prohibited	Prohibited
Corrosive liquid, acidic, organic, n.o.s.	8	UN3265	II, III	8A	8A
Corrosive liquid, basic, inorganic, n.o.s.	8	UN3266	I	Prohibited	Prohibited
Corrosive liquid, basic, inorganic, n.o.s	8	UN3266	II, III	8A	8A
Corrosive liquid, basic, organic, n.o.s.	8	UN3267	I	Prohibited	Prohibited
Corrosive liquid, basic, organic, n.o.s.	8	UN3267	II, III	8A	8A
Corrosive liquids, flammable, n.o.s.	8	UN2920	I, II	Prohibited	Prohibited
Corrosive liquids, n.o.s.	8	UN1760	I	Prohibited	Prohibited
Corrosive liquids, n.o.s.	8	UN1760	II, III	8A	8A
Corrosive liquids, oxidizing, n.o.s.	8	UN3093	I, II	Prohibited	Prohibited
Corrosive liquids, self-heating, n.o.s.	8	UN3301	I	Prohibited	Prohibited
Corrosive liquids, self-heating, n.o.s.	8	UN3301	II	8A	8A
Corrosive liquids, toxic, n.o.s.	8	UN2922	I, II	Prohibited	Prohibited
Corrosive liquids, toxic, n.o.s.	8	UN2922	III	8A	8A
Corrosive liquids, water-reactive, n.o.s.	8	UN3094	I, II	Prohibited	Prohibited
Corrosive solid, acidic, inorganic, n.o.s.	8	UN3260	I	Prohibited	Prohibited
Corrosive solid, acidic, inorganic, n.o.s.	8	UN3260	II, III	8A	8A
Corrosive solid, acidic, organic, n.o.s.	8	UN3261	I	Prohibited	Prohibited
Corrosive solid, acidic, organic, n.o.s.	8	UN3261	II, III	8A	8A
Corrosive solid, basic, inorganic, n.o.s.	8	UN3262	I	Prohibited	Prohibited
Corrosive solid, basic, inorganic, n.o.s.	8	UN3262	II, III	8A	8A
Corrosive solid, basic, organic, n.o.s.	8	UN3263	I	Prohibited	Prohibited
Corrosive solid, basic, organic, n.o.s.	8	UN3263	II, III	8A	8A
Corrosive solids, flammable, n.o.s.	8	UN2921	I, II	Prohibited	Prohibited
Corrosive solids, n.o.s.	8	UN1759	I	Prohibited	Prohibited
Corrosive solids, n.o.s.	8	UN1759	II, III	8A	8A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Corrosive solids, oxidizing, n.o.s.	8	UN3084	I, II	Prohibited	Prohibited
Corrosive solids, self-heating, n.o.s.	8	UN3095	I, II	Prohibited	Prohibited
Corrosive solids, toxic, n.o.s.	8	UN2923	I, II	Prohibited	Prohibited
Corrosive solids, toxic, n.o.s.	8	UN2923	III	8A	8A
Corrosive solids, water-reactive, n.o.s.	8	UN3096	I, II	Prohibited	Prohibited
Cotton	9	NA1365	n/a	Prohibited	Prohibited
Cotton waste, oily	4.2	UN1364	III	Prohibited	Prohibited
Cotton, wet	4.2	UN1365	III	Prohibited	Prohibited
Coumarin derivative pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*	3	UN3024	I, II	Prohibited	Prohibited
Coumarin derivative pesticides, liquid, toxic	6.1	UN3026	I, II	Prohibited	Prohibited
Coumarin derivative pesticides, liquid, toxic	6.1	UN3026	III	6A	6A
Coumarin derivative pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN3025	I, II	Prohibited	Prohibited
Coumarin derivative pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN3025	III	6A	6A
Coumarin derivative pesticides, solid, toxic	6.1	UN3027	I, II	Prohibited	Prohibited
Coumarin derivative pesticides, solid, toxic	6.1	UN3027	III	6A	6A
Cresols, liquid	6.1	UN2076	II	Prohibited	Prohibited
Cresols, solid	6.1	UN3455	II	Prohibited	Prohibited
Cresylic acid	6.1	UN2022	II	Prohibited	Prohibited
Crotonaldehyde *or* Crotonaldehyde, stabilized	6.1	UN1143	I	Prohibited	Prohibited
Crotonic acid, *liquid*	8	UN3472	III	8A	8A
Crotonic acid, *solid*	8	UN2823	III	8A	8A
Crotonylene	3	UN1144	I	Prohibited	3A
Cupriethylenediamine solution	8	UN1761	II	Prohibited	Prohibited
Cupriethylenediamine solution	8	UN1761	III	8A	8A
Cutters, cable, explosive	1.4S	UN0070	II	Prohibited	Prohibited
Cyanide, or cyanide mixtures, dry, see Cyanides, inorganic, solid, n.o.s.					
Cyanide solutions, n.o.s.	6.1	UN1935	I, II	Prohibited	Prohibited
Cyanide solutions, n.o.s.	6.1	UN1935	III	6A	6A
Cyanides, inorganic, solid, n.o.s.	6.1	UN1588	I, II	Prohibited	Prohibited
Cyanides, inorganic, solid, n.o.s.	6.1	UN1588	III	6A	6A
Cyanogen	2.3	UN1026	n/a	Prohibited	Prohibited
Cyanogen bromide	6.1	UN1889	I	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Cyanogen chloride, stabilized	2.3	UN1589	n/a	Prohibited	Prohibited
Cyanuric chloride	8	UN2670	II	Prohibited	Prohibited
Cyanuric triazide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Cyclobutane	2.1	UN2601	n/a	Prohibited	2A
Cyclobutyl chloroformate	6.1	UN2744	II	Prohibited	Prohibited
1,5,9-Cyclododecatriene	6.1	UN2518	III	6A	6A
Cycloheptane	3	UN2241	II	Prohibited	3A
Cycloheptatriene	3	UN2603	II	Prohibited	Prohibited
Cycloheptene	3	UN2242	II	Prohibited	3A
Cyclohexane	3	UN1145	II	Prohibited	3A
Cyclohexanone	3	UN1915	III	Prohibited	3A
Cyclohexene	3	UN2256	II	Prohibited	3A
Cyclohexenyltrichlorosilane	8	UN1762	II	Prohibited	Prohibited
Cyclohexyl acetate	3	UN2243	III	Prohibited	3A
Cyclohexyl isocyanate	6.1	UN2488	I	Prohibited	Prohibited
Cyclohexyl mercaptan	3	UN3054	III	Prohibited	3A
Cyclohexylamine	8	UN2357	II	Prohibited	Prohibited
Cyclohexyltrichlorosilane	8	UN1763	II	Prohibited	Prohibited
Cyclonite and cyclotetramethylenetetranitramine mixtures, wetted *or* desensitized *see* RDX and HMX mixtures, wetted *or* desensitized, *etc.*					
Cyclonite and HMX mixtures, wetted *or* desensitized *see* RDX and HMX mixtures, wetted *or* desensitized *etc.*					
Cyclonite and octogen mixtures, wetted *or* desensitized *see* RDX and HMX mixtures, wetted *or* desensitized *etc.*					
Cyclonite, *see* cyclotrimethylenetrinitramine, *etc.*					
Cyclooctadiene phosphines, *see* 9-Phosphabicyclononanes					
Cyclooctadienes	3	UN2520	III	Prohibited	3A
Cyclooctatetraene	3	UN2358	II	Prohibited	3A
Cyclopentane	3	UN1146	II	Prohibited	3A
Cyclopentane, methyl, see Methylcyclopentane					
Cyclopentanol	3	UN2244	III	Prohibited	3A
Cyclopentanone	3	UN2245	III	Prohibited	3A
Cyclopentene	3	UN2246	II	Prohibited	3A
Cyclopropane	2.1	UN1027	n/a	Prohibited	2A
Cyclotetramethylene tetranitramine (dry or unphlegmatized) (HMX)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Cyclotetramethylenetetranitramine, desensitized *or* Octogen, desensitized *or* HMX, desensitized	1.1D	UN0484	II	Prohibited	Prohibited
Cyclotetramethylenetetranitramine, wetted *or* HMX, wetted *or* Octogen, wetted *with not less than 15 percent water, by mass*	1.1D	UN0226	II	Prohibited	Prohibited
Cyclotrimethylenenitramine and octogen, mixtures, wetted *or* desensitized *see* RDX and HMX mixtures, wetted *or* desensitized *etc.*					
Cyclotrimethylenetrinitramine and cyclotetramethylenetetranitramine mixtures, wetted *or* desensitized *see* RDX and HMX mixtures, wetted *or* desensitized *etc.*					
Cyclotrimethylenetrinitramine and HMX mixtures, wetted *or* desensitized *see* RDX and HMX mixtures, wetted *or* desensitized *etc.*					
Cyclotrimethylenetrinitramine, desensitized *or* Cyclonite, desensitized *or* Hexogen, desensitized *or* RDX, desensitized	1.1D	UN0483	II	Prohibited	Prohibited
Cyclotrimethylenetrinitramine, wetted *or* Cyclonite, wetted *or* Hexogen, wetted *or* RDX, wetted *with not less than 15 percent water by mass*	1.1D	UN0072	II	Prohibited	Prohibited
Cymenes	3	UN2046	III	Prohibited	3A
D					
Dangerous Goods in Machinery *or* Dangerous Goods in Apparatus	9	UN3363	n/a	Prohibited	Prohibited
Decaborane	4.1	UN1868	II	Prohibited	Prohibited
Decahydronaphthalene	3	UN1147	III	Prohibited	3A
n-Decane	3	UN2247	III	Prohibited	3A
Deflagrating metal salts of aromatic nitroderivatives, n.o.s.	1.3C	UN0132	II	Prohibited	Prohibited
Delay electric igniter, see Igniters					
Denatured alcohol	3	NA1987	II, III	Prohibited	3A
Depth charges, see Charges, depth					
Desensitized explosive, liquid, n.o.s.	3	UN3379	I	Prohibited	Prohibited
Desensitized explosive, solid, n.o.s.	4.1	UN3380	I	Prohibited	Prohibited
Detonating relays, see Detonators, etc.					
Detonator assemblies, non-electric *for blasting*	1.1B	UN0360	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Detonator assemblies, non-electric *for blasting*	1.4B	UN0361	II	Prohibited	Prohibited
Detonator assemblies, non-electric *for blasting*	1.4S	UN0500	II	Prohibited	Prohibited
Detonators, electric, *for blasting*	1.1B	UN0030	II	Prohibited	Prohibited
Detonators, electric, *for blasting*	1.4B	UN0255	II	Prohibited	Prohibited
Detonators, electric, *for blasting*	1.4S	UN0456	II	Prohibited	Prohibited
Detonators for ammunition	1.1B	UN0073	II	Prohibited	Prohibited
Detonators for ammunition	1.2B	UN0364	II	Prohibited	Prohibited
Detonators for ammunition	1.4B	UN0365	II	Prohibited	Prohibited
Detonators for ammunition	1.4S	UN0366	II	Prohibited	Prohibited
Detonators, non-electric, *for blasting*	1.1B	UN0029	II	Prohibited	Prohibited
Detonators, non-electric, *for blasting*	1.4B	UN0267	II	Prohibited	Prohibited
Detonators, non-electric, *for blasting*	1.4S	UN0455	II	Prohibited	Prohibited
Deuterium, compressed	2.1	UN1957	n/a	Prohibited	2A
Devices, small, hydrocarbon gas powered *or* Hydrocarbon gas refills for small devices *with release device*	2.1	UN3150	n/a	Prohibited	2A
Di-n-amylamine	3	UN2841	III	Prohibited	3A
Di-n-butyl peroxydicarbonate, with more than 52 percent in solution	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Di-n-butylamine	8	UN2248	II	Prohibited	Prohibited
2,2-Di-(tert-butylperoxy) butane, with more than 55 percent in solution	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
D-i(tert-butylperoxy) phthalate, with more than 55 percent in solution	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
2,2-Di-(4,4-di-tert-butylperoxycyclohexyl) propane, with more than 42 percent with inert solid	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
D-i2,4-dichlorobenzoyl peroxide, with more than 75 percent with water	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
1,2-Di-(dimethylamino)ethane	3	UN2372	II	Prohibited	3A
Di-2-ethylhexyl phosphoric acid, see Diisooctyl acid phosphate					
Di-(1-hydroxytetrazole) (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Di-(1-naphthoyl) peroxide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Di-(beta-nitroxyethyl) ammonium nitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
a,a'-Di-(nitroxy) methylether	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Diacetone alcohol	3	UN1148	II, III	Prohibited	3A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Diacetone alcohol peroxides, with more than 57 percent in solution with more than 9 percent hydrogen peroxide, less than 26 percent diacetone alcohol and less than 9 percent water; total active oxygen content more than 9 percent by mass	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Diacetyl, see Butanedione					
Diacetyl peroxide, solid, or with more than 25 percent in solution	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Diallylamine	3	UN2359	II	Prohibited	Prohibited
Diallylether	3	UN2360	II	Prohibited	Prohibited
4,4'-Diaminodiphenyl methane	6.1	UN2651	III	6A	6A
p-Diazidobenzene	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
1,2-Diazidoethane	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
1,1'-Diazoaminonaphthalene	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Diazoaminotetrazole (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Diazodinitrophenol (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Diazodinitrophenol, wetted *with not less than 40 percent water or mixture of alcohol and water, by mass*	1.1A	UN0074	II	Prohibited	Prohibited
Diazodiphenylmethane	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Diazonium nitrates (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Diazonium perchlorates (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
1,3-Diazopropane	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Dibenzyl peroxydicarbonate, with more than 87 percent with water	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Dibenzyldichlorosilane	8	UN2434	II	8A	8A
Diborane	2.3	UN1911	n/a	Prohibited	Prohibited
Diborane mixtures	2.1	NA1911	n/a	Prohibited	Prohibited
Dibromoacetylene	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
1,2-Dibromobutan-3-one	6.1	UN2648	II	Prohibited	Prohibited
Dibromochloropropane	6.1	UN2872	III	6A	6A
Dibromodifluoromethane, *R12B2*	9	UN1941	III	9C	9C
1,2-Dibromoethane, see Ethylene dibromide					
Dibromomethane	6.1	UN2664	III	6A	6A
Dibutyl ethers	3	UN1149	III	Prohibited	3B
Dibutylaminoethanol	6.1	UN2873	III	6A	6A
N,N'-Dichlorazodicarbonamidine (salts of) (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
1,1-Dichloro-1-nitroethane	6.1	UN2650	II	Prohibited	Prohibited
3,5-Dichloro-2,4,6-trifluoropyridine	6.1	NA9264	I	Prohibited	Prohibited
Dichloroacetic acid	8	UN1764	II	8A	8A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
1,3-Dichloroacetone	6.1	UN2649	II	Prohibited	Prohibited
Dichloroacetyl chloride	8	UN1765	II	8A	8A
Dichloroacetylene	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Dichloroanilines, liquid	6.1	UN1590	II	Prohibited	Prohibited
Dichloroanilines, solid	6.1	UN3442	II	Prohibited	Prohibited
o-Dichlorobenzene	6.1	UN1591	III	6A	6A
Dichlorobutene	8	NA2920	I	Prohibited	Prohibited
2,2'-Dichlorodiethyl ether	6.1	UN1916	II	Prohibited	Prohibited
Dichlorodifluoromethane *or* Refrigerant gas R 12	2.2	UN1028	n/a	2B	2B
Dichlorodifluoromethane and difluoroethane azeotropic mixture *or* Refrigerant gas R 500 *with approximately 74 percent dichlorodifluoromethane*	2.2	UN2602	n/a	2B	2B
Dichlorodimethyl ether, symmetrical	6.1	UN2249	I	Prohibited	Prohibited
1,1-Dichloroethane	3	UN2362	II	Prohibited	3A
1,2-Dichloroethane, see Ethylene dichloride					
Dichloroethyl sulfide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
1,2-Dichloroethylene	3	UN1150	II	Prohibited	3A
Dichlorofluoromethane *or* Refrigerant gas R 21	2.2	UN1029	n/a	2B	2B
Dichloroisocyanuric acid, dry *or* Dichloroisocyanuric acid salts	5.1	UN2465	II	5A	5A
Dichlorodisopropyl ether	6.1	UN2490	II	Prohibited	Prohibited
Dichloromethane	6.1	UN1593	III	6A	6A
Dichloropentanes	3	UN1152	III	Prohibited	3A
Dichlorophenyl isocyanates	6.1	UN2250	II	Prohibited	Prohibited
Dichlorophenyltrichlorosilane	8	UN1766	II	Prohibited	Prohibited
1,2-Dichloropropane	3	UN1279	II	Prohibited	3A
1,3-Dichloropropanol2	6.1	UN2750	II	Prohibited	Prohibited
Dichloropropene and propylene dichloride mixture, see 1,2-Dichloropropane					
Dichloropropenes	3	UN2047	II, III	Prohibited	3A
Dichlorosilane	2.3	UN2189	n/a	Prohibited	Prohibited
1,2-Dichloro-1,1,2,2-Tetrafluoroethane *or* Refrigerant gas R 114	2.2	UN1958	n/a	2B	2B
Dichlorovinylchloroarsine	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Dicycloheptadiene, see Bicyclo [2,2,1]hepta-2,5-diene, stabilized					
Dicyclohexylamine	8	UN2565	III	8A	8A
Dicyclohexylammonium nitrate	4.1	UN2687	III	Prohibited	4A
Dicyclopentadiene	3	UN2048	III	Prohibited	3A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Didymium nitrate	5.1	UN1465	III	5A	5A
Diesel fuel	3	NA1993 UN1202	III	Prohibited	3A
Diethanol nitrosamine dinitrate (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Diethoxymethane	3	UN2373	II	Prohibited	3A
3,3-Diethoxypropene	3	UN2374	II	Prohibited	3A
Diethyl carbonate	3	UN2366	III	Prohibited	3A
Diethyl cellosolve, see Ethylene glycol diethyl ether					
Diethyl ether *or* Ethyl ether	3	UN1155	I	Prohibited	3A
Diethyl ketone	3	UN1156	II	Prohibited	3A
Diethyl peroxydicarbonate, with more than 27 percent in solution	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Diethyl sulfate	6.1	UN1594	II	Prohibited	Prohibited
Diethyl sulfide	3	UN2375	II	Prohibited	Prohibited
Diethylamine	3	UN1154	II	Prohibited	Prohibited
2-Diethylaminoethanol	8	UN2686	II	Prohibited	Prohibited
3-Diethylamino-propylamine	3	UN2684	III	Prohibited	3A
N,N-Diethylaniline	6.1	UN2432	III	6A	6A
Diethylbenzene	3	UN2049	III	Prohibited	3A
Diethyldichlorosilane	8	UN1767	II	Prohibited	Prohibited
Diethylene glycol dinitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Diethyleneglycol dinitrate, desensitized *with not less than 25 percent nonvolatile water-insoluble phlegmatizer, by mass*	1.1D	UN0075	II	Prohibited	Prohibited
Diethylenetriamine	8	UN2079	II	8A	8A
N,N-Diethylethylenediamine	8	UN2685	II	Prohibited	Prohibited
Diethylgold bromide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Diethylthiophosphoryl chloride	8	UN2751	II	Prohibited	Prohibited
Difluorochloroethanes, see 1- Chloro-1,1-difluoroethanes					
1,1-Difluoroethane *or* Refrigerant gas R 152a	2.1	UN1030	n/a	Prohibited	2A
1,1-Difluoroethylene *or* Refrigerant gas R 1132a	2.1	UN1959	n/a	Prohibited	2A
Difluoromethane *or* Refrigerant gas R 32	2.1	UN3252	n/a	Prohibited	2A
Difluorophosphoric acid, anhydrous	8	UN1768	II	Prohibited	Prohibited
2,3-Dihydropyran	3	UN2376	II	Prohibited	3A
1,8-Dihydroxy-2,4,5,7-tetranitroanthraquinone (chrysamminic acid)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Diiodoacetylene	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Diisobutyl ketone	3	UN1157	III	Prohibited	3A
Diisobutylamine	3	UN2361	III	Prohibited	3A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Diisobutylene, isomeric compounds	3	UN2050	II	Prohibited	3A
Diisooctyl acid phosphate	8	UN1902	III	8A	8A
Diisopropyl ether	3	UN1159	II	Prohibited	3A
Diisopropylamine	3	UN1158	II	Prohibited	Prohibited
Diisopropylbenzene hydroperoxide, with more than 72 percent in solution	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Diketene, stabilized	6.1	UN2521	I	Prohibited	Prohibited
1,2-Dimethoxyethane	3	UN2252	II	Prohibited	3A
1,1-Dimethoxyethane	3	UN2377	II	Prohibited	3A
Dimethyl carbonate	3	UN1161	II	Prohibited	3A
Dimethyl chlorothiophosphate, see Dimethyl thiophosphoryl chloride					
2,5-Dimethyl-2,5-dihydroperoxy hexane, with more than 82 percent with water	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Dimethyl disulfide	3	UN2381	II	Prohibited	3A
Dimethyl ether	2.1	UN1033	n/a	Prohibited	2A
Dimethyl sulfate	6.1	UN1595	I	Prohibited	Prohibited
Dimethyl sulfide	3	UN1164	II	Prohibited	Prohibited
Dimethyl thiophosphoryl chloride	6.1	UN2267	II	Prohibited	Prohibited
Dimethyl-N-propylamine	3	UN2266	II	Prohibited	Prohibited
Dimethylamine, anhydrous	2.1	UN1032	n/a	Prohibited	Prohibited
Dimethylamine solution	3	UN1160	II	Prohibited	Prohibited
2-Dimethylaminoacetonitrile	3	UN2378	II	Prohibited	Prohibited
2-Dimethylaminoethanol	8	UN2051	II	8A	8A
2-Dimethylaminoethyl acrylate	6.1	UN3302	II	Prohibited	Prohibited
2-Dimethylaminoethyl methacrylate	6.1	UN2522	II	Prohibited	Prohibited
N,N-Dimethylaniline	6.1	UN2253	II	Prohibited	Prohibited
2,3-Dimethylbutane	3	UN2457	II	Prohibited	3A
1,3-Dimethylbutylamine	3	UN2379	II	Prohibited	Prohibited
Dimethylcarbamoyl chloride	8	UN2262	II	8A	8A
Dimethylcyclohexanes	3	UN2263	II	Prohibited	3A
N,N-Dimethylcyclohexlamine	8	UN2264	II	8A	8A
Dimethyldichlorosilane	3	UN1162	II	Prohibited	Prohibited
Dimethyldiethoxysilane	3	UN2380	II	Prohibited	3A
Dimethyldioxanes	3	UN2707	II, III	Prohibited	3A
N,N-Dimethylformamide	3	UN2265	III	Prohibited	3A
Dimethylhexane dihydroperoxide (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Dimethylhydrazine, symmetrical	6.1	UN2382	I	Prohibited	Prohibited
Dimethylhydrazine, unsymmetrical	6.1	UN1163	I	Prohibited	Prohibited
2,2-Dimethylpropane	2.1	UN2044	n/a	Prohibited	2A
Dintro-o-cresol	6.1	UN1598	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
1,4-Dinitro-1,1,4,4-tetramethylolbutanetetranitrate (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
2,4-Dinitro-1,3,5-trimethylbenzene	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
1,3-Dinitro-4,5-dinitrosobenzene	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
1,3-Dinitro-5,5-dimethyl hydantoin	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Dinitro-7,8-dimethylglycoluril (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Dinitroanilines	6.1	UN1596	II	Prohibited	Prohibited
Dinitrobenzenes, *liquid*	6.1	UN1597	II	Prohibited	Prohibited
Dinitrobenzenes, *solid*	6.1	UN3443	II	Prohibited	Prohibited
Dinitrochlorobenzene, see Chlorodinitrobenzenes					
1,2-Dinitroethane	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
1,1-Dinitroethane (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Dinitrogen tetroxide	2.3	UN1067	n/a	Prohibited	Prohibited
Dinitroglycoluril *or* Dingu	1.1D	UN0489	II	Prohibited	Prohibited
Dinitromethane	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Dinitrophenol, *dry or wetted with less than 15 percent water, by mass*	1.1D	UN0076	II	Prohibited	Prohibited
Dinitrophenel solutions	6.1	UN1599	II	Prohibited	Prohibited
Dinitrophenol, *wetted with not less than 15 percent water, by mass*	4.1	UN1320	I	Prohibited	Prohibited
Dinitrophenolates *alkali metals, dry or wetted with less than 15 percent water, by mass*	1.3C	UN0077	II	Prohibited	Prohibited
Dinitrophenolates, *wetted with not less than 15 percent water, by mass*	4.1	UN1321	I	Prohibited	Prohibited
Dinitropropylene glycol	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
2,-4Dinitroresorcinol (heavy metal salts of) (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
4,6-Dinitroresorcinol (heavy metal salts of) (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Dinitroresorcinol, *dry or wetted with less than 15 percent water, by mass*	1.1D	UN0078	II	Prohibited	Prohibited
Dinitroresorcinol, *wetted with not less than 15 percent water, by mass*	4.1	UN1322	I	Prohibited	Prohibited
3,5-Dinitrosalicylic acid (lead salt) (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Dinitrosobenzene	1.3C	UN0406	II	Prohibited	Prohibited
Dinitrosobenzylamidine and salts of (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
2,2-Dinitrostilbene	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Dinitrotoluenes, *liquid*	6.1	UN2038	II	Prohibited	Prohibited
Dinitrotoluenes, molten	6.1	UN1600	II	Prohibited	Prohibited
Dinitrotoluenes, *solid*	6.1	UN3454	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
1,9-Dinitroxy pentamethylene2,4,6,8tetramine (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Dioxane	3	UN1165	II	Prohibited	3A
Dioxolane	3	UN1166	II	Prohibited	3A
Dipentene	3	UN2052	III	Prohibited	3A
Diphenylamine chloroarsine	6.1	UN1698	I	Prohibited	Prohibited
Diphenylchloroarsine, liquid	6.1	UN1699	I	Prohibited	Prohibited
Diphenylchloroarsine, solid	6.1	UN3450	I	Prohibited	Prohibited
Diphenyldichlorosilane	8	UN1769	II	Prohibited	Prohibited
Diphenylmethyl bromide	8	UN1770	II	8A	8A
Dipicryl sulfide, *dry or wetted with less than 10 percent water, by mass*	1.1D	UN0401	II	Prohibited	Prohibited
Dipicryl sulfide, wetted *with not less than 10 percent water, by mass*	4.1	UN2852	I	Prohibited	Prohibited
Dipicrylamine, *see* Hexanitrodiphenylamine					
Dipropionyl peroxide, with more than 28 percent in solution	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Di-n-propyl ether	3	UN2384	II	Prohibited	3A
Dipropyl ketone	3	UN2710	III	Prohibited	3A
Dipropylamine	3	UN2383	II	Prohibited	Prohibited
Disinfectants, liquid, corrosive, n.o.s.	8	UN1903	I	Prohibited	Prohibited
Disinfectants, liquid, corrosive, n.o.s.	8	UN1903	II, III	8A	8A
Disinfectants, liquid, toxic, n.o.s.	6.1	UN3142	I, II	Prohibited	Prohibited
Disinfectants, liquid, toxic, n.o.s.	6.1	UN3142	III	6A	6A
Disinfectants, solid, toxic, n.o.s.	6.1	UN1601	II	Prohibited	Prohibited
Disinfectants, solid, toxic, n.o.s.	6.1	UN1601	III	6A	6A
Disodium trioxosilicate	8	UN3253	III	8A	8A
Dispersant gases, n.o.s. *see* Refrigerant gases, n.o.s.					
Divinyl ether, stabilized	3	UN1167	I	Prohibited	Prohibited
Dodecyltrichlorosilane	8	UN1771	II	Prohibited	Prohibited
Dry ice, *see* Carbon dioxide, solid					
Dyes, liquid, corrosive, n.o.s. *or* Dye intermediates, liquid, corrosive, n.o.s.	8	UN2801	I	Prohibited	Prohibited
Dyes, liquid, corrosive, n.o.s. *or* Dye intermediates, liquid, corrosive, n.o.s.	8	UN2801	II, III	8A	8A
Dyes, liquid, toxic, n.o.s. *or* Dye intermediates, liquid, toxic, n.o.s.	6.1	UN1602	II	Prohibited	Prohibited
Dyes, liquid, toxic, n.o.s. *or* Dye intermediates, liquid, toxic, n.o.s.	6.1	UN1602	III	6A	6A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Dyes, solid, corrosive, n.o.s. *or* Dye intermediates, solid, corrosive, n.o.s.	8	UN3147	I	Prohibited	Prohibited
Dyes, solid, corrosive, n.o.s. *or* Dye intermediates, solid, corrosive, n.o.s.	8	UN3147	II, III	8A	8A
Dyes, solid, toxic, n.o.s. *or* Dye intermediates, solid, toxic, n.o.s.	6.1	UN3143	I, II	Prohibited	Prohibited
Dyes, solid, toxic, n.o.s. *or* Dye intermediates, solid, toxic, n.o.s.	6.1	UN3143	III	6A	6A
Dynamite, see Explosive, blasting, type A					
E					
Electrolyte *(acid or alkali) for batteries, see* Battery fluid, acid *or* Battery fluid, alkali					
Elevated temperature liquid, flammable, n.o.s., *with flashpoint above 37.8° C, at or above its flashpoint*	3	UN3256	III	Prohibited	Prohibited
Elevated temperature liquid, n.o.s., *at or above 100° C and below its flashpoint (including molten metals, molten salts, etc.)*	9	UN3257	III	Prohibited	Prohibited
Elevated temperature solid, n.o.s., *at or above 240° C, see 49 CFR 173.247(h)(4)*	9	UN3258	III	Prohibited	Prohibited
Engines, internal combustion, flammable gas powered	9	UN3166	n/a	Prohibited	Prohibited
Engines, internal combustion, flammable liquid powered	9	UN3166	n/a	Prohibited	Prohibited
Environmentally hazardous substances, liquid, n.o.s.	9	UN3082	III	9C	9C
Environmentally hazardous substances, solid, n.o.s.	9	UN3077	III	9C	9C
Epibromohydrin	6.1	UN2558	I	Prohibited	Prohibited
Epichlorohydrin	6.1	UN2023	II	Prohibited	Prohibited
1,2-Epoxy-3-ethoxypropane	3	UN2752	III	Prohibited	3A
Esters, n.o.s.	3	UN3272	II, III	Prohibited	3A
Etching acid, liquid, n.o.s., see Hydrofluoric acid, *solution etc.*					
Ethane	2.1	UN1035	n/a	Prohibited	2A
Ethane-Propane mixture, refrigerated liquid	2.1	NA1961	n/a	Prohibited	Prohibited
Ethane, refrigerated liquid	2.1	UN1961	n/a	Prohibited	Prohibited
Ethanol *or* Ethyl alcohol *or* Ethanol solutions *or* Ethyl alcohol solutions	3	UN1170	II, III	Mailable only per 343.27	3A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Ethanol amine dinitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Ethanol and gasoline mixture *or* Ethanol and motor spirit mixture *or* Ethanol and petrol mixture, *with more than 10% ethanol.*	3	UN3475	II	Prohibited	Prohibited
Ethanolamine *or* Ethanolamine solutions	8	UN2491	III	8A	8A
Ether, see Diethyl ether					
Ethers, n.o.s.	3	UN3271	II, III	Prohibited	3A
Ethyl acetate	3	UN1173	II	Prohibited	3A
Ethyl acrylate, stabilized	3	UN1917	II	Prohibited	3A
Ethyl alcohol, *see* Ethanol					
Ethyl aldehyde, see Acetaldehyde					
Ethyl amyl ketone	3	UN2271	III	Prohibited	3A
N-Ethylbenzyltoluidines, solid	6.1	UN3460	III	6A	6A
N-Ethyl-N-benzylaniline	6.1	UN2274	III	6A	6A
Ethyl borate	3	UN1176	II	Prohibited	3A
Ethyl bromide	3	UN1891	II, III	Prohibited	3A
Ethyl bromoacetate	6.1	UN1603	II	Prohibited	Prohibited
Ethyl butyl ether	3	UN1179	II	Prohibited	3A
Ethyl butyrate	3	UN1180	III	Prohibited	3A
Ethyl chloride	2.1	UN1037	n/a	Prohibited	Prohibited
Ethyl chloroacetate	6.1	UN1181	II	Prohibited	Prohibited
Ethyl chloroformate	6.1	UN1182	I	Prohibited	Prohibited
Ethyl 2-chloropropionate	3	UN2935	III	Prohibited	3A
Ethyl chlorothioformate	8	UN2826	II	Prohibited	Prohibited
Ethyl crotonate	3	UN1862	II	Prohibited	3A
Ethyl ether, *see* Diethyl ether					
Ethyl fluoride *or* Refrigerant gas R 161	2.1	UN2453	n/a	Prohibited	2A
Ethyl formate	3	UN1190	II	Prohibited	3A
Ethyl hydroperoxide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Ethyl isobutyrate	3	UN2385	II	Prohibited	3A
Ethyl isocyanate	3	UN2481	I	Prohibited	Prohibited
Ethyl lactate	3	UN1192	III	Prohibited	3A
Ethyl mercaptan	3	UN2363	I	Prohibited	Prohibited
Ethyl methacrylate, stabilized	3	UN2277	II	Prohibited	3A
Ethyl methyl ether	2.1	UN1039	n/a	Prohibited	Prohibited
Ethyl methyl ketone *or* Methyl ethyl ketone	3	UN1193	II	Prohibited	3A
Ethyl nitrate solutions	3	UN1194	I	Prohibited	Prohibited
Ethyl orthoformate	3	UN2524	III	Prohibited	3A
Ethyl oxalate	6.1	UN2525	III	6A	6A
Ethyl perchlorate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Ethyl phosphonothioic dichloride, anhydrous	6.1	NA2927	I	Prohibited	Prohibited
Ethyl phosphonous dichloride, anhydrous *pyrophoric liquid*	6.1	NA2845	I	Prohibited	Prohibited
Ethyl phosphorodichloridate	6.1	NA2927	I	Prohibited	Prohibited
Ethyl propionate	3	UN1195	II	Prohibited	3A
Ethyl propyl ether	3	UN2615	II	Prohibited	3A
Ethyl silicate, see Tetraethyl silicate					
Ethylacetylene, stabilized	2.1	UN2452	n/a	Prohibited	Prohibited
Ethylamine	2.1	UN1036	n/a	Prohibited	Prohibited
Ethylamine, aqueous solution *with not less than 50 percent but not more than 70 percent ethylamine*	3	UN2270	II	Prohibited	Prohibited
N-Ethylaniline	6.1	UN2272	III	6A	6A
2-Ethylaniline	6.1	UN2273	III	6A	6A
Ethylbenzene	3	UN1175	II	Prohibited	3A
N-Ethylbenzyltoluidines liquid	6.1	UN2753	III	6A	6A
2-Ethylbutanol	3	UN2275	III	Prohibited	3A
2-Ethylbutyl acetate	3	UN1177	III	Prohibited	3A
2-Ethylbutyraldehyde	3	UN1178	II	Prohibited	3A
Ethyldichloroarsine	6.1	UN1892	I	Prohibited	Prohibited
Ethyldichlorosilane	4.3	UN1183	I	Prohibited	Prohibited
Ethylene, acetylene and propylene in mixture, refrigerated liquid *with at least 71.5 percent ethylene with not more than 22.5 percent acetylene and not more than 6 percent propylene*	2.1	UN3138	n/a	Prohibited	Prohibited
Ethylene chlorohydrin	6.1	UN1135	I	Prohibited	Prohibited
Ethylene	2.1	UN1962	n/a	Prohibited	2A
Ethylene diamine diperchlorate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Ethylene dibromide	6.1	UN1605	I	Prohibited	Prohibited
Ethylene dibromide and methyl bromide liquid mixtures, see Methyl bromide and ethylene dibromide mixtures, liquid					
Ethylene dichloride	3	UN1184	II	Prohibited	Prohibited
Ethylene glycol diethyl ether	3	UN1153	III	Prohibited	3A
Ethylene glycol dinitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Ethylene glycol monoethyl ether	3	UN1171	III	Prohibited	3A
Ethylene glycol monoethyl ether acetate	3	UN1172	III	Prohibited	3A
Ethylene glycol monomethyl ether	3	UN1188	III	Prohibited	3A
Ethylene glycol monomethyl ether acetate	3	UN1189	III	Prohibited	3A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Ethylene oxide or Ethylene oxide with nitrogen *up to a total pressure of 1MPa (10 bar) at 50° C*	2.3	UN1040	n/a	Prohibited	Prohibited
Ethylene oxide and carbon dioxide mixtures *with more than 87 percent ethylene oxide*	2.3	UN3300	n/a	Prohibited	Prohibited
Ethylene oxide and carbon dioxide mixtures *with more than 9 percent but not more than 87 percent ethylene oxide*	2.1	UN1041	n/a	Prohibited	2A
Ethylene oxide and carbon dioxide mixtures *with not more than* 9 percent ethylene oxide	2.2	UN1952	n/a	2B	2B
Ethylene oxide and chlorotetrafluoroethane mixture *with not more than 8.8 percent ethylene oxide*	2.2	UN3297	n/a	2B	2B
Ethylene oxide and dichlorodifluoromethane mixture *with not more than 12.5 percent ethylene oxide*	2.2	UN3070	n/a	2B	2B
Ethylene oxide and pentafluoroethane mixture *with not more than 7.9 percent ethylene oxide*	2.2	UN3298	n/a	2B	2B
Ethylene oxide and propylene oxide mixtures *with not more than* 30 percent ethylene oxide	3	UN2983	I	Prohibited	Prohibited
Ethylene oxide and tetrafluoroethane mixture *with not more than* 5.6 percent ethylene oxide	2.2	UN3299	n/a	2B	2B
Ethylene, refrigerated liquid *(cryogenic liquid)*	2.1	UN1038	n/a	Prohibited	Prohibited
Ethylenediamine	8	UN1604	II	8A	8A
Ethyleneimine, stabilized	6.1	UN1185	I	Prohibited	Prohibited
Ethylhexaldehyde, see Octyl aldehydes *etc.*					
2-Ethylhexyl chloroformate	6.1	UN2748	II	Prohibited	Prohibited
2-Ethylhexylamine	3	UN2276	III	Prohibited	3A
Ethylphenyldichlorosilane	8	UN2435	II	Prohibited	Prohibited
1-Ethylpiperidine	3	UN2386	II	Prohibited	Prohibited
N-Ethyltoluidines	6.1	UN2754	II	Prohibited	Prohibited
Ethyltrichlorosilane	3	UN1196	II	Prohibited	Prohibited
Etiologic agent, see Infectious substances, *etc.*					
Explosive articles, see Articles, explosive, n.o.s. *etc.*					
Explosive, blasting, type A	1.1D	UN0081	II	Prohibited	Prohibited
Explosive, blasting, type B	1.1D	UN0082	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Explosive, blasting, type B *or* Agent blasting, Type B	1.5D	UN0331	II	Prohibited	Prohibited
Explosive, blasting, type C	1.1D	UN0083	II	Prohibited	Prohibited
Explosive, blasting, type D	1.1D	UN0084	II	Prohibited	Prohibited
Explosive, blasting, type E	1.1D	UN0241	II	Prohibited	Prohibited
Explosive, blasting, type E *or* Agent blasting, Type E	1.5D	UN0332	II	Prohibited	Prohibited
Explosive, forbidden. See 49 CFR 173.54	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Explosive substances, see Substances, explosive, n.o.s. *etc.*					
Explosives, slurry, see Explosive, blasting, type E					
Explosives, water gels, see Explosive, blasting, type E					
Extracts, liquid, flavor, or aroma	3	UN1197	II, III	Prohibited	3A
F					
Fabric *with animal or vegetable oil, see* Fibers *or* Fabrics, *etc.*					
Ferric arsenate	6.1	UN1606	II	Prohibited	Prohibited
Ferric arsenite	6.1	UN1607	II	Prohibited	Prohibited
Ferric chloride, anhydrous	8	UN1773	III	8A	8A
Ferric chloride, solution	8	UN2582	III	8A	8A
Ferric nitrate	5.1	UN1466	III	5A	5A
Ferrocerium	4.1	UN1323	II	Prohibited	4A
Ferrosilicon, *with 30 percent or more but less than 90 percent silicon*	4.3	UN1408	III	Prohibited	4A
Ferrous arsenate	6.1	UN1608	II	Prohibited	Prohibited
Ferrous chloride, solid	8	NA1759	II	8A	8A
Ferrous chloride, solution	8	NA1760	II	8A	8A
Ferrous metal borings *or* Ferrous metal shavings *or* Ferrous metal turnings *or* Ferrous metal cuttings *in a form liable to self-heating*	4.2	UN2793	III	Prohibited	Prohibited
Fertilizer ammoniating solution *with free ammonia*	2.2	UN1043	n/a	2B	2B
Fibers, animal *or* Fibers, vegetable *burnt, wet or damp*	4.2	UN1372	III	Prohibited	Prohibited
Fiber, vegetable, dry	4.1	UN3360	III	Prohibited	Prohibited
Fibers *or* Fabrics impregnated with weakly nitrated nitrocellulose, n.o.s.	4.1	UN1353	III	Prohibited	Prohibited
Fibers *or* Fabrics, animal *or* vegetable *or* Synthetic, n.o.s. *with animal or vegetable oil*	4.2	UN1373	III	Prohibited	Prohibited
Films, nitrocellulose base, *gelatine coated (except scrap)*	4.1	UN1324	III	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Films, nitrocellulose base, from which gelatine has been removed; film scrap, see Celluloid scrap					
Fire extinguisher charges, *corrosive liquid*	8	UN1774	II	8A	8A
Fire extinguisher charges, expelling, explosive, see Cartridges, power device					
Fire extinguishers *containing compressed or liquified gas*	2.2	UN1044	n/a	2C	2C
Firelighters, solid *with flammable liquid*	4.1	UN2623	III	Prohibited	Prohibited
Fireworks	1.1G	UN0333	II	Prohibited	Prohibited
Fireworks	1.2G	UN0334	II	Prohibited	Prohibited
Fireworks	1.3G	UN0335	II	Prohibited	Prohibited
Fireworks	1.4G	UN0336	II	Prohibited	Prohibited
Fireworks	1.4S	UN0337	II	Prohibited	Prohibited
First aid kits	9	UN3316		Prohibited	9C
Fish meal, stabilized *or* Fish scrap, stabilized	9	UN2216	III	9C	9C
Fish meal, unstabilized *or* Fish scrap, unstabilized	4.2	UN1374	II	Prohibited	Prohibited
Flammable compressed gas (small receptacles not fitted with a dispersion device, not refillable), see Receptacles, etc.					
Flammable compressed gas, see Compressed *or* liquified gas, flammable, etc.					
Flammable gas in lighters, see Lighters *or* lighter refills, cigarettes, containing flammable gas					
Flammable liquid, toxic, corrosive, n.o.s.	3	UN3286	I, II	Prohibited	Prohibited
Flammable liquids, corrosive, n.o.s.	3	UN2924	I, II	Prohibited	Prohibited
Flammable liquids, corrosive, n.o.s.	3	UN2924	III	Prohibited	3A
Flammable liquids, n.o.s.	3	UN1993	I, II, III	Prohibited	3A
Flammable liquids, toxic, n.o.s.	3	UN1992	I, II	Prohibited	Prohibited
Flammable liquids, toxic, n.o.s.	3	UN1992	III	Prohibited	3A
Flammable solid, corrosive, inorganic, n.o.s.	4.1	UN3180	II, III	Prohibited	4A
Flammable solid, inorganic, n.o.s.	4.1	UN3178	II, III	Prohibited	4A
Flammable solid, organic, molten, n.o.s.	4.1	UN3176	II, III	Prohibited	4A
Flammable solid, oxidizing, n.o.s.	4.1	UN3097	II, III	Prohibited	Prohibited
Flammable solid, toxic, inorganic, n.o.s.	4.1	UN3179	II, III	Prohibited	4A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Flammable solids, corrosive, organic, n.o.s.	4.1	UN2925	II	Prohibited	Prohibited
Flammable solids, corrosive, organic, n.o.s.	4.1	UN2925	III	Prohibited	4A
Flammable solids, organic, n.o.s.	4.1	UN1325	II, III	Prohibited	4A
Flammable solids, toxic, organic, n.o.s.	4.1	UN2926	II	Prohibited	Prohibited
Flammable solids, toxic, organic, n.o.s.	4.1	UN2926	III	Prohibited	4A
Flares, aerial	1.1G	UN0420	II	Prohibited	Prohibited
Flares, aerial	1.2G	UN0421	II	Prohibited	Prohibited
Flares, aerial	1.3G	UN0093	II	Prohibited	Prohibited
Flares, aerial	1.4G	UN0403	II	Prohibited	Prohibited
Flares, aerial	1.4S	UN0404	II	Prohibited	Prohibited
Flares, airplane, see Flares, aerial					
Flares, signal, see Cartridges, signal					
Flares, surface	1.1G	UN0418	II	Prohibited	Prohibited
Flares, surface	1.2G	UN0419	II	Prohibited	Prohibited
Flares, surface	1.3G	UN0092	II	Prohibited	Prohibited
Flares, water-activated, see Contrivances, water-activated, *etc.*					
Flash powder	1.1G	UN0094	II	Prohibited	Prohibited
Flash powder	1.3G	UN0305	II	Prohibited	Prohibited
Flue dusts, poisonous, see Arsenical dust					
Fluoric acid, see Hydrofluoric acid, solution, etc.					
Fluorine, compressed	2.3	UN1045	n/a	Prohibited	Prohibited
Fluoroacetic acid	6.1	UN2642	I	Prohibited	Prohibited
Fluoroanilines	6.1	UN2941	III	6A	6A
Fluorobenzene	3	UN2387	II	Prohibited	3A
Fluoroboric acid	8	UN1775	II	8A	8A
Fluorophosphoric acid anhydrous	8	UN1776	II	Prohibited	Prohibited
Fluorosilicates, n.o.s.	6.1	UN2856	III	6A	6A
Fluorosilicic acid	8	UN1778	II	Prohibited	Prohibited
Fluorosulfonic acid	8	UN1777	I	Prohibited	Prohibited
Fluorotoluenes	3	UN2388	II	Prohibited	3A
Forbidden materials, see 49 CFR 173.21	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Formaldehyde, solutions, *with not less than 25 percent formaldehyde*	8	UN2209	III	8A	8A
Formaldehyde, solutions, flammable	3	UN1198	III	Prohibited	3A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Formaldehyde solutions (with not less than 10 percent and less than 25 percent formaldehyde), see Aviation regulated liquid, n.o.s. or Other regulated substances, liquid, n.o.s.					
Formalin, see Formaldehyde, solutions, *etc.*					
Formic acid *with not less than 10 percent but not more than 85 percent acid by mass*	8	UN3412	II	Prohibited	Prohibited
Formic acid *with not less than* 5 percent but less than 10 percent acid by mass	8	UN3412	III	8A	8A
Formic acid	8	UN1779	II	8A	8A
Fracturing devices, explosives, without detonators for oil wells	1.1D	UN0099	II	Prohibited	Prohibited
Fuel, aviation, turbine engine	3	UN1863	I, II, III	Prohibited	3A
Fuel cell cartridges *or* Fuel cell cartridges contained in equipment *or* Fuel cell cartridges packed with equipment *containing corrosive substances*	8	UN3477		8A	8A
Fuel cell cartridges *or* Fuel cell cartridges contained in equipment *or* Fuel cell cartridges packed with equipment *containing flammable liquids*	3	UN3473		Prohibited	3A
Fuel cell cartridges *or* Fuel cell cartridges contained in equipment *or* Fuel cell cartridges packed with equipment *containing hydrogen in metal hydride*	2.1	UN3479	Prohibited	Prohibited	Prohibited
Fuel cell cartridges *or* Fuel cell cartridges contained in equipment *or* Fuel cell cartridges packed with equipment *containing liquified flammable gas*	2.1	UN3478	Prohibited	Prohibited	Prohibited
Fuel cell cartridges *or* Fuel cell cartridges contained in equipment *or* Fuel cell cartridges packed with equipment *containing water-reactive substances*	4.3	UN3476	Prohibited	Prohibited	Prohibited
Fuel oil *(No. 1, 2, 4, 5, or 6)*	3	NA1993	III	Prohibited	3A
Fuel system components (including fuel control units (FCU), carburetors, fuel lines, fuel pumps) see Dangerous Goods in Apparatus *or* Dangerous Goods in Machinery					
Fulminate of mercury (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Fulminate of mercury, wet, see Mercury fulminate, *etc.*					
Fulminating gold	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Fulminating mercury	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Fulminating platinum	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Fulminating silver	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Fulminic acid	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Fumaryl chloride	8	UN1780	II	8A	8A
Fumigated lading, see 49 CFR 172.302(g), 173.9, and 176.76(h)	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited
Fumigated transport vehicle *or* freight containers see 49 CFR 173.9					
Furaldehydes	6.1	UN1199	II	Prohibited	Prohibited
Furan	3	UN2389	I	Prohibited	Prohibited
Furfuryl alcohol	6.1	UN2874	III	6A	6A
Furfurylamine	3	UN2526	III	Prohibited	3A
Fuse, detonating, *metal clad, see* Cord, detonating, *metal clad*					
Fuse, detonating, mild effect, *metal clad, see* Cord, detonating, mild effect, *metal clad*					
Fuse, igniter *tubular metal clad*	1.4G	UN0103	II	Prohibited	Prohibited
Fuse, non-detonating *(instantaneous or quickmatch)*	1.3G	UN0101	II	Prohibited	Prohibited
Fuse, safety	1.4S	UN0105	II	Prohibited	1B
Fusee *(railway or highway)*	4.1	NA1325	II	Prohibited	Prohibited
Fusel oil	3	UN1201	II, III	Prohibited	3A
Fuses, tracer, see Tracers for ammunition					
Fuzes, combination, percussion and time, see Fuzes, detonating (UN0257, UN0367); Fuzes, igniting (UN0317, UN0368)					
Fuzes, detonating	1.1B	UN0106	II	Prohibited	Prohibited
Fuzes, detonating	1.2B	UN0107	II	Prohibited	Prohibited
Fuzes, detonating	1.4B	UN0257	II	Prohibited	Prohibited
Fuzes, detonating	1.4S	UN0367	II	Prohibited	Prohibited
Fuzes, detonating, *with protective features*	1.1D	UN0408	II	Prohibited	Prohibited
Fuzes, detonating, *with protective features*	1.2D	UN0409	II	Prohibited	Prohibited
Fuzes, detonating, *with protective features*	1.4D	UN0410	II	Prohibited	Prohibited
Fuzes, igniting	1.3G	UN0316	II	Prohibited	Prohibited
Fuzes, igniting	1.4G	UN0317	II	Prohibited	Prohibited
Fuzes, igniting	1.4S	UN0368	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
G					
Galactsan trinitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Gallium	8	UN2803	III	Prohibited	Prohibited
Gas cartridges *(flammable) without a release device, non-refillable*	2.1	UN2037	n/a	Prohibited	2A
Gas identification set	2.3	NA9035	n/a	Prohibited	Prohibited
Gas oil *or* Diesel fuel *or* Heating oil, light	3	UN1202	III	Prohibited	3A
Gas, refrigerated liquid, flammable, n.o.s. *(cryogenic liquid)*	2.1	UN3312	n/a	Prohibited	Prohibited
Gas, refrigerated liquid, n.o.s. *(cryogenic liquid)*	2.2	UN3158	n/a	Prohibited	Prohibited
Gas, refrigerated liquid, oxidizing, n.o.s. *(cryogenic liquid)*	2.2	UN3311	n/a	Prohibited	Prohibited
Gas sample, non-pressurized, flammable, n.o.s., *not refrigerated liquid*	2.1	UN3167	n/a	Prohibited	2A
Gas sample, non-pressurized, toxic, flammable, n.o.s., *not refrigerated liquid*	2.3	UN3168	n/a	Prohibited	Prohibited
Gas sample, non-pressurized, toxic, n.o.s., *not refrigerated liquid*	2.3	UN3169	n/a	Prohibited	Prohibited
Gasohol *gasoline mixed with ethyl alcohol, with not more than* 10 percent alcohol	3	NA1203	II	Prohibited	3A
Gasoline *includes gasoline mixed with ethyl alcohol, with not more than 10 percent alcohol*	3	UN1203	II	Prohibited	Prohibited
Gasoline, casinghead, see Gasoline					
Gelatine, blasting, see Explosive, blasting, type A					
Gelatine dynamites, see Explosive, blasting, type A					
Germane	2.3	UN2192	n/a	Prohibited	Prohibited
Glycerol-1,3-dinitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Glycerol gluconate trinitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Glycerol lactate trinitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Glycerol alpha-monochlorohydrin	6.1	UN2689	III	6A	6A
Glyceryl trinitrate, see Nitroglycerin, etc.					
Glycidaldehyde	3	UN2622	II	Prohibited	3A
Grenades, *hand or rifle, with bursting charge*	1.1D	UN0284	II	Prohibited	Prohibited
Grenades, *hand or rifle, with bursting charge*	1.1F	UN0292	II	Prohibited	Prohibited
Grenades, *hand or rifle, with bursting charge*	1.2D	UN0285	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Grenades, *hand or rifle, with bursting charge*	1.2F	UN0293	II	Prohibited	Prohibited
Grenades, illuminating, see Ammunition, illuminating, *etc.*					
Grenades, practice, *hand or rifle*	1.2G	UN0372	II	Prohibited	Prohibited
Grenades, practice, *hand or rifle*	1.3G	UN0318	II	Prohibited	Prohibited
Grenades, practice, *hand or rifle*	1.4G	UN0452	II	Prohibited	Prohibited
Grenades, practice, *hand or rifle*	1.4S	UN0110	II	Prohibited	Prohibited
Grenades, smoke, see Ammunition, smoke, *etc.*					
Guanidine nitrate	5.1	UN1467	III	5A	5A
Guanyl nitrosaminoguanylidene hydrazine (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Guanyl nitrosaminoguanylidene hydrazine, wetted *with not less than 30 percent water, by mass*	1.1A	UN0113	II	Prohibited	Prohibited
Guanyl nitrosaminoguanyltetrazene (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Guanyl nitrosaminoguanyltetrazene, wetted *or* Tetrazene, wetted *with not less than 30 percent water or mixture of alcohol and water, by mass*	1.1A	UN0114	II	Prohibited	Prohibited
Gunpowder, *granular or as a meal, see* Black powder, *etc. (UN0027)*					
Gunpowder, compressed *or* Gunpowder in pellets, *see* Black powder, *etc. (UN0028)*					
H					
Hafnium powder, dry	4.2	UN2545	I, II, III	Prohibited	Prohibited
Hafnium powder, wetted *with not less than 25 percent water (a visible excess of water must be present) (a) mechanically produced, particle size less than 53 microns; (b) chemically produced, particle size less than 840 microns*	4.1	UN1326	II	Prohibited	Prohibited
Hand signal device, see Signal devices, hand					
Hazardous substances, liquid or solid, n.o.s., see Environmentally hazardous substances, *etc.*					
Hazardous waste, liquid, n.o.s.	9	NA3082	III	Prohibited	Prohibited
Hazardous waste, solid, n.o.s.	9	NA3077	III	Prohibited	Prohibited
Heating oil, light	3	UN1202	III	Prohibited	3A
Helium, compressed	2.2	UN1046	n/a	2B	2B
Helium, refrigerated liquid *(cyrogenic liquid)*	2.2	UN1963	n/a	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Heptafluoropropane *or* Refrigerant gas R 227	2.2	UN3296	n/a	2B	2B
n-Heptaldehyde	3	UN3056	III	Prohibited	3A
Heptanes	3	UN1206	II	Prohibited	3A
n-Heptane	3	UN2278	II	Prohibited	3A
Hexachloroacetone	6.1	UN2661	III	6A	6A
Hexachlorobenzene	6.1	UN2729	III	6A	6A
Hexachlorobutadiene	6.1	UN2279	III	6A	6A
Hexachlorocyclopentadiene	6.1	UN2646	I	Prohibited	Prohibited
Hexachlorophene	6.1	UN2875	III	6A	6A
Hexadecyltrichlorosilane	8	UN1781	II	Prohibited	Prohibited
Hexadienes	3	UN2458	II	Prohibited	Prohibited
Hexaethyl tetraphosphate and compressed gas mixtures	2.3	UN1612	n/a	Prohibited	Prohibited
Hexaethyl tetraphosphate, *liquid*	6.1	UN1611	II	Prohibited	Prohibited
Hexaethyl tetraphosphate, *solid*	6.1	UN1611	II	Prohibited	Prohibited
Hexafluoroacetone	2.3	UN2420	n/a	Prohibited	Prohibited
Hexafluoroacetone hydrate, liquid	6.1	UN2552	II	Prohibited	Prohibited
Hexafluoroacetone hydrate, solid	6.1	UN3436	II	Prohibited	Prohibited
Hexafluoroethane, compressed *or* Refrigerant gas R 116	2.2	UN2193	n/a	2B	2B
Hexafluorophosphoric acid	8	UN1782	II	Prohibited	Prohibited
Hexafluoropropylene, compressed *or* Refrigerant gas R 1216	2.2	UN1858	n/a	2B	2B
Hexaldehyde	3	UN1207	III	Prohibited	3A
Hexamethylene diisocyanate	6.1	UN2281	II	Prohibited	Prohibited
Hexamethylene triperoxide diamine (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Hexamethylenediamine solution	8	UN1783	II	Prohibited	Prohibited
Hexamethylenediamine solution	8	UN1783	III	8A	8A
Hexamethylenediamine, solid	8	UN2280	III	8A	8A
Hexamethyleneimine	3	UN2493	II	Prohibited	Prohibited
Hexamethylenetetramine	4.1	UN1328	III	Prohibited	4A
Hexamethylol benzene hexanitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Hexanes	3	UN1208	II	Prohibited	3A
2,2',4,4',6,6'-Hexanitro-3,3'-dihydroxyazobenzene (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Hexanitroazoxy benzene	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Hexanitrodiphenyl urea	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
N,N'-(hexanitrodiphenyl) ethylene dinitramine (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Hexanitrodiphenylamine *or* Dipicrylamine *or* Hexyl	1.1D	UN0079	II	Prohibited	Prohibited
2,2',3',4,4',6-Hexanitrodiphenylamine	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
2,3',4,4',6,6'-Hexanitrodiphenylether	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Hexanitroethane	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Hexanitrooxanilide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Hexanitrostilbene	1.1D	UN0392	II	Prohibited	Prohibited
Hexanoic acid, see Corrosive liquids, n.o.s.					
Hexanols	3	UN2282	III	Prohibited	3A
1-Hexene	3	UN2370	II	Prohibited	3A
Hexogen and cyclotetramethylenetetranitramine mixtures, wetted *or* desensitized *see* RDX and HMX mixtures, wetted *or* desensitized *etc.*					
Hexogen and HMX mixtures, wetted *or* desensitized *see* RDX and HMX mixtures, wetted *or* desensitized *etc.*					
Hexogen and octogen mixtures, wetted *or* desensitized *see* RDX and HMX mixtures, wetted *or* desensitized *etc.*					
Hexogen, *see* Cyclotrimethylenetrinitramine, *etc.*					
Hexolite, *or* Hexotol *dry or wetted with less than 15 percent water, by mass*	1.1D	UN0118	II	Prohibited	Prohibited
Hexotonal	1.1D	UN0393	II	Prohibited	Prohibited
Hexyl, *see* Hexanitrodiphenylamine					
Hexyltrichlorosilane	8	UN1784	II	Prohibited	Prohibited
High explosives, see individual explosives' entries					
HMX, *see* Cyclotetramethylenetetranitramine, *etc.*					
Hydrazine, anhydrous *or* Hydrazine aqueous solutions *with more than 64 percent hydrazine, by mass*	8	UN2029	I	Prohibited	Prohibited
Hydrazine, aqueous solution *with not more than 37 percent hydrazine, by mass*	6.1	UN3293	III	6A	6A
Hydrazine aqueous solution, flammable *with more than* 37 percent hydrazine, by mass	8	UN3484	I	Prohibited	Prohibited
Hydrazine aqueous solution, *with more than 37 percent hydrazine, by mass*	8	UN2030	II	Prohibited	Prohibited
Hydrazine azide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Hydrazine chlorate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Hydrazine decarbonic acid diazide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Hydrazine perchlorate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Hydrazine selenate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Hydriodic acid	8	UN1787	II, III	8A	8A
Hydriodic acid, anhydrous, see Hydrogen iodide, anhydrous					
Hydrobromic acid, *with more than 49 percent hydrobromic acid*	8	UN1788	II, III	Prohibited	Prohibited
Hydrobromic acid, *with not more than 49 percent hydrobromic acid*	8	UN1788	II, III	8A	8A
Hydrobromic acid, anhydrous, see Hydrogen bromide, anhydrous					
Hydrocarbon gas mixture, compressed, n.o.s.	2.1	UN1964	n/a	Prohibited	2A
Hydrocarbon gas mixtures, liquified, n.o.s.	2.1	UN1965	n/a	Prohibited	2A
Hydrocarbons, liquid, n.o.s.	3	UN3295	I, II, III	Prohibited	3A
Hydrochloric acid	8	UN1789	II, III	8A	8A
Hydrochloric acid, anhydrous, see Hydrogen chloride, anhydrous					
Hydrocyanic acid, anhydrous, see Hydrogen cyanide, *etc.*					
Hydrocyanic acid, aqueous solutions *or* Hydrogen cyanide, aqueous solutions *with not more than* 20 percent hydrogen cyanide	6.1	UN1613	I	Prohibited	Prohibited
Hydrocyanic acid, aqueous solutions *with less than 5 percent hydrogen cyanide*	6.1	NA1613	II	Prohibited	Prohibited
Hydrocyanic acid, liquified, see Hydrogen cyanide, *etc.*					
Hydrocyanic acid (prussic) unstabilized	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Hydrofluoric acid and Sulfuric acid mixtures	8	UN1786	I	Prohibited	Prohibited
Hydrofluoric acid, anhydrous, see Hydrogen fluoride, anhydrous					
Hydrofluoric acid, *with more than 60 percent strength*	8	UN1790	I	Prohibited	Prohibited
Hydrofluoric acid, *with not more than 60 percent strength*	8	UN1790	II	Prohibited	Prohibited
Hydrofluoroboric acid, see Fluoroboric acid					
Hydorfluorosilicic acid, see Fluorosilicic acid					
Hydrogen and Methane mixtures, compressed	2.1	UN2034	n/a	Prohibited	2A
Hydrogen bromide, anhydrous	2.3	UN1048	n/a	Prohibited	Prohibited
Hydrogen chloride, anhydrous	2.3	UN1050	n/a	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Hydrogen chloride, refrigerated liquid	2.3	UN2186	n/a	Prohibited	Prohibited
Hydrogen, compressed	2.1	UN1049	n/a	Prohibited	2A
Hydrogen, cyanide, solution in alcohol *with not more than* 45 percent hydrogen cyanide	6.1	UN3294	I	Prohibited	Prohibited
Hydrogen cyanide, stabilized *with less than 3 percent water*	6.1	UN1051	I	Prohibited	Prohibited
Hydrogen cyanide, stabilized *with less than 3 percent water and absorbed in a porous inert material*	6.1	UN1614	I	Prohibited	Prohibited
Hydrogen fluoride, anhydrous	8	UN1052	I	Prohibited	Prohibited
Hydrogen in a metal hydride storage system *or* Hydrogen in a metal hydride storage system contained in equipment *or* Hydrogen in a metal hydride storage system packed with equipment	2.1	UN3468	n/a	Prohibited	Prohibited
Hydrogen iodide, anhydrous	2.3	UN2197	n/a	Prohibited	Prohibited
Hydrogen iodide solution, see Hydriodic acid, solution					
Hydrogendifluoride solutions, n.o.s.	8	UN3471	II	Prohibited	Prohibited
Hydrogendifluoride solutions, n.o.s.	8	UN3471	III	Prohibited	8A
Hydrogen peroxide and peroxyacetic acid mixtures, stabilized *with acids, water, and not more than 5 percent peroxyacetic acid*	5.1	UN3149	II	Prohibited	Prohibited
Hydrogen peroxide, aqueous solutions *with more than 40 percent but not more than 60 percent hydrogen peroxide (stabilized as necessary)*	5.1	UN2014	II	Prohibited	Prohibited
Hydrogen peroxide, aqueous solutions *with not less than 20 percent but not more than 40 percent hydrogen peroxide (stabilized as necessary)*	5.1	UN2014	II	Prohibited	Prohibited
Hydrogen peroxide, aqueous solutions *with not less than 8 percent but less than 20 percent hydrogen peroxide (stabilized as necessary)*	5.1	UN2984	III	5A	5A
Hydrogen peroxide, stabilized *or* Hydrogen peroxide aqueous solutions, stabilized *with more than 60 percent hydrogen peroxide*	5.1	UN2015	I	Prohibited	Prohibited
Hydrogen, refrigerated liquid (cryogenic liquid)	2.1	UN1966	n/a	Prohibited	Prohibited
Hydrogen selenide, anhydrous	2.3	UN2202	n/a	Prohibited	Prohibited
Hydrogen sulfate, see Sulfuric acid, etc.					

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Hydrogen sulfide	2.3	UN1053	n/a	Prohibited	Prohibited
Hydrogendifluorides, n.o.s. *solid*	8	UN1740	II	Prohibited	Prohibited
Hydrogendifluorides, n.o.s. *solid*	8	UN1740	III	8A	8A
Hydrogendifluorides, n.o.s. *solutions*	8	UN3471	II	Prohibited	Prohibited
Hydrogendifluorides, n.o.s. *solutions*	8	UN3471	III	8A	8A
Hydrosilicofluoric acid, see Fluorosilicic acid					
1-Hydroxybenzotriazole, anhydrous*, dry or wetted with less than* 20 percent water, by mass	1.3C	UN0508	n/a	Prohibited	Prohibited
1-Hydroxybenzotriazole, monohydrate	4.1	UN3474	I	Prohibited	Prohibited
Hydroxyl amine iodide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Hydroxylamine sulfate	8	UN2865	III	8A	8A
Hypochlorite solutions	8	UN1791	II, III	8A	8A
Hypochlorites, inorganic, n.o.s.	5.1	UN3212	II	5A	5A
Hyponitrous acid	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
I					
Igniter fuse, metal clad, see Fuse, igniter *tubular metal clad*					
Igniters	1.1G	UN0121	II	Prohibited	Prohibited
Igniters	1.2G	UN0314	II	Prohibited	Prohibited
Igniters	1.3G	UN0315	II	Prohibited	Prohibited
Igniters	1.4G	UN0325	II	Prohibited	Prohibited
Igniters	1.4S	UN0454	II	Prohibited	1A
3,3'-Iminodipropylamine	8	UN2269	III	8A	8A
Infectious substances, affecting animals *only*	6.2	UN2900	n/a	Prohibited	Prohibited
Infectious substances, affecting humans *only*	6.2	UN2814	n/a	Prohibited	Prohibited
Inflammable, see Flammable					
Initiating explosives (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Inosital hexanitrate (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Insecticide gases, n.o.s.	2.2	UN1968	n/a	2B	2B
Insecticide gases, flammable, n.o.s	2.1	UN3354	n/a	Prohibited	2A
Insecticide gases, toxic, n.o.s.	2.3	UN1967	n/a	Prohibited	Prohibited
Insecticide gases, toxic, flammable, n.o.s., *Inhalation hazard A, B, C or D*	2.3	UN3355	n/a	Prohibited	Prohibited
Inulin trinitrate (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Iodine	8	UN3495	III	Prohibited	Prohibited
Iodine azide (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Iodine monochloride, liquid	8	UN3498	II	Prohibited	Prohibited
Iodine monochloride, solid	8	UN1792	II	Prohibited	Prohibited
Iodine pentafluoride	5.1	UN2495	I	Prohibited	Prohibited
2-Iodobutane	3	UN2390	II	Prohibited	3A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Iodomethylpropanes	3	UN2391	II	Prohibited	3A
Iodopropanes	3	UN2392	III	Prohibited	3A
Iodoxy compounds (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Iridium nitratopentamine iridium nitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Iron chloride, see Ferric chloride, etc.					
Iron oxide, spent, *or* Iron sponge, spent *obtained from coal gas purification*	4.2	UN1376	III	Prohibited	Prohibited
Iron pentacarbonyl	6.1	UN1994	I	Prohibited	Prohibited
Iron sesquichloride, see Ferric chloride					
Irritating material, see Tear gas substances, *etc.*					
Isobutane *see also* Petroleum gases, liquified	2.1	UN1969	n/a	Prohibited	2A
Isobutanol or Isobutyl alcohol	3	UN1212	III	Prohibited	3A
Isobutyl acetate	3	UN1213	II	Prohibited	3A
Isobutyl acrylate, stabilized	3	UN2527	III	Prohibited	3A
Isobutyl alcohol, *see* Isobutanol					
Isobutyl aldehyde, *see* Isobutyraldehyde					
Isobutyl formate	3	UN2393	II	Prohibited	3A
Isobutyl isobutyrate	3	UN2528	III	Prohibited	3A
Isobutyl isocyanate	3	UN2486	I	Prohibited	Prohibited
Isobutyl methacrylate, stabilized	3	UN2283	III	Prohibited	3A
Isobutyl propionate	3	UN2394	III	Prohibited	3A
Isobutylamine	3	UN1214	II	Prohibited	Prohibited
Isobutylene *see also* Petroleum gases, liquified	2.1	UN1055	n/a	Prohibited	2A
Isobutyraldehyde *or* Isobutyl aldehyde	3	UN2045	II	Prohibited	3A
Isobutyric acid	3	UN2529	III	Prohibited	3A
Isobutyronitrile	3	UN2284	II	Prohibited	Prohibited
Isobutyryl chloride	3	UN2395	II	Prohibited	Prohibited
Isocyanates, flammable, toxic, n.o.s. *or* Isocyanate solutions, flammable, toxic, n.o.s. *flashpoint less than 23° C*	3	UN2478	II	Prohibited	Prohibited
Isocyanates, toxic, flammable, n.o.s. *or* Isocyanate solutions, toxic, flammable, n.o.s. *flashpoint not less than 23° C but not more than 61° C and boiling point less than 300° C*	6.1	UN3080	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Isocyanates, toxic, n.o.s. *or* Isocyanate solutions, toxic, n.o.s. *flashpoint more than 61° C and boiling point less than 300° C*	6.1	UN2206	II	Prohibited	Prohibited
Isocyanates, toxic, n.o.s. *or* Isocyanate solutions, toxic, n.o.s. *flashpoint more than 61° C and boiling point less than 300° C*	6.1	UN2206	III	6A	6A
Isocyanatobenzotrifluorides	6.1	UN2285	II	Prohibited	Prohibited
Isoheptenes	3	UN2287	II	Prohibited	3A
Isohexenes	3	UN2288	II	Prohibited	3A
Isooctane, see Octanes					
Isooctenes	3	UN1216	II	Prohibited	3A
Isopentane, see Pentanes					
Isopentanoic acid, see Corrosive liquids, n.o.s.					
Isopentenes	3	UN2371	I	Prohibited	3A
Isophorone diisocyanate	6.1	UN2290	III	6A	6A
Isophoronediamine	8	UN2289	III	8A	8A
Isoprene, stabilized	3	UN1218	I	Prohibited	3A
Isopropanol *or* Isopropyl alcohol	3	UN1219	II	Prohibited	3A
Isopropenyl acetate	3	UN2403	II	Prohibited	3A
Isopropenylbenzene	3	UN2303	III	Prohibited	3A
Isopropyl acetate	3	UN1220	II	Prohibited	3A
Isopropyl acid phosphate	8	UN1793	III	8A	8A
Isopropyl alcohol, *see* Isopropanol					
Isopropyl butyrate	3	UN2405	III	Prohibited	3A
Isopropyl chloroacetate	3	UN2947	III	Prohibited	3A
Isopropyl chloroformate	6.1	UN2407	I	Prohibited	Prohibited
Isopropyl 2-chloropropionate	3	UN2934	III	Prohibited	3A
Isopropyl isobutyrate	3	UN2406	II	Prohibited	3A
Isopropyl isocyanate	3	UN2483	I	Prohibited	3A
Isopropyl mercaptan, see Propanethiols					
Isopropyl nitrate	3	UN1222	II	Prohibited	3A
Isopropyl phosphoric acid, see Isopropyl acid phosphate					
Isopropyl propionate	3	UN2409	II	Prohibited	3A
Isopropylamine	3	UN1221	I		
Isopropylbenzene	3	UN1918	III	Prohibited	3A
Isopropylcumyl hydroperoxide, with more than 72 percent in solution	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Isosorbide dinitrate mixture *with not less than 60 percent lactose, mannose, starch or calcium hydrogen phosphate*	4.1	UN2907	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Isosorbide5mononitrate	4.1	UN3251	III	Prohibited	3A
Isothiocyanic acid	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
J					
Jet fuel, see Fuel, aviation, turbine engine					
Jet, perforating guns, charged *oil well, with detonator*	1.1D	NA0124	II	Prohibited	Prohibited
Jet, perforating guns, charged *oil well, with detonator*	1.4D	NA0494	II	Prohibited	Prohibited
Jet, perforating guns, charged *oil well, without detonator*	1.1D	UN0124	II	Prohibited	Prohibited
Jet, perforating guns, charged *oil well, without detonator*	1.4D	UN0494	II	Prohibited	Prohibited
Jet, perforators, see Charges, shaped, commercial *etc.*					
Jet tappers, without detonator, see Charges, shaped, commercial, *etc.*					
Jet thrust igniters, for rocket motors or Jato, see Igniters					
Jet thrust unit (Jato), see Rockets motors					
K					
Kerosene	3	UN1223	III	Prohibited	3A
Ketones, liquid, n.o.s.	3	UN1224	I	Prohibited	Prohibited
Ketones, liquid, n.o.s.	3	UN1224	II, III	Prohibited	3A
Krill meal	4.2	UN3497	II, III	Prohibited	4A
Krypton, compressed	2.2	UN1056	n/a	2B	2B
Krypton, refrigerated liquid *(cryogenic liquid)*	2.2	UN1970	n/a	Prohibited	Prohibited
L					
Lacquer base or lacquer chips, nitrocellulose, dry, see Nitrocellulose, *etc. (UN2557)*					
Lacquer base or lacquer chips, plastic, wet with alcohol or solvent, see Nitrocellulose *(UN2059, UN2555, UN2556, UN2557) or* Paint *etc. (UN1263)*					
Lead acetate	6.1	UN1616	III	6A	6A
Lead arsenates	6.1	UN1617	II	Prohibited	Prohibited
Lead arsenites	6.1	UN1618	II	Prohibited	Prohibited
Lead azide (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Lead azide, wetted *with not less than 20 percent water or mixture of alcohol and water, by mass*	1.1A	UN0129	II	Prohibited	Prohibited
Lead compounds, soluble, n.o.s.	6.1	UN2291	III	6A	6A
Lead cyanide	6.1	UN1620	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Lead dioxide	5.1	UN1872	III	5A	5A
Lead dross, see Lead sulfate *with more* than 3 percent free acid					
Lead nitrate	5.1	UN1469	II	Prohibited	Prohibited
Lead nitroresorcinate (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Lead perchlorate, solid	5.1	UN1470	II	Prohibited	Prohibited
Lead perchlorate, solution	5.1	UN3408	II, III	Prohibited	Prohibited
Lead peroxide, see Lead dioxide					
Lead phosphite, dibasic	4.1	UN2989	II	Prohibited	Prohibited
Lead phosphite, dibasic	4.1	UN2989	III	Prohibited	4A
Lead picrate (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Lead styphnate (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Lead styphnate, wetted *or* Lead trinitroresorcinate, wetted *with not less than 20 percent water or mixture of alcohol and water, by mass*	1.1A	UN0130	II	Prohibited	Prohibited
Lead sulfate *with more than 3 percent free acid*	8	UN1794	II	8A	8A
Lead trinitroresorcinate, *see* Lead styphnate, *etc.*					
Lifesaving appliances, not self-inflating *containing dangerous goods as equipment*	9	UN3072	n/a	Prohibited	Prohibited
Lifesaving appliances, self-inflating	9	UN2990	n/a	Prohibited	Prohibited
Lighters, new or empty, purged of all residual fuel and vapors	n/a				
Lighter replacement cartridges containing liquified petroleum gases, see Lighter refills *containing flammable gas*					
Lighters *containing flammable gas*	2.1	UN1057	n/a	Prohibited	3C
Lighter refills *containing flammable gas not exceeding 4 fluid ounces (7.22 cubic inches) and 65 grams of flammable gas*	2.1	UN1057	n/a	Prohibited	3C
Lighters, non-pressurized, containing flammable liquid	3	NA1057	II	Prohibited	3C
Lighter replacement cartridges containing liquified petroleum gases see Lighter refills *containing flammable gas. Etc.*					
Lighters, fuse	1.4S	UN0131	II	Prohibited	Prohibited
Lime, unslaked, see Calcium oxide					
Liquified gas, flammable, n.o.s.	2.1	UN3161	n/a	Prohibited	2A
Liquified gas, n.o.s.	2.2	UN3163	n/a	2B	2B
Liquified gas, oxidizing, n.o.s.	2.2	UN3157	n/a	2B	2B

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Liquified gas, toxic, corrosive, n.o.s. *Inhalation Hazard Zone A, B, C, or D*	2.3	UN3308	n/a	Prohibited	Prohibited
Liquified gas, toxic, flammable, corrosive, n.o.s. *Inhalation Hazard Zone A, B, C, or D*	2.3	UN3309	n/a	Prohibited	Prohibited
Liquified gas, toxic, flammable, n.o.s. *Inhalation Hazard Zone A, B, C, or D*	2.3	UN3160	n/a	Prohibited	Prohibited
Liquified gas, toxic, n.o.s. *Inhalation Hazard Zone A, B, C, or D*	2.3	UN3162	n/a	Prohibited	Prohibited
Liquified gas, toxic, oxidizing, corrosive, n.o.s. *Inhalation Hazard Zone A, B, C, or D*	2.3	UN3310	n/a	Prohibited	Prohibited
Liquified gas, toxic, oxidizing, n.o.s. *Inhalation Hazard Zone A, B, C, or D*	2.3	UN3307	n/a	Prohibited	Prohibited
Liquified gases, *nonflammable charged with nitrogen, carbon dioxide, or air*	2.2	UN1058	n/a	2B	2B
Liquified hydrocarbon gas, see Hydrocarbon gas mixtures, liquified, n.o.s., *etc.*					
Liquified natural gas, see Methane, etc. (UN1972)					
Liquified petroleum gas, *see* Petroleum gases, liquified					
Lithium	4.3	UN1415	I	Prohibited	4A
Lithium acetylide ethylenediamine complex, see Water reactive solid *etc.*					
Lithium aluminum hydride	4.3	UN1410	I	Prohibited	Prohibited
Lithium aluminum hydride, ethereal	4.3	UN1411	I	Prohibited	Prohibited
Lithium borohydride	4.3	UN1413	I	Prohibited	Prohibited
Lithium ferrosilicon	4.3	UN2830	II	Prohibited	4A
Lithium hydride	4.3	UN1414	I	Prohibited	4A
Lithium hydride, fused solid	4.3	UN2805	II	Prohibited	4A
Lithium hydroxide, monohydrate *or* Lithium hydroxide, solid	8	UN2680	II	8A	8A
Lithium hydroxide, solution	8	UN2679	II, III	8A	8A
Lithium hypochlorite, dry *or* Lithium hypochlorite mixture	5.1	UN1471	II	5A	5A
Lithium-ion batteries (including lithium polymer batteries)	9	UN3480	N/A	Prohibited	9D
Lithium-ion batteries (including lithium polymer batteries) contained in equipment	9	UN3481	N/A	9D	9D
Lithium-ion batteries (including lithium polymer batteries) packed with equipment	9	UN3481	N/A	9D	9D

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Lithium metal batteries (including lithium alloy batteries)	9	UN3090	N/A	Prohibited	9D
Lithium metal batteries (including lithium alloy batteries) contained in equipment	9	UN3091	N/A	9D	9D
Lithium metal batteries (including lithium alloy batteries) packed with equipment	9	UN3091	N/A	9D	9D
Lithium peroxide	5.1	UN1472	II	5A	5A
Lithium silicon	4.3	UN1417	II	Prohibited	5A
LNG, see Methane etc. (UN1972)					
London purple	6.1	UN1621	II	6A	6A
LPG, see Petroleum gases, liquified					
Lye, see Sodium hydroxide solutions					
M					
Magnesium *or* Magnesium alloys *with more than 50 percent magnesium in pellets, turnings, or ribbons*	4.1	UN1869	III	Prohibited	4A
Magnesium aluminum phosphide	4.3	UN1419	I	Prohibited	Prohibited
Magnesium arsenate	6.1	UN1622	II	Prohibited	Prohibited
Magnesium bisulfite solution, see Bisulfites, aqueous solutions, n.o.s.					
Magnesium bromate	5.1	UN1473	II	5A	5A
Magnesium chlorate	5.1	UN2723	II	5A	5A
Magnesium diamide	4.2	UN2004	II	Prohibited	Prohibited
Magnesium dross, wet or hot	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Magnesium fluorosilicate	6.1	UN2853	III	6A	6A
Magnesium granules, coated *particle size not less than 149 microns*	4.3	UN2950	III	Prohibited	Prohibited
Magnesium hydride	4.3	UN2010	I	Prohibited	Prohibited
Magnesium nitrate	5.1	UN1474	III	5A	5A
Magnesium perchlorate	5.1	UN1475	II	5A	5A
Magnesium peroxide	5.1	UN1476	II	5A	5A
Magnesium phosphide	4.3	UN2011	I	Prohibited	Prohibited
Magnesium, powder *or* Magnesium alloys, powder	4.3	UN1418	I	Prohibited	Prohibited
Magnesium, powder *or* Magnesium alloys, powder	4.3	UN1418	II, III	Prohibited	Prohibited
Magnesium scrap, see Magnesium etc. (UN1869)					
Magnesium silicide	4.3	UN2624	II	Prohibited	Prohibited
Maleic anhydride	8	UN2215	III	8A	8A
Maleic anhydride, molten	8	UN2215	III	Prohibited	Prohibited
Malononitrile	6.1	UN2647	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Mancozeb (manganese ethylenebisdithiocarbamate complex with zinc) see Maneb *etc.*					
Maneb *or* Maneb preparations *with not less than 60 percent maneb*	4.2	UN2210	III	Prohibited	Prohibited
Maneb stabilized *or* Maneb preparations, stabilized *against self-heating*	4.3	UN2968	III	Prohibited	Prohibited
Manganese nitrate	5.1	UN2724	III	5A	5A
Manganese resinate	4.1	UN1330	III	Prohibited	4A
Mannitan tetranitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Mannitol hexanitrate (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Mannitol hexanitrate, wetted *or* Nitromannite, wetted *with not less than 40 percent water, or mixture of alcohol and water, by mass*	1.1D	UN0133	II	Prohibited	Prohibited
Marine pollutants, liquid or solid, n.o.s., see Environmentally hazardous substances, liquid *or* solid, n.o.s.					
Matches, block, see Matches, strike anywhere					
Matches, fusee	4.1	UN2254	III	Prohibited	Prohibited
Matches, safety *(book, card, or strike on box)*	4.1	UN1944	III	Prohibited	4B
Matches, strike anywhere	4.1	UN1331	III	Prohibited	Prohibited
Matches, wax, Vesta	4.1	UN1945	III	Prohibited	Prohibited
Matting acid, see Sulfuric acid *etc.*					
Medicine, liquid, flammable, toxic, n.o.s.	3	UN3248	II	Prohibited	Prohibited
Medicine, liquid, flammable, toxic, n.o.s.	3	UN3248	III	Prohibited	3A
Medicine, liquid, toxic, n.o.s.	6.1	UN1851	II, III	6A	6A
Medicine, solid, toxic, n.o.s.	6.1	UN3249	II, III	6A	6A
Memtetrahydrophthalic anhydride, see Corrosive liquids, n.o.s.					
Mercaptans, liquid, flammable, n.o.s. *or* Mercaptan mixture, liquid, flammable, n.o.s.	3	UN3336	I, II, III	Prohibited	3A
Mercaptans, liquid, flammable, toxic, n.o.s. *or* Mercaptan mixtures, liquid, flammable, toxic, n.o.s.	3	UN1228	II	Prohibited	Prohibited
Mercaptans, liquid, flammable, toxic, n.o.s. *or* Mercaptan mixtures, liquid, flammable, toxic, n.o.s.	3	UN1228	III	Prohibited	3A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Mercaptans, liquid, toxic, flammable, n.o.s. *or* Mercaptan mixtures, liquid, toxic, flammable, n.o.s., *flashpoint not less than 23° C*	6.1	UN3071	II	Prohibited	Prohibited
5-Mercaptotetrazol-1-acetic acid	1.4C	UN0448	II	Prohibited	Prohibited
Mercuric arsenate	6.1	UN1623	II	Prohibited	Prohibited
Mercuric chloride	6.1	UN1624	II	Prohibited	Prohibited
Mercuric compounds, see Mercury compounds, *etc.*					
Mercuric nitrate	6.1	UN1625	II	Prohibited	Prohibited
Mercuric potassium cyanide	6.1	UN1626	I	Prohibited	Prohibited
Mercuric sulfocyanate, see Mercury thiocyanate					
Mercurol, see Mercury nucleate					
Mercurous azide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Mercurous compounds, see Mercury compounds, *etc.*					
Mercurous nitrate	6.1	UN1627	II	Prohibited	Prohibited
Mercury	8	UN2809	III	Prohibited	Prohibited
Mercury acetate	6.1	UN1629	II	Prohibited	Prohibited
Mercury acetylide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Mercury ammonium chloride	6.1	UN1630	II	Prohibited	Prohibited
Mercury based pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*	3	UN2778	I, II	Prohibited	Prohibited
Mercury based pesticides, liquid, toxic	6.1	UN3012	I, II	Prohibited	Prohibited
Mercury based pesticides, liquid, toxic	6.1	UN3012	III	6A	6A
Mercury based pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN3011	I, II	Prohibited	Prohibited
Mercury based pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN3011	III	6A	6A
Mercury based pesticides, solid, toxic	6.1	UN2777	I, II	Prohibited	Prohibited
Mercury based pesticides, solid, toxic	6.1	UN2777	III	6A	6A
Mercury benzoate	6.1	UN1631	II	Prohibited	Prohibited
Mercury bromides	6.1	UN1634	II	Prohibited	Prohibited
Mercury compounds, liquid, n.o.s.	6.1	UN2024	I, II	Prohibited	Prohibited
Mercury compounds, liquid, n.o.s.	6.1	UN2024	III	6A	6A
Mercury compounds, solid, n.o.s.	6.1	UN2025	I, II	Prohibited	Prohibited
Mercury compounds, solid, n.o.s.	6.1	UN2025	III	6A	6A
Mercury contained in manufactured articles	8	UN3506	III	8C	8C
Mercury cyanide	6.1	UN1636	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Mercury fulminate, wetted *with not less than 20 percent water, or mixture of alcohol and water, by mass*	1.1A	UN0135	II	Prohibited	Prohibited
Mercury gluconate	6.1	UN1637	II	Prohibited	Prohibited
Mercury iodide aquabasic ammonobasic (Iodide of Millon's base)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Mercury iodide	6.1	UN1638	II	Prohibited	Prohibited
Mercury nitride	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Mercury nucleate	6.1	UN1639	II	Prohibited	Prohibited
Mercury oleate	6.1	UN1640	II	Prohibited	Prohibited
Mercury oxide	6.1	UN1641	II	Prohibited	Prohibited
Mercury oxycyanide, desensitized	6.1	UN1642	II	Prohibited	Prohibited
Mercury oxycyanide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Mercury potassium iodide	6.1	UN1643	II	Prohibited	Prohibited
Mercury salicylate	6.1	UN1644	II	Prohibited	Prohibited
Mercury sulfates	6.1	UN1645	II	Prohibited	Prohibited
Mercury thiocyanate	6.1	UN1646	II	Prohibited	Prohibited
Mesityl oxide	3	UN1229	III	Prohibited	Prohibited
Metal carbonyls, liquid, n.o.s.	6.1	UN3281	I, II	Prohibited	Prohibited
Metal carbonyls, liquid, n.o.s.	6.1	UN3281	III	6A	6A
Metal carbonyls, solid, n.o.s.	6.1	UN3466	I, II	Prohibited	Prohibited
Metal carbonyls, solid, n.o.s.	6.1	UN3466	III	6A	6A
Metal catalyst, dry	4.2	UN2881	I, II	Prohibited	Prohibited
Metal catalyst, dry	4.2	UN2881	III	Prohibited	4A
Metal catalyst, wetted *with a visible excess of liquid*	4.2	UN1378	II	Prohibited	Prohibited
Metal hydrides, flammable, n.o.s.	4.1	UN3182	II, III	Prohibited	3A
Metal hydrides, water reactive, n.o.s.	4.3	UN1409	I	Prohibited	Prohibited
Metal hydrides, water reactive, n.o.s.	4.3	UN1409	II	Prohibited	Prohibited
Metal powder, self-heating, n.o.s.	4.2	UN3189	II, III	Prohibited	Prohibited
Metal powders, flammable, n.o.s.	4.1	UN3089	II, III	Prohibited	4A
Metal salts of methyl nitramine (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Metal salts of organic compounds, flammable, n.o.s.	4.1	UN3181	II, III	Prohibited	4A
Metaldehyde	4.1	UN1332	III	Prohibited	4A
Metallic substances, water reactive, n.o.s.	4.3	UN3208	I, II, III	Prohibited	Prohibited
Metallic substance, water reactive, self-heating, n.o.s.	4.3	UN3209	I, II, III	Prohibited	Prohibited
Methacrylaldehyde, inhibited	3	UN2396	II	Prohibited	Prohibited
Methacrylic acid, inhibited	8	UN2531	III	8A	8A
Methacrylonitrile, inhibited	3	UN3079	I	Prohibited	Prohibited
Methallyl alcohol	3	UN2614	III	Prohibited	3A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Methane and hydrogen, mixtures, see Hydrogen and methane, mixtures *etc.*					
Methane, compressed *or* Natural gas, compressed *(with high methane content)*	2.1	UN1971	n/a	Prohibited	2A
Methane, refrigerated liquid *(cryogenic liquid) or* Natural gas, refrigerated liquid *(cryogenic liquid), with high methane content*	2.1	UN1972	n/a	Prohibited	2A
Methanesulfonyl chloride	6.1	UN3246	I	Prohibited	Prohibited
Methanol	3	UN1230	II	Prohibited	3A
Methazoic acid	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
4-Methoxy-4-methylpentan-2-one	3	UN2293	III	Prohibited	3A
1-Methoxy-2-propanol	3	UN3092	III	Prohibited	3A
Methoxymethyl isocyanate	6.1	UN2605	I	Prohibited	Prohibited
Methyl-2-chloropropionate	3	UN2933	III	Prohibited	3A
Methyl acetate	3	UN1231	II	Prohibited	3A
Methyl acetylene and propadiene mixtures, stabilized	2.1	UN1060	n/a	Prohibited	2A
Methyl acrylate, stabilized	3	UN1919	II	Prohibited	3A
Methyl alcohol, see Methanol					
Methyl allyl chloride	3	UN2554	II	Prohibited	3A
Methyl amyl ketone, see Amyl methyl ketone					
Methyl bromide	2.3	UN1062	n/a	Prohibited	Prohibited
Methyl bromide and chloropicrin mixtures with more than 2 percent chloropicrin, see Chloropicrin and methyl bromide mixtures					
Methyl bromide and chloropicrin mixtures with not more than 2 percent chloropicrin, see Methyl bromide					
Methyl bromide and ethylene dibromide mixtures, liquid	6.1	UN1647	I	Prohibited	Prohibited
Methyl bromoacetate	6.1	UN2643	II	Prohibited	Prohibited
2-Methyl-1-butene	3	UN2459	I	Prohibited	Prohibited
2-Methyl-2-butene	3	UN2460	II	Prohibited	Prohibited
3-Methyl-1-butene	3	UN2561	I	Prohibited	Prohibited
Methyl tertbutyl ether	3	UN2398	II	Prohibited	3A
Methyl butyrate	3	UN1237	II	Prohibited	3A
Methyl chloride, *or* Refrigerant gas R 40	2.1	UN1063		Prohibited	2A
Methyl chloride and chloropicrin mixtures, see Chloropicrin and methyl chloride mixtures					

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Methyl chloride and methylene chloride mixtures	2.1	UN1912	n/a	Prohibited	2A
Methyl chloroacetate	6.1	UN2295	I	Prohibited	Prohibited
Methyl chlorocarbonate, see Methyl chloroformate					
Methyl chloroform, see 1,1,1-Trichloroethane					
Methyl chloroformate	6.1	UN1238	I	Prohibited	Prohibited
Methyl chloromethyl ether	6.1	UN1239	I	Prohibited	Prohibited
Methyl dichloroacetate	6.1	UN2299	III	6A	6A
Methyl ethyl ether, see Ethyl methyl ether					
Methyl ethyl ketone peroxide, in solution with more than 9 percent by mass active oxygen	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
2-Methyl-5-ethylpyridine	6.1	UN2300	III	6A	6A
Methyl ethyl ketone, *see* Ethyl methyl ketone					
Methyl fluoride, *or* Refrigerant gas R 41	2.1	UN2454	n/a	Prohibited	2A
Methyl formate	3	UN1243	I	Prohibited	3A
2-Methyl-2-heptanethiol	6.1	UN3023	I	Prohibited	Prohibited
Methyl iodide	6.1	UN2644	I	Prohibited	Prohibited
Methyl isobutyl carbinol	3	UN2053	III	Prohibited	3A
Methyl isobutyl ketone	3	UN1245	II	Prohibited	3A
Methyl isobutyl ketone peroxide, in solution with more than 9 percent by mass active oxygen	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Methyl isocyanate	6.1	UN2480	I	Prohibited	Prohibited
Methyl isopropenyl ketone, inhibited	3	UN1246	II	Prohibited	3A
Methyl isothiocyanate	6.1	UN2477	I	Prohibited	Prohibited
Methyl isovalerate	3	UN2400	II	Prohibited	3A
Methyl magnesium bromide, in ethyl ether	4.3	UN1928	I	Prohibited	Prohibited
Methyl mercaptan	2.3	UN1064	n/a	Prohibited	Prohibited
Methyl mercaptopropionaldehyde, see 4-Thiapentanal					
Methyl methacrylate monomer, stabilized	3	UN1247	II	Prohibited	3A
Methyl nitramine (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Methyl nitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Methyl nitrite	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Methyl norbornene dicarboxylic anhydride, see Corrosive liquids, n.o.s.					
Methyl orthosilicate	6.1	UN2606	I	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Methyl phosphonic dichloride	6.1	NA9206	I	Prohibited	Prohibited
Methyl phosphonothioic dichloride, anhydrous, see Corrosive liquids, n.o.s.					
Methyl phosphonous dichloride, pyrophoric liquid	6.1	NA2845	I	Prohibited	Prohibited
Methyl picric acid (heavy metal salts of)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Methyl propionate	3	UN1248	II	Prohibited	3A
Methyl propyl ether	3	UN2612	II	Prohibited	3A
Methyl propyl ketone	3	UN1249	II	Prohibited	3A
Methyl sulfate, see Dimethyl sulfate					
Methyl sulfide, see Dimethyl sulfide					
Methyl trichloroacetate	6.1	UN2533	III	6A	6A
Methyl trimethylol methane trinitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Methyl vinyl ketone, stabilized	6.1	UN1251	I	Prohibited	Prohibited
Methylal	3	UN1234	II	Prohibited	Prohibited
Methylamine, anhydrous	2.1	UN1061	n/a	Prohibited	2A
Methylamine, aqueous solution	3	UN1235	II	Prohibited	3A
Methylamine dinitramine and dry salts thereof	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Methylamine nitroform	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Methylamine perchlorate (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Methylamyl acetate	3	UN1233	III	Prohibited	3A
N-Methylaniline	6.1	UN2294	III	6A	6A
alpha-Methylbenzyl alcohol, solid	6.1	UN3438	III	6A	6A
alpha-Methylbenzyl alcohol, liquid	6.1	UN2937	III	6A	6A
3-Methylbutan-2-one	3	UN2397	II	Prohibited	3A
N-Methylbutylamine	3	UN2945	II	Prohibited	Prohibited
Methylchlorosilane	2.3	UN2534	n/a	Prohibited	Prohibited
Methylcyclohexane	3	UN2296	II	Prohibited	3A
Methylcyclohexanols, *flammable*	3	UN2617	III	Prohibited	3A
Methylcyclohexanone	3	UN2297	III	Prohibited	3A
Methylcyclopentane	3	UN2298	II	Prohibited	3A
Methyldichloroarsine	6.1	NA1556	I	Prohibited	Prohibited
Methyldichlorosilane	4.3	UN1242	I	Prohibited	Prohibited
Methylene chloride, see Dichloromethane					
Methylene glycol dinitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
2-Methylfuran	3	UN2301	II	Prohibited	3A
a-Methylglucoside tetranitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
a-Methylglycerol trinitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
5-Methylhexan-2-one	3	UN2302	III	Prohibited	3A
Methylhydrazine	6.1	UN1244	I	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
4-Methylmorpholine *or* n-methylmorpholine	3	UN2535	II	Prohibited	Prohibited
Methylpentadienes	3	UN2461	II	Prohibited	3A
2-Methylpentan-2-ol	3	UN2560	III	Prohibited	3A
Methylpentanes, see Hexanes					
Methylphenyldichlorosilane	8	UN2437	II	8A	8A
1-Methylpiperidine	3	UN2399	II	Prohibited	Prohibited
Methyltetrahydrofuran	3	UN2536	II	Prohibited	3A
Methyltrichlorosilane	3	UN1250	I	Prohibited	Prohibited
alpha-Methylvaleraldehyde	3	UN2367	II	Prohibited	3A
Mine rescue equipment containing carbon dioxide, see Carbon dioxide					
Mines *with bursting charge*	1.1D	UN0137	II	Prohibited	Prohibited
Mines *with bursting charge*	1.1F	UN0136	II	Prohibited	Prohibited
Mines *with bursting charge*	1.2D	UN0138	II	Prohibited	Prohibited
Mines *with bursting charge*	1.2F	UN0294	II	Prohibited	Prohibited
Mixed acid, see Nitrating acid, mixtures *etc.*					
Mobility aids, see Battery powered equipment *or* Battery powered vehicle					
Model rocket motor	1.4C	NA0276	II	Prohibited	Prohibited
Model rocket motor	1.4S	NA0323	II	Prohibited	1A
Molybdenum pentachloride	8	UN2508	III	8A	8A
Monochloroacetone (unstabilized)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Monochloroethylene, see Vinyl chloride, stabilized					
Monoethanolamine, see Ethanolamine solutions					
Monoethylamine, see Ethylamine					
Morpholine	3	UN2054	III	Prohibited	3A
Morpholine, aqueous, mixture, see Corrosive liquids, n.o.s.					
Motor fuel anti-knock compounds, *see* Motor fuel anti-knock mixtures					
Motor fuel anti-knock mixture, flammable	6.1	UN3483	I	Prohibited	Prohibited
Motor fuel anti-knock mixtures	6.1	UN1649	I	Prohibited	Prohibited
Motor spirit, *see* Gasoline					
Muriatic acid, see Hydrochloric acid solution					
Musk xylene, *see* 5-tert-Butyl-2,4,6-trinitro-m-xylene					

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
N					
Naphtha see Petroleum distillates n.o.s.					
Naphthalene, crude *or* Naphthalene, refined	4.1	UN1334	III	Prohibited	4A
Naphthalene diozonide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Naphthalene, molten	4.1	UN2304	III	Prohibited	4A
Alpha-Naphthylamine	6.1	UN2077	III	6A	6A
Beta-Naphthylamine, solid	6.1	UN1650	II	Prohibited	Prohibited
Beta-Naphthylamine, solution	6.1	UN3411	II, III	Prohibited	Prohibited
Naphthylamineperchlorate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Naphthylthiourea	6.1	UN1651	II	Prohibited	Prohibited
Naphthylurea	6.1	UN1652	II	Prohibited	Prohibited
Natural gases (with high methane content), see Methane, *etc. (UN1971, UN1972)*					
Neohexane, see Hexanes					
Neon, compressed	2.2	UN1065	n/a	2B	2B
Neon, refrigerated liquid *(cryogenic liquid)*	2.2	UN1913	n/a	Prohibited	Prohibited
New explosive or explosive device, see 49 CFR 173.51 and 173.56	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited
Nickel carbonyl	6.1	UN1259	I	Prohibited	Prohibited
Nickel cyanide	6.1	UN1653	II	Prohibited	Prohibited
Nickel nitrate	5.1	UN2725	III	5A	5A
Nickel nitrite	5.1	UN2726	III	5A	5A
Nickel picrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Nicotine	6.1	UN1654	II	Prohibited	Prohibited
Nicotine compounds, liquid, n.o.s. *or* Nicotine preparations, liquid, n.o.s.	6.1	UN3144	I, II	Prohibited	Prohibited
Nicotine compounds, liquid, n.o.s. *or* Nicotine preparations, liquid, n.o.s.	6.1	UN3144	III	6A	6A
Nicotine compounds, solid, n.o.s. *or* Nicotine preparations, solid, n.o.s.	6.1	UN1655	I, II	Prohibited	Prohibited
Nicotine compounds, solid, n.o.s. *or* Nicotine preparations, solid, n.o.s.	6.1	UN1655	III	6A	6A
Nicotine hydrochloride liquid *or* solution	6.1	UN1656	II	Prohibited	Prohibited
Nicotine hydrochloride, solid	6.1	UN3444	II	Prohibited	Prohibited
Nicotine salicylate	6.1	UN1657	II	Prohibited	Prohibited
Nicotine sulfate, *solid*	6.1	UN3445	II	Prohibited	Prohibited
Nicotine sulfate, *solution*	6.1	UN1658	II	Prohibited	Prohibited
Nicotine tartrate	6.1	UN1659	II	Prohibited	Prohibited
Nitrated paper (unstable)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Nitrates of diazonium compounds	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Nitrates, inorganic, aqueous solution, n.o.s.	5.1	UN3218	II, III	5A	5A
Nitrates, inorganic, n.o.s.	5.1	UN1477	II, III	5A	5A
Nitrating acid mixtures, *with more than 50 percent nitric acid*	8	UN1796	I	Prohibited	Prohibited
Nitrating acid mixtures, *with not more than 50 percent nitric acid*	8	UN1796	II	Prohibited	Prohibited
Nitrating acid mixtures, spent *with more than 50 percent nitric acid*	8	UN1826	I	Prohibited	Prohibited
Nitrating acid mixtures, spent *with not more than 50 percent nitric acid*	8	UN1826	II	Prohibited	Prohibited
Nitric acid *other than red fuming, with more than 70 percent nitric acid*	8	UN2031	I	Prohibited	Prohibited
Nitric acid *other than red fuming, with not more than 70 percent nitric acid*	8	UN2031	II	Prohibited	Prohibited
Nitric acid, red fuming	8	UN2032	I	Prohibited	Prohibited
Nitric oxide, compressed	2.3	UN1660	n/a	Prohibited	Prohibited
Nitric oxide and dinitrogen tetroxide mixtures *or* Nitric oxide and nitrogen dioxide mixtures	2.3	UN1975	n/a	Prohibited	Prohibited
Nitriles, flammable, toxic, n.o.s.	3	UN3273	I, II	Prohibited	Prohibited
Nitriles, toxic, flammable, n.o.s.	6.1	UN3275	I, II	Prohibited	Prohibited
Nitriles, toxic, liquid, n.o.s.	6.1	UN3276	I, II	Prohibited	Prohibited
Nitriles, toxic, liquid, n.o.s.	6.1	UN3276	III	6A	6A
Nitriles, toxic, solid, n.o.s.	6.1	UN3439	I, II,	Prohibited	Prohibited
Nitriles, toxic, solid, n.o.s.	6.1	UN3439	III	6A	6A
Nitrites, inorganic, aqueous solution, n.o.s.	5.1	UN3219	II, III	5A	5A
Nitrites, inorganic, n.o.s.	5.1	UN2627	II	5A	5A
3-Nitro-4-chlorobenzotrifluoride	6.1	UN2307	II	Prohibited	Prohibited
Nitro isobutane triol trinitrate	Forbidden			Prohibited	Prohibited
Nitro urea	1.1D	UN0147	II	Prohibited	Prohibited
2-Nitro-2-methylpropanol nitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
6-Nitro-4-diazotoluene-3-sulfonic acid (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
N-Nitro-N-methylglycolamide nitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
N-Nitroaniline	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Nitroanilines (o-; m-; p-;)	6.1	Prohibited	Prohibited	Prohibited	Prohibited
Nitroanisole, liquid	6.1	UN2730	III	6A	6A
Nitroanisole, solid	6.1	UN3458	III	6A	6A
Nitrobenzene	6.1	UN1662	II	Prohibited	Prohibited
m-Nitrobenzene diazonium perchlorate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Nitrobenzenesulfonic acid	8	UN2305	II	8A	8A
Nitrobenzol, see Nitrobenzene					
5-Nitrobenzotriazol	1.1D	UN0385	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Nitrobenzotrifluorides, liquid	6.1	UN2306	II	Prohibited	Prohibited
Nitrobenzotrifluorides, solid	6.1	UN3431	II	Prohibited	Prohibited
Nitrobromobenzenes *liquid*	6.1	UN2732	III	6A	6A
Nitrobromobenzenes *solid*	6.1	UN3459	III	6A	6A
Nitrocellulose, *with not more than 12.6 percent, by dry mass* mixture with *or* without plasticizer, with *or* without pigment	4.1	UN2557	II	Prohibited	4A
Nitrocellulose, *dry or wetted with less than 25 percent water (or alcohol), by mass*	1.1D	UN0340	II	Prohibited	Prohibited
Nitrocellulose membrane filters, *with not more than 12.6 percent nitrogen, by dry mass*	4.1	UN3270	II	Prohibited	4A
Nitrocellulose, plasticized *with not less than 18 percent plasticizing substance, by mass*	1.3C	UN0343	II	Prohibited	Prohibited
Nitrocellulose, solution, flammable *with not more than 12.6 percent nitrogen, by mass, and not more than 55 percent nitrocellulose*	3	UN2059	II, III	Prohibited	3A
Nitrocellulose, *unmodified or plasticized with less than 18 percent plasticizing substance, by mass*	1.1D	UN0341	II	Prohibited	Prohibited
Nitrocellulose, wetted *with not less than 25 percent alcohol, by mass*	1.3C	UN0342	II	Prohibited	Prohibited
Nitrocellulose, with alcohol *with not less than 25 percent alcohol, by mass, and with not more than* 12.6 percent nitrogen, by dry mass	4.1	UN2556	II	Prohibited	4A
Nitrocellulose with water *with not less than 25 percent water, by mass*	4.1	UN2555	II	Prohibited	4A
Nitrochlorobenzene, see Chloronitrobenzenes *etc.*					
Nitrocresols, solid	6.1	UN2446	III	6A	6A
Nitrocresols, liquid	6.1	UN3434	III	6A	6A
Nitroethane	3	UN2842	III	Prohibited	3A
Nitroethyl nitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Nitroethylene polymer	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Nitrogen, compressed	2.2	UN1066	n/a	2B	2B
Nitrogen dioxide, see Dinitrogen tetroxide					
Nitrogen fertilizer solution, see Fertilizer ammoniating solution etc.					
Nitrogen peroxide, see Dinitrogen tetroxide					
Nitrogen, refrigerated liquid *cryogenic liquid*	2.2	UN1977	n/a	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Nitrogen tetroxide and nitric oxide mixtures, see Nitric oxide and nitrogen tetroxide mixtures					
Nitrogen tetroxide, see Dinitrogen tetroxide					
Nitrogen trichloride	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Nitrogen trifluoride,	2.2	UN2451	n/a	Prohibited	Prohibited
Nitrogen triiodide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Nitrogen triiodide monoamine	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Nitrogen trioxide	2.3	UN2421	n/a	Prohibited	Prohibited
Nitroglycerin, desensitized *with not less than 40 percent non-volatile water insoluble phlegmatizer, by mass*	1.1D	UN0143	II	Prohibited	Prohibited
Nitroglycerin, liquid, not desensitized	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Nitroglycerin mixture, desensitized, liquid, flammable, n.o.s. *with not more than 30 percent nitroglycerin, by mass*	3	UN3343	n/a	Prohibited	Prohibited
Nitroglycerin mixture, desensitized, liquid, n.o.s. *with not more than* 30 percent nitroglycerin, by mass	3	UN3357	II	Prohibited	Prohibited
Nitroglycerin mixture, desensitized, solid, n.o.s. *with more than 2 percent but not more than 10 percent nitroglycerin, by mass*	4.1	UN3319	II	Prohibited	Prohibited
Nitroglycerin, solution in alcohol, with *more than 1 percent but not more than 5 percent nitroglycerin*	3	UN3064	II	Prohibited	Prohibited
Nitroglycerin, solution in alcohol, with *more than 1 percent but not more than 10 percent nitroglycerin*	1.1D	UN0144	II	Prohibited	Prohibited
Nitroglycerin, solution in alcohol, with *not more than 1 percent nitroglycerin*	3	UN1204	II	Prohibited	Prohibited
Nitroguanidine nitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Nitroguanidine *or* Picrite, *dry or wetted with less than 20 percent water, by mass*	1.1D	UN0282	II	Prohibited	Prohibited
Nitroguanidine, wetted *or* Picrite, *wetted with not less than 20 percent water, by mass*	4.1	UN1336	I	Prohibited	Prohibited
1-Nitrohydantoin	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Nitrohydrochloric acid	8	UN1798	I	Prohibited	Prohibited
Nitromannite (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Nitromannite, wetted, *see* Mannitol hexanitrate, *etc.*					
Nitromethane	3	UN1261	II	Prohibited	3A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Nitromuriatic acid, see Nitrohydrochloric acid					
Nitronaphthalene	4.1	UN2538	III	Prohibited	4A
Nitophenols (o-; m-; p-;)	6.1	UN1663	III	6A	6A
m-Nitrophenyldinitro methane	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
4-Nitrophenylhydrazine, *with not less than 30 percent water, by mass*	4.1	UN3376	I	Prohibited	Prohibited
Nitropropanes	3	UN2608	III	Prohibited	3A
p-Nitrosodimethylaniline	4.2	UN1369	II	Prohibited	Prohibited
Nitrostarch, *dry or wetted with less than 20 percent water, by mass*	1.1D	UN0146	II	Prohibited	Prohibited
Nitrostarch, *wetted with not less than 20 percent water, by mass*	4.1	UN1337	I	Prohibited	Prohibited
Nitrosugars (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Nitrosyl chloride	2.3	UN1069	n/a	Prohibited	Prohibited
Nitrosylsulfuric acid, liquid	8	UN2308	II	8A	8A
Nitrosylsulfuric acid, solid	8	UN3456	II	8A	8A
Nitrotoluenes, *liquid*	6.1	UN1664	II	Prohibited	Prohibited
Nitrotoluenes, *solid*	6.1	UN3446	II	Prohibited	Prohibited
Nitrotoluidines (mono)	6.1	UN2660	III	6A	6A
Nitrotriazolone *or* NTO	1.1D	UN0490	II	Prohibited	Prohibited
Nitrous oxide	2.2	UN1070	n/a	2B	2B
Nitrous oxide, refrigerated liquid	2.2	UN2201	n/a	Prohibited	Prohibited
Nitroxylenes, liquid	6.1	UN1665	II	Prohibited	Prohibited
Nitroxylenes, solid	6.1	UN3447	II	Prohibited	Prohibited
Nitroxylol, see Nitroxylenes					
Nonanes	3	UN1920	III	Prohibited	3A
Non-flammable gas, n.o.s., see Compressed gas, etc. *or* Liquified gases, *etc.*					
Nonliquified gases, see Compressed gases, *etc.*					
Nonliquified hydrocarbon gas, see Hydrocarbon gas mixture, compressed, n.o.s.					
Nonyltrichlorosilane	8	UN1799	II	Prohibited	Prohibited
Nordhausen acid, see Sulfuric acid, fuming *etc.*					
2,5-Norbormadiene, stabilized, see Bicyclo [2,2,1] hepta-2,5-diene, stabilized					
O					
Octadecyltrichlorosilane	8	UN1800	II	Prohibited	Prohibited
Octadiene	3	UN2309	II	Prohibited	3A
1,7-Octadiene-3,5-diyne1,8-dimethoxy- 9-octadecynoic acid	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Octafluorobut-2-ene *or* Refrigerant gas R 1318	2.2	UN2422	n/a	Prohibited	Prohibited
Octafluorocyclobutane, *or* Refrigerant gas RC 318	2.2	UN1976	n/a	Prohibited	Prohibited
Octafluoropropane *or* Refrigerant gas R 218	2.2	UN2424	n/a	Prohibited	Prohibited
Octanes	3	UN1262	II	Prohibited	3A
Octogen, *see* Cyclotetramethylene tetranitramine, etc.					
Octolite *or* Octol, *dry or wetted with less than 15 percent water, by mass*	1.1D	UN0266	II	Prohibited	Prohibited
Octonal	1.1D	UN0496	n/a	Prohibited	Prohibited
Octyl aldehydes	3	UN1191	III	Prohibited	3A
Octyltrichlorosilane	8	UN1801	II	Prohibited	Prohibited
Oil gas, compressed	2.3	UN1071	n/a	Prohibited	Prohibited
Oleum, see Sulfuric acid, fuming *etc.*					
Organic peroxide, type A, liquid or solid	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Organic peroxide type B, liquid	5.2	UN3101	II	5A	5A
Organic peroxide type B, liquid, temperature controlled	5.2	UN3111	II	Prohibited	Prohibited
Organic peroxide type B, solid	5.2	UN3102	II	5A	5A
Organic peroxide type B, solid, temperature controlled	5.2	UN3112	II	Prohibited	Prohibited
Organic peroxide type C, liquid	5.2	UN3103	II	5A	5A
Organic peroxide type C, liquid, temperature controlled	5.2	UN3113	II	Prohibited	Prohibited
Organic peroxide type C, solid	5.2	UN3104	II	5A	5A
Organic peroxide type C, solid, temperature controlled	5.2	UN3114	II	Prohibited	Prohibited
Organic peroxide type D, liquid	5.2	UN3105	II	5A	5A
Organic peroxide type D, liquid, temperature controlled	5.2	UN3115	II	Prohibited	Prohibited
Organic peroxide type D, solid	5.2	UN3106	II	5A	5A
Organic peroxide type D, solid, temperature controlled	5.2	UN3116	II	Prohibited	Prohibited
Organic peroxide type E, liquid	5.2	UN3107	II	5A	5A
Organic peroxide type E, liquid, temperature controlled	5.2	UN3117	II	Prohibited	Prohibited
Organic peroxide type E, solid	5.2	UN3108	II	5A	5A
Organic peroxide type E, solid, temperature controlled	5.2	UN3118	II	Prohibited	Prohibited
Organic peroxide type F, liquid	5.2	UN3109	II	5A	5A
Organic peroxide type F, liquid, temperature controlled	5.2	UN3119	II	Prohibited	Prohibited
Organic peroxide type F, solid	5.2	UN3110	II	5A	5A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Organic peroxide type F, solid, temperature controlled	5.2	UN3120	II	Prohibited	Prohibited
Organic phosphate, mixed with compressed gas *or* Organic phosphate compound, mixed with compressed gas *or* Organic phosphorous compound, mixed with compressed gas	2.3	NA1955	n/a	Prohibited	Prohibited
Organic pigments, self-heating	4.2	UN3313	II, III	Prohibited	Prohibited
Organoarsenic compound, liquid, n.o.s.	6.1	UN3280	I, II	Prohibited	Prohibited
Organoarsenic compound, liquid, n.o.s.	6.1	UN3280	III	6A	6A
Organoarsenic compound, solid, n.o.s.	6.1	UN3465	I	Prohibited	Prohibited
Organoarsenic compound, solid, n.o.s.	6.1	UN3465	II, III	6A	6A
Organochlorine pesticides liquid, flammable, toxic, *flashpoint less than 23° C*	3	UN2762	I, II	Prohibited	Prohibited
Organochlorine pesticide, liquid, toxic	6.1	UN2996	I, II	Prohibited	Prohibited
Organochlorine pesticide, liquid, toxic	6.1	UN2996	III	6A	6A
Organochlorine pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN2995	I, II	Prohibited	Prohibited
Organochlorine pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN2995	III	6A	6A
Organochlorine pesticides, solid, toxic	6.1	UN2761	I, II	Prohibited	Prohibited
Organochlorine pesticides, solid, toxic	6.1	UN2761	III	6A	6A
Organometallic compound, toxic, liquid, n.o.s.	6.1	UN3282	I, II	Prohibited	Prohibited
Organometallic compound, toxic, liquid, n.o.s.	6.1	UN3282	III	6A	6A
Organometallic compound, toxic, solid, n.o.s.	6.1	UN3467	I, II	Prohibited	Prohibited
Organometallic compound, toxic, solid, n.o.s.	6.1	UN3467	III	6A	6A
Organometallic substance, liquid, pyrophoric	4.2	UN3392	I	Prohibited	Prohibited
Organometallic substance, liquid, pyro9phoric, water-reactive	4.2	UN3394	I	Prohibited	Prohibited
Organometallic substance, liquid, pyrophoric, water-reactive	4.3	UN3398	I, II, III	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Organometallic substance, liquid, pyrophoric, water-reactive, flammable	4.3	UN3399	I, II, III	Prohibited	Prohibited
Organometallic substance, solid, pyrophoric	4.2	UN3391	I	Prohibited	Prohibited
Organometallic substance, solid, pyrophoric, water-reactive	4.2	UN3393	I	Prohibited	Prohibited
Organometallic substance, solid, self heating	4.2	UN3400	II, III	Prohibited	Prohibited
Organometallic substance, solid, water-reactive	4.3	UN3395	I, II, III	Prohibited	Prohibited
Organometallic substance, solid, water-reactive, flammable	4.3	UN3396	I, II, III	Prohibited	Prohibited
Organometallic substance, solid, water-reactive, self-heating	4.3	UN3397	I, II, III	Prohibited	Prohibited
Organophosphorus compound, toxic, flammable, n.o.s.	6.1	UN3279	I, II	Prohibited	Prohibited
Organophosphorus compound, toxic, liquid, n.o.s.	6.1	UN3278	I, II	Prohibited	Prohibited
Organophosphorus compound, toxic, liquid, n.o.s.	6.1	UN3278	III	6A	6A
Organophosphorus compound, toxic, solid, n.o.s.	6.1	UN3464	I, II	Prohibited	Prohibited
Organophosphorus compound, toxic, solid, n.o.s.	6.1	UN3464	III	6A	6A
Organophosphorus pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*	3	UN2784	I, II	Prohibited	Prohibited
Organophosphorus pesticides, liquid, toxic	6.1	UN3018	I, II	Prohibited	Prohibited
Organophosphorus pesticides, liquid, toxic	6.1	UN3018	III	6A	6A
Organophosphorus pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN3017	I, II	Prohibited	Prohibited
Organophosphorus pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN3017	III	6A	6A
Organophosphorus pesticides, solid, toxic	6.1	UN2783	I, II	Prohibited	Prohibited
Organophosphorus pesticides, solid, toxic	6.1	UN2783	III	6A	6A
Organotin compounds, liquid, n.o.s.	6.1	UN2788	I, II	Prohibited	Prohibited
Organotin compounds, liquid, n.o.s	6.1	UN2788	III	6A	6A
Organotin compounds, solid, n.o.s.	6.1	UN3146	I, II	Prohibited	Prohibited
Organotin compounds, solid, n.o.s.	6.1	UN3146	III	6A	6A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Organotin pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*	3	UN2787	I, II	Prohibited	Prohibited
Organotin pesticides, liquid, toxic	6.1	UN3020	I, II	Prohibited	Prohibited
Organotin pesticides, liquid, toxic	6.1	UN3020	III	6A	6A
Organotin pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN3019	I, II	Prohibited	Prohibited
Organotin pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN3019	III	6A	6A
Organotin pesticides, solid, toxic	6.1	UN2786	I, II	Prohibited	Prohibited
Organotin pesticides, solid, toxic	6.1	UN2786	III	6A	6A
Orthonitroaniline, see Nitroanilines etc.					
Osmium tetroxide	6.1	UN2471	I	Prohibited	Prohibited
Other regulated substances, liquid, n.o.s.	9	NA3082	III	9C	9C
Other regulated substances, solid, n.o.s.	9	NA3077	III	9C	9C
Oxidizing liquid, corrosive, n.o.s.	5.1	UN3098	I, II	Prohibited	Prohibited
Oxidizing liquid, corrosive, n.o.s.	5.1	UN3098	III	5A	5A
Oxidizing liquid, n.o.s.	5.1	UN3139	I	Prohibited	Prohibited
Oxidizing liquid, n.o.s.	5.1	UN3139	II, III	5A	5A
Oxidizing liquid, toxic, n.o.s.	5.1	UN3099	I, II	Prohibited	Prohibited
Oxidizing liquid, toxic, n.o.s.	5.1	UN3099	III	5A	5A
Oxidizing solid, corrosive, n.o.s.	5.1	UN3085	I, II	Prohibited	Prohibited
Oxidizing solid, corrosive, n.o.s.	5.1	UN3085	III	5A	5A
Oxidizing solid, flammable, n.o.s.	5.1	UN3137	I	Prohibited	Prohibited
Oxidizing solid, n.o.s.	5.1	UN1479	I	Prohibited	Prohibited
Oxidizing solid, n.o.s.	5.1	UN1479	II, III	5A	5A
Oxidizing solid, self-heating, n.o.s.	5.1	UN3100	II	Prohibited	Prohibited
Oxidizing solid, toxic, n.o.s.	5.1	UN3087	I, II	Prohibited	Prohibited
Oxidizing solid, toxic, n.o.s.	5.1	UN3087	III	5A	5A
Oxidizing solid, water reactive, n.o.s.	5.1	UN3121	n/a	Prohibited	Prohibited
Oxygen, compressed	2.2	UN1072	n/a	2B	2B
Oxygen difluoride, compressed	2.3	UN2190	n/a	Prohibited	Prohibited
Oxygen generator, chemical *(including when contained in associated equipment, e.g., passenger service units (PSUs), portable breathing equipment (PBE), etc.)*	5.1	UN3356	II	Prohibited	Prohibited
Oxygen generator, chemical, spent	9	NA3356	III	Prohibited	Prohibited
Oxygen, refrigerated liquid (cryogenic liquid)	2.2	UN1073	n/a	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
P					
Paint *including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler, and liquid lacquer base*	3	UN1263	I, II, III	Prohibited	3A
Paint *or* Paint related material	8	UN3066	II, III	8A	8A
Paint related material *including paint thinning, drying, removing, or reducing compound*	3	UN1263	I, II, III	Prohibited	8A
Paint, corrosive, flammable *(including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)*	8	UN3470	II	Prohibited	8A
Paint related material corrosive, flammable *(including paint thinning or reducing compound)*	8	UN3470	II	Prohibited	8A
Paint, flammable, corrosive *(including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)*	3	UN3469	I, II	Prohibited	Prohibited
Paint, flammable, corrosive *(including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)*	3	UN3469	III	Prohibited	3A
Paint related material, flammable, corrosive *(including paint thinning or reducing compound)*	3	UN3469	I, II	Prohibited	Prohibited
Paint related material, flammable, corrosive *(including paint thinning or reducing compound)*	3	UN3469	III	Prohibited	3A
Paper, unsaturated oil treated *incompletely dried (including carbon paper)*	4.2	UN1379	III	Prohibited	Prohibited
Paraformaldehyde	4.1	UN2213	III	Prohibited	4A
Paraldehyde	3	UN1264	III	Prohibited	3A
Paranitroaniline, solid, see Nitroanilines *etc.*					
Parathion and compressed gas mixture	2.3	NA1967	n/a	Prohibited	Prohibited
Paris green, solid, see Copper acetoarsenite					
PCB, *see* Polychlorinated biphenyls					
Pentaporane	4.2	UN1380	I	Prohibited	Prohibited
Pentachloroethane	6.1	UN1669	II	Prohibited	Prohibited
Pentachlorophenol	6.1	UN3155	II	Prohibited	Prohibited
Pentaerythrite tetranitrate (dry)	Forbidden			Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Pentaerythrite tetranitrate *or* Pentaerythritol tetranitrate *or* PETN, *with not less than 7 percent wax by mass*	1.1D	UN0411	II	Prohibited	Prohibited
Pentaerythrite tetranitrate mixture, desensitized, solid, n.o.s. *or* Pentaerythritol tetranitrate mixture, desensitized, solid, n.o.s. or PETN mixture, desensitized, solid, n.o.s., *with more than 10 percent but not more than 20 percent PETN, by mass*	4.1	UN3344	II	Prohibited	Prohibited
Pentaerythrite tetranitrate, wetted *or* Pentaerythritol tetranitrate, wetted *or* PETN, wetted *with not less than 25 percent water, by mass, or* Pentaerythrite tetranitrate*, or* Pentaerythritol tetranitrate*, or* PETN, desensitized *with not less than 15 percent phlegmatizer by mass*	1.1D	UN0150	II	Prohibited	Prohibited
Pentaerythritol tetranitrate, *see* Pentaerythrite tetranitrate, *etc.*					
Pentafluoroethane *or* Refrigerant gas R 125	2.2	UN3220	n/a	2B	2B
Pentamethylheptane	3	UN2286	III	Prohibited	3A
Pentane-2,4-dione	3	UN2310	III	Prohibited	3A
Pentanes	3	UN1265	I, II	Prohibited	3A
Pentanitroaniline (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Pentanols	3	UN1105	II, III	Prohibited	3A
1-Pentene *(n-amylene)*	3	UN1108	I	Prohibited	3A
1-Pentol	8	UN2705	II	8A	8A
Pentolite, *dry or wetted with less than 15 percent water, by mass*	1.1D	UN0151	II	Prohibited	Prohibited
Pepper spray, see Aerosols, etc. *or* Self-defense spray, non-pressurized					
Perchlorates, inorganic, aqueous solution, n.o.s.	5.1	UN3211	II, III	5A	5A
Perchlorates, inorganic, n.o.s.	5.1	UN1481	II, III	5A	5A
Perchloric acid *with more than 50 percent but not more than 72 percent acid, by mass*	5.1	UN1873	I	Prohibited	Prohibited
Perchloric acid *with not more than 50 percent acid by mass*	8	UN1802	II	Prohibited	Prohibited
Perchloric acid, with more than 72 percent acid by mass	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Perchloroethylene, see Tetrachloroethylene					

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Perchloromethyl mercaptan	6.1	UN1670	I	Prohibited	Prohibited
Perchloryl fluoride	2.3	UN3083	n/a	Prohibited	Prohibited
Percussion caps, see Primers, cap type					
Perfluoro (ethyl vinyl ether)	2.1	UN3154	n/a	Prohibited	2A
Perfluoro (methyl vinyl ether)	2.1	UN3153	n/a	Prohibited	2A
Perfluoro-2-butene, see Octafluorobut-2-ene					
Perfumery products *with flammable solvents*	3	UN1266	II, III	Prohibited	3A
Permanganates, inorganic, aqueous solution, n.o.s.	5.1	UN3214	II	5A	5A
Permanganates, inorganic, n.o.s.	5.1	UN1482	II, III	5A	5A
Peroxides, inorganic, n.o.s.	5.1	UN1483	II	Prohibited	Prohibited
Peroxides, inorganic, n.o.s.	5.1	UN1483	III	5A	5A
Permeation devices for calibrating air quality monitoring equipment see CFR 49 173.175					
Peroxyacetic acid, with more than 43 percent and with more than 6 percent hydrogen peroxide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Persulfates, inorganic, aqueous solution, n.o.s.	5.1	UN3216	III	5A	5A
Persulfates, inorganic, n.o.s.	5.1	UN3215	III	5A	5A
Pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*	3	UN3021	I, II	Prohibited	Prohibited
Pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN2903	I, II	Prohibited	Prohibited
Pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN2903	III	6A	6A
Pesticides, liquid, toxic, n.o.s.	6.1	UN2902	I, II	Prohibited	Prohibited
Pesticides, liquid, toxic, n.o.s.	6.1	UN2902	III	6A	6A
Pesticides, solid, toxic, n.o.s.	6.1	UN2588	I, II	Prohibited	Prohibited
Pesticides, solid, toxic, n.o.s.	6.1	UN2588	III	6A	6A
PETN, *see* Pentaerythrite tetranitrate					
PETN/TNT, *see* Pentolite, *etc.*					
Petro, *see* Gasoline					
Petroleum crude oil	3	UN1267	I	Prohibited	Prohibited
Petroleum crude oil	3	UN1267	II, III	Prohibited	3A
Petroleum distillates, n.o.s. or Petroleum products, n.o.s.	3	UN1268	I, II, III	Prohibited	3A
Petroleum gases, liquified *or* Liquified petroleum gas	2.1	UN1075	n/a	Prohibited	2A
Petroleum oil	3	NA1270	I	Prohibited	Prohibited
Petroleum oil	3	NA1270	II, III	Prohibited	3A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Petroleum sour crude oil, flammable, toxic	3	UN3494	I, II, III	Prohibited	Prohibited
Phenacyl bromide	6.1	UN2645	II	Prohibited	Prohibited
Phenetidines	6.1	UN2311	III	6A	6A
Phenol, molten	6.1	UN2312	II	Prohibited	Prohibited
Phenol, solid	6.1	UN1671	II	Prohibited	Prohibited
Phenol solutions	6.1	UN2821	II	Prohibited	Prohibited
Phenol solutions	6.1	UN2821	III	6A	6A
Phenolsulfonic acid, liquid	8	UN1803	II	8A	8A
Phenoxyacetic acid derivative pesticide, liquid, flammable, toxic *flashpoint less than 23° C*	3	UN3346	I, II	Prohibited	Prohibited
Phenoxyacetic acid derivative pesticide, liquid, toxic	6.1	UN3348	I	Prohibited	Prohibited
Phenoxyacetic acid derivative pesticide, liquid, toxic	6.1	UN3348	II, III	6A	6A
Phenoxyacetic acid derivative pesticide, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN3347	I	Prohibited	Prohibited
Phenoxyacetic acid derivative pesticide, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN3347	II, III	6A	6A
Phenoxyacetic acid derivative pesticide, solid, toxic	6.1	UN3345	I	Prohibited	Prohibited
Phenoxyacetic acid derivative pesticide, solid, toxic	6.1	UN3345	II, III	6A	6A
Phenyl chloroformate	6.1	UN2746	II	Prohibited	Prohibited
Phenyl isocyanate	6.1	UN2487	I	Prohibited	Prohibited
Phenyl mercaptan	6.1	UN2337	I	Prohibited	Prohibited
Phenyl phosphorus dichloride	8	UN2798	II	8A	8A
Phenyl phosphorus thiodichloride	8	UN2799	II	8A	8A
Phenyl urea pesticides, liquid, toxic	6.1	UN3002	I, II	Prohibited	Prohibited
Phenyl urea pesticides, liquid, toxic	6.1	UN3002	III	6A	6A
Phenylacetonitrile, liquid	6.1	UN2470	III	6A	6A
Phenylacetyl chloride	8	UN2577	II	8A	8A
Phenylcarbylamine chloride	6.1	UN1672	I	Prohibited	Prohibited
m-Phenylene diaminediperchlorate (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Phenylenediamines *(o-; m-; p-;)*	6.1	UN1673	III	6A	6A
Phenylhydrazine	6.1	UN2572	II	Prohibited	Prohibited
Phenylmercuric acetate	6.1	UN1674	II	Prohibited	Prohibited
Phenylmercuric compounds, n.o.s.	6.1	UN2026	I, II	Prohibited	Prohibited
Phenylmercuric compounds, n.o.s.	6.1	UN2026	III	6A	6A
Phenylmercuric hydroxide	6.1	UN1894	II	Prohibited	Prohibited
Phenylmercuric nitrate	6.1	UN1895	II	Prohibited	Prohibited
Phenyltrichlorosilane	8	UN1804	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Phosgene	2.3	UN1076		Prohibited	Prohibited
9-Phosphabicyclononanes *or* Cyclooctadiene phosphines	4.2	UN2940	II	Prohibited	Prohibited
Phosphine	2.3	UN2199		Prohibited	Prohibited
Phosphoric acid solution	8	UN1805	III	8A	8A
Phosphoric acid, solid	8	UN3453	III	8A	8A
Phosphoric acid triethyleneimine, see Tris-(1-aziridinyl)phosphine oxide, solution					
Phosphorus, amorphous	4.1	UN1338	III	Prohibited	Prohibited
Phosphoric anhydride, see Phosphorus pentoxide					
Phosphorous acid	8	UN2834	III	8A	8A
Phosphorus bromide, see Phosphorus tribromide					
Phosphorus chloride, see Phosphorus trichloride					
Phosphorus heptasulfide, *free from yellow or white phosphorus*	4.1	UN1339	II	Prohibited	Prohibited
Phosphorus oxybromide	8	UN1939	II	Prohibited	Prohibited
Phosphorus oxybromide, molten	8	UN2576	II	Prohibited	Prohibited
Phosphorus oxychloride	8	UN1810	II	Prohibited	Prohibited
Phosphorus pentabromide	8	UN2691	II	8A	8A
Phosphorus pentachloride	8	UN1806	II	Prohibited	Prohibited
Phosphorus pentafluoride	2.3	UN2198		Prohibited	Prohibited
Phosphorus pentasulfide, *free from yellow or white phosphorus*	4.3	UN1340	II	Prohibited	4A
Phosphorus pentoxide	8	UN1807	II	8A	8A
Phosphorus sesquisulfide, *free from yellow or white phosphorus*	4.1	UN1341	II	Prohibited	Prohibited
Phosphorus tribromide	8	UN1808	II	Prohibited	Prohibited
Phosphorus trichloride	6.1	UN1809	I	Prohibited	Prohibited
Phosphorus trioxide	8	UN2578	III	8A	8A
Phosphorus trisulfide, *free from yellow or white phosphorus*	4.1	UN1343	II	Prohibited	Prohibited
Phosphorus, white dry *or* Phosphorus, white, under water *or* Phosphorus white, in solution *or* Phosphorus, yellow dry *or* Phosphorus, yellow, under water *or* Phosphorus, yellow, in solution	4.2	UN1381	I	Prohibited	Prohibited
Phosphorus white, molten	4.2	UN2447	I	Prohibited	Prohibited
Phosphorus (white or red) and a chlorate, mixtures of	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Phosphoryl chloride, see Phosphorus oxychloride					

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Phthalic anhydride *with more than* .05 percent maleic anhydride	8	UN2214	III	8A	8A
Picolines	3	UN2313	III	Prohibited	3A
Picric acid, *see* Trinitrophenol, *etc.*					
Picrite, *see* Nitroguanidine, *etc.*					
Picryl chloride, *see* Trinitrochlorobenzene					
Pine oil	3	UN1272	III	Prohibited	3A
Alpha-Pinene	3	UN2368	III	Prohibited	3A
Piperazine	8	UN2579	III	8A	8A
Piperidine	8	UN2401	I	Prohibited	Prohibited
Pivaloyl chloride, see Trimethylacetyl chloride					
Plastic molding compound *in dough, sheet, or extruded rope form evolving flammable vapor*	9	UN3314	III	Prohibited	9C
Plastic solvent, n.o.s., see Flammable liquids, n.o.s.					
Plastics, nitrocellulose-based, self-heating, n.o.s.	4.2	UN2006	III	Prohibited	Prohibited
Poisonous gases, n.o.s., see Compressed *or* Liquified gases, flammable or toxic, n.o.s.					
Polyalkylamines, n.o.s., see Amines, etc.					
Polyamines, flammable, corrosive, n.o.s. see Amines, flammable, corrosive, n.o.s.					
Polyamines, liquid, corrosive, n.o.s. see Amines, liquid, corrosive, n.o.s.					
Polyamines, liquid, corrosive, flammable, n.o.s. see Amines, liquid, corrosive, flammable, n.o.s.					
Polychlorinated biphenyls, liquid	9	UN2315	II	Prohibited	9C
Polychlorinated biphenyls, solid	9	UN3432	II	Prohibited	9C
Polyester resin kit	3	UN3269	n/a	Prohibited	3A
Polyhalogenated biphenyls, liquid *or* Polyhalogenated terphenyls, liquid	9	UN3151	II	Prohibited	9C
Polyhalogenated biphenyls, solid *or* Polyhalogenated terphenyls, solid	9	UN3152	II	Prohibited	9C
Polymeric beads, expandable, *evolving flammable vapor*	9	UN2211	III	Prohibited	9C
Potassium	4.3	UN2257	I	Prohibited	Prohibited
Potassium arsenate	6.1	UN1677	II	Prohibited	Prohibited
Potassium arsenite	6.1	UN1678	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Potassium bisulfite solution, see Bisulfites, *inorganic,* aqueous solutions, n.o.s.					
Potassium borohydride	4.3	UN1870	I	Prohibited	Prohibited
Potassium bromate	5.1	UN1484	II	5A	5A
Potassium carbonyl	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Potassium chlorate	5.1	UN1485	II	5A	5A
Potassium chlorate mixed with mineral oil, see Explosive, blasting, type C					
Potassium chlorate, aqueous solution	5.1	UN2427	II, III	5A	5A
Potassium cuprocyanide	6.1	UN1679	II	Prohibited	Prohibited
Potassium cyanide, solid	6.1	UN1680	I	Prohibited	Prohibited
Potassium cyanide solution	6.1	UN3413	I	Prohibited	Prohibited
Potassium dichloro isocyanurate or Potassium dichloro-s-triazinetrione, see Dichloroisocyanuric acid, dry or Dichloroisocyanuric acid salts *etc.*					
Potassium dithionite *or* Potassium hydrosulfite	4.2	UN1929	II	Prohibited	Prohibited
Potassium fluoride, solid	6.1	UN1812	III	6A	6A
Potassium fluoride solution	6.1	UN3422	III	6A	6A
Potassium fluoroacetate	6.1	UN2628	I	Prohibited	Prohibited
Potassium fluorosilicate	6.1	UN2655	III	6A	6A
Potassium hydrate, see Potassium hydroxide, solid					
Potassium hydrogen fluoride solution, see Corrosive liquid, n.o.s.					
Potassium hydrogen fluoride, see Potassium hydrogen difluoride					
Potassium hydrogen sulfate	8	UN2509	II	8A	8A
Potassium hydrogendifluoride, *solid*	8	UN1811	II	8A	8A
Potassium hydrogendifluoride, *solution*	8	UN3421	II	8A	8A
Potassium hydrosulfite, *see* Potassium dithionite					
Potassium hydroxide, liquid, see Potassium hydroxide solution					
Potassium hydroxide, solid	8	UN1813	II	8A	8A
Potassium hydroxide, solution	8	UN1814	II, III	8A	8A
Potassium hypochlorite, solution, see Hypochlorite solutions					
Potassium, metal alloys, liquid	4.3	UN1420	I	Prohibited	4A
Potassium, metal alloys, solid	4.3	UN3403	I	Prohibited	Prohibited
Potassium metavanadate	6.1	UN2864	II	Prohibited	Prohibited
Potassium monoxide	8	UN2033	II	8A	8A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Potassium nitrate	5.1	UN1486	III	5A	5A
Potassium nitrate and sodium nitrite mixtures	5.1	UN1487	II	5A	5A
Potassium nitrite	5.1	UN1488	II	5A	5A
Potassium perchlorate	5.1	UN1489	II	5A	5A
Potassium permanganate	5.1	UN1490	II	5A	5A
Potassium peroxide	5.1	UN1491	I	Prohibited	Prohibited
Potassium persulfate	5.1	UN1492	III	5A	5A
Potassium phosphide	4.3	UN2012	I	Prohibited	Prohibited
Potassium selenate, see Selenates *or* Selenites					
Potassium selenite, see Selenates *or* Selenites					
Potassium sodium alloys, liquid	4.3	UN1422	I	Prohibited	Prohibited
Potassium sodium alloys, solid	4.3	UN3404	I	Prohibited	Prohibited
Potassium sulfide, anhydrous *or* Potassium sulfide *with less than 30 percent water of crystallization*	4.2	UN1382	II	Prohibited	Prohibited
Potassium sulfide, hydrated *with not less than 30 percent water of crystallization*	8	UN1847	II	Prohibited	Prohibited
Potassium superoxide	5.1	UN2466	I	Prohibited	Prohibited
Powder cake, wetted *or* Powder paste, wetted *with not less than 25 percent water, by mass*	1.3C	UN0159	II	Prohibited	Prohibited
Powder cake, wetted *or* Powder paste, wetted *with not less than 17 percent alcohol by mass*	1.1C	UN0433	II	Prohibited	Prohibited
Powder paste, *see* Powder cake, etc.					
Powder, smokeless	1.1C	UN0160	II	Prohibited	Prohibited
Powder, smokeless	1.3C	UN0161	II	Prohibited	Prohibited
Powder, smokeless	1.4C	UN0509	n/a	Prohibited	Prohibited
Primers, cap type	1.1B	UN0377	II	Prohibited	Prohibited
Primers, cap type	1.4B	UN0378	II	Prohibited	Prohibited
Primers, cap type	1.4S	UN0044	II	Prohibited	Prohibited
Primers, small arms, see Primers, cap type					
Primers, tubular	1.3G	UN0319	II	Prohibited	Prohibited
Primers, tubular	1.4G	UN0320	II	Prohibited	Prohibited
Primers, tubular	1.4S	UN0376	II	Prohibited	Prohibited
Printing ink, *flammable or* Printing ink related material *(including printing ink thinning or reducing compound), flammable*	3	UN1210	I, II, II	Prohibited	3A
Projectiles, illuminating, see Ammunition, illuminating, *etc.*					
Projectiles, *inert with tracer*	1.3G	UN0424	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Projectiles, *inert with tracer*	1.4G	UN0425	II	Prohibited	Prohibited
Projectiles, *inert with tracer*	1.4S	UN0345	II	Prohibited	Prohibited
Projectiles, *with burster or expelling charge*	1.2D	UN0346	II	Prohibited	Prohibited
Projectiles, *with burster or expelling charge*	1.2F	UN0426	II	Prohibited	Prohibited
Projectiles, *with burster or expelling charge*	1.2G	UN0434	II	Prohibited	Prohibited
Projectiles, *with burster or expelling charge*	1.4D	UN0347	II	Prohibited	Prohibited
Projectiles, *with burster or expelling charge*	1.4F	UN0427	II	Prohibited	Prohibited
Projectiles, *with burster or expelling charge*	1.4G	UN0435	II	Prohibited	Prohibited
Projectiles, *with bursting charge*	1.1D	UN0168	II	Prohibited	Prohibited
Projectiles, *with bursting charge*	1.1F	UN0167	II	Prohibited	Prohibited
Projectiles, *with bursting charge*	1.2D	UN0169	II	Prohibited	Prohibited
Projectiles, *with bursting charge*	1.2F	UN0324	II	Prohibited	Prohibited
Projectiles, *with bursting charge*	1.4D	UN0344	II	Prohibited	Prohibited
Propadiene mixed with acetylene, see Methyl acetylene and propadiene mixtures, stabilized					
Propadiene, stabilized	2.1	UN2200	n/a	Prohibited	Prohibited
Propane *see also* Petroleum gases, liquified	2.1	UN1978	n/a	Prohibited	2A
Propanethiols	3	UN2402	II	Prohibited	3A
n-Propanol *or* Propyl alcohol, normal	3	UN1274	II, III	Prohibited	3A
Propellant, liquid	1.1C	UN0497	II	Prohibited	Prohibited
Propellant, liquid	1.3C	UN0495	II	Prohibited	Prohibited
Propellant, solid	1.1C	UN0498	II	Prohibited	Prohibited
Propellant, solid	1.3C	UN0499	II	Prohibited	Prohibited
Propellant, solid	1.4C	UN0501	n/a	Prohibited	Prohibited
Propionaldehyde	3	UN1275	II	Prohibited	3A
Propionic acid *with not less than 90 percent acid by mass*	8	UN3463	II	Prohibited	8A
Propionic acid *with not less than* 10 percent and less than 90 percent acid by mass	8	UN1848	III	8A	8A
Propionic anhydride	8	UN2496	III	8A	8A
Propionitrile	3	UN2404	II	Prohibited	Prohibited
Propionyl chloride	3	UN1815	II	Prohibited	Prohibited
n-Propyl acetate	3	UN1276	II	Prohibited	3A
Propyl alcohol, *see* Propanol					
n-Propyl benzene	3	UN2364	III	Prohibited	3A
Propyl chloride see 1-Chloropropane					
n-Propyl chloroformate	6.1	UN2740	I	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Propyl formates	3	UN1281	II	Prohibited	3A
n-Propyl isocyanate	6.1	UN2482	I		
Propyl mercaptan, see Propanethiols					
n-Propyl nitrate	3	UN1865	II	Prohibited	3A
Propylamine	3	UN1277	II	Prohibited	Prohibited
Propylene *see also* Petroleum gases, liquified	2.1	UN1077	n/a	Prohibited	2A
Propylene chlorohydrin	6.1	UN2611	II	Prohibited	Prohibited
Propylene oxide	3	UN1280	I	Prohibited	Prohibited
Propylene tetramer	3	UN2850	III	Prohibited	3A
1,2-Propylenediamine	8	UN2258	II	Prohibited	Prohibited
Propyleneimine, stabilized	3	UN1921	I	Prohibited	Prohibited
Propyltrichlorosilane	8	UN1816	II	Prohibited	Prohibited
Prussic acid, see Hydrogen cyanide etc.					
Pyrethroid pesticide, liquid, flammable, toxic, *flashpoint less than 23° C*	3	UN3350	I, II	Prohibited	Prohibited
Pyrethroid pesticide, liquid, flammable, toxic, *flashpoint less than 23° C*	6.1	UN3351	I	Prohibited	Prohibited
Pyrethroid pesticide, liquid, flammable, toxic, *flashpoint less than 23° C*	6.1	UN3351	II, III	6A	6A
Pyrethroid pesticide, liquid, toxic	6.1	UN3352	I	Prohibited	Prohibited
Pyrethroid pesticide, liquid, toxic	6.1	UN3352	II, III	6A	6A
Pyrethroid pesticide, solid, toxic	6.1	UN3349	I	Prohibited	Prohibited
Pyrethroid pesticide, solid, toxic	6.1	UN3349	II, III	6A	6A
Pyridine	3	UN1282	II	Prohibited	Prohibited
Pyridine perchlorate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Pyrophoric liquid, inorganic, n.o.s.	4.2	UN3194	I	Prohibited	Prohibited
Pyrophoric liquids, organic, n.o.s.	4.2	UN2845	I	Prohibited	Prohibited
Pyrophoric metals, n.o.s. *or* Pyrophoric alloys, n.o.s.	4.2	UN1383	I	Prohibited	Prohibited
Pyrophoric solid, inorganic, n.o.s.	4.2	UN3200	I	Prohibited	Prohibited
Pyrophoric solids, organic, n.o.s.	4.2	UN2846	I	Prohibited	Prohibited
Pyrosulfuryl chloride	8	UN1817	II	8A	8A
Pyroxylin solution or solvent, see Nitrocellulose					
Pyrrolidine	3	UN1922	II	Prohibited	Prohibited
Q					
Quebrachitol pentanitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Quicklime, see Calcium oxide					
Quinoline	6.1	UN2656	III	6A	6A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
R					
R 12, see Dichlorodifluoromethane					
R 12B1, see Chlorodifluorobromomethane					
R 13, see Chlorotrifluoromethane					
R 13B1, see Bromotrifluoromethane					
R 14, see Tetrafluoromethane					
R 21, see Dichlorofluoromethane					
R 22, see Chlorodifluoromethane					
R 114, see Dichlorotetrafluroethane					
R 115, see Chloropentafluoroethane					
R 116, see Hexafluoroethane					
R 124, see Chlorotetrafluoroethane					
R 133a, see Chlorotrifluoroethane					
R 152a, see Difluoroethane					
R 500, see Dichlorodifluoromethane and difluorethane, *etc.*					
R 502, see Chlorodifluoromethane and chloropentafluoroethane mixture, *etc.*					
R 503, see Chlorotrifluoromethane and trifluoromethane, *etc.*					
Radioactive material, excepted package-articles manufactured from natural uranium *or* depleted uranium *or* natural thorium	7	UN2909	n/a	Prohibited	7A
Radioactive material, excepted package-empty packaging	7	UN2908	n/a	Prohibited	Prohibited
Radioactive material, excepted package-instruments *or* articles	7	UN2911	n/a	Prohibited	7A
Radioactive material, excepted package-limited quantity of material	7	UN2910	n/a	Prohibited	7A
Radioactive material, low specific activity (LSA-I), *non fissile or fissile-excepted.*	7	UN2912	n/a	Prohibited	Prohibited
Radioactive material, low specific activity (LSA-II), *non fissile or fissile-excepted.*	7	UN3321	n/a	Prohibited	Prohibited
Radioactive material, low specific activity (LSA-III), *non fissile or fissile- excepted.*	7	UN3322	n/a	Prohibited	Prohibited
Radioactive material, surface contaminated objects *(SCO-I or* SCO-II) *non fissile or fissile-excepted*	7	UN2913	n/a	Prohibited	Prohibited
Radioactive material, transported under special arrangement, *non fissile or fissile excepted*	7	UN2919	n/a	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Radioactive material, transported under special arrangement, fissile	7	UN3331	n/a	Prohibited	Prohibited
Radioactive material, Type A package, fissile *non-special form*	7	UN3327	n/a	Prohibited	Prohibited
Radioactive material, Type A package, fissile *non-special form, non fissile or fissile-excepted*	7	UN2915	n/a	Prohibited	Prohibited
Radioactive material, Type A package*, non fissile or fissile-excepted*	7	UN3332	n/a	Prohibited	Prohibited
Radioactive material, Type A package, special form, fissile	7	UN3333	n/a	Prohibited	Prohibited
Radioactive material, Type B(M) package, fissile	7	UN3329	n/a	Prohibited	Prohibited
Radioactive material, Type B(M) package non fissile or fissile-excepted	7	UN2917	n/a	Prohibited	Prohibited
Radioactive material, Type B(U) package, fissile	7	UN3328	n/a	Prohibited	Prohibited
Radioactive material, Type B(U) package *non fissile or fissile-excepted*	7	UN2916	n/a	Prohibited	Prohibited
Radioactive material, uranium hexafluoride *non fissile or fissile-excepted*	7	UN2978	n/a	Prohibited	Prohibited
Radioactive material, uranium hexafluoride fissile	7	UN2977	n/a	Prohibited	Prohibited
Rags, oily	4.2	UN1856	III	Prohibited	Prohibited
Railway torpedo, see Signals, railway track, explosive					
RC318, see Octafluorocyclobutane					
RDX and cyclotetramethylenetetranitramine, wetted *or* desensitized *see* RDX and HMX mixtures, wetted or desensitized					
RDX and HMX mixtures, wetted *with not less than 15 percent water by mass or* RDX and HMX mixtures, desensitized *with not less than 10 percent phlegmatizer by mass*	1.1D	UN0391	II	Prohibited	Prohibited
RDX and Octogen mixtures, wetted *or* desensitized *see* RDX and HMX mixtures, wetted *or* desensitized, *etc.*					
RDX, see Cyclotrimethylene trinitramine, *etc.*					

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Receptacles, small, containing gas (gas cartridges) *flammable, without release device, not refillable and not exceeding 1 L capacity*	2.1	UN2037	n/a	Prohibited	2A
Receptacles, small, containing gas or gas cartridges (*nonflammable) without release device, not refillable and not exceeding 1 L capacity*	2.2	UN2037	n/a	2B	2B
Receptacles, small, containing gas or gas cartridges (*oxidizing) without release device, not refillable and not exceeding 1 L capacity*	2.2	UN2037	n/a	Prohibited	2B
Red phosphorus, see Phosphorus, amorphous					
Refrigerant gas R 404A	2.2	UN3337	n/a	2B	2B
Refrigerant gas R 407A	2.2	UN3338	n/a	2B	2B
Refrigerant gas R 407B	2.2	UN3339	n/a	2B	2B
Refrigerant gas R 407C	2.2	UN3340	n/a	2B	2B
Refrigerant gases, n.o.s.	2.2	UN1078	n/a	2B	2B
Refrigerant gases, n.o.s., *or* Dispersant gases, n.o.s.	2.1	NA1954	n/a	Prohibited	2A
Refrigerating machines, *containing flammable, non-toxic, liquified gas*	2.1	UN3358	n/a	Prohibited	2A
Refrigerating machines, *containing non-flammable, non-toxic, or ammonia solution (UN2672)*	2.2	UN2857	n/a	2B	2B
Regulated medical waste (*sharps*), n.o.s. *or* Clinical waste, unspecified, n.o.s. *or* (BIO) Medical waste, n.o.s. *or* Biomedical waste, n.o.s. *or* Medical waste, n.o.s.	6.2	UN3291	II	Prohibited	6D
Regulated medical waste (*nonsharps*), n.o.s. *or* Clinical waste, unspecified, n.o.s. *or* (BIO) Medical waste, n.o.s. *or* Biomedical waste, n.o.s. *or* Medical waste, n.o.s.	6.2	UN3291	II	Prohibited	6E
Release devices, explosive	1.4S	UN0173	II	Prohibited	Prohibited
Resin solution, *flammable*	3	UN1866	I, II, III	Prohibited	3A
Resorcinol	6.1	UN2876	III	6A	6A
Rifle grenade, see Grenades, *hand or rifle, etc.*					
Rifle powder, see Powder, smokeless *(UN0160)*					
Rivets, explosive	1.4S	UN0174	II	Prohibited	Prohibited
Road asphalt or tar liquid, see Tars, liquid *etc.*					
Rocket motors	1.3C	UN0186	II	Prohibited	Prohibited
Rocket motors	1.1C	UN0280	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Rocket motors	1.2C	UN0281	II	Prohibited	Prohibited
Rocket motors, liquid fueled	1.2J	UN0395	II	Prohibited	Prohibited
Rocket motors, liquid fueled	1.3J	UN0396	II	Prohibited	Prohibited
Rocket motors with hypergolic liquids *with or without an expelling charge*	1.3L	UN0250	II	Prohibited	Prohibited
Rocket motors with hypergolic liquids *with or without an expelling charge*	1.2L	UN0322	II	Prohibited	Prohibited
Rockets, line-throwing	1.2G	UN0238	II	Prohibited	Prohibited
Rockets, line-throwing	1.3G	UN0240	II	Prohibited	Prohibited
Rockets, line-throwing	1.4G	UN0453	II	Prohibited	Prohibited
Rockets, liquid fueled *with bursting charge*	1.1J	UN0397	II	Prohibited	Prohibited
Rockets, liquid fueled *with bursting charge*	1.2J	UN0398	II	Prohibited	Prohibited
Rockets, *with bursting charge*	1.1E	UN0181	II	Prohibited	Prohibited
Rockets, *with bursting charge*	1.1F	UN0180	II	Prohibited	Prohibited
Rockets, *with bursting charge*	1.2E	UN0182	II	Prohibited	Prohibited
Rockets, *with bursting charge*	1.2F	UN0295	II	Prohibited	Prohibited
Rockets, *with expelling charge*	1.2C	UN0436	II	Prohibited	Prohibited
Rockets, *with expelling charge*	1.3C	UN0437	II	Prohibited	Prohibited
Rockets, *with expelling charge*	1.4C	UN0438	II	Prohibited	Prohibited
Rockets, *with inert head*	1.3C	UN0183	II	Prohibited	Prohibited
Rockets, *with inert head*	1.2C	UN0502	n/a	Prohibited	Prohibited
Rosin oil	3	UN1286	II, III	Prohibited	3A
Rubber solution	3	UN1287	II, III	Prohibited	3A
Rubber scrap or shoddy, powdered or granulated, not exceeding 840 microns and rubber contend exceeding 45 percent	4.1	UN1345	II	Prohibited	Prohibited
Rubidium	4.3	UN1423	I	Prohibited	Prohibited
Rubidium hydroxide	8	UN2678	II	8A	8A
Rubidium hydroxide solution	8	UN2677	II, III	8A	8A
S					
Safety fuse, see Fuse, safety					
Samples, explosive, *other than initiating explosives*		UN0190	II	Prohibited	Prohibited
Sand acid, see Fluorosilicic acid					
Seed cake *with more than 1.5 percent oil and not more than 11 percent moisture*	4.2	UN1386	III	Prohibited	Prohibited
Seed cake *with not more than 1.5 percent oil and not more than 11 percent moisture*	4.2	UN2217	III	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Seed cake, *containing vegetable oil solvent extractions and expelled seeds, with not more than 10 percent of oil and when the amount of moisture is higher than 11 percent, with not more than 20 percent of oil and moisture combined*	4.2	UN1386	III	Prohibited	Prohibited
Selenates *or* Selenites	6.1	UN2630	I	Prohibited	Prohibited
Selenic acid	8	UN1905	I	Prohibited	Prohibited
Selenium compound, liquid, n.o.s.	6.1	UN3440	I, II	Prohibited	Prohibited
Selenium compound, liquid, n.o.s.	6.1	UN3440	III	6A	6A
Selenium compound, solid, n.o.s.	6.1	UN3283	I, II	Prohibited	Prohibited
Selenium compound, solid, n.o.s.	6.1	UN3283	III	6A	6A
Selenium disulfide	6.1	UN2657	II	Prohibited	Prohibited
Selenium hexafluoride	2.3	UN2194		Prohibited	Prohibited
Selenium nitride	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Selenium oxychloride	8	UN2879	I	Prohibited	Prohibited
Self-defense spray, aerosol, see Aerosols, *etc.*					
Self-defense spray, non-pressurized	9	NA3334	III	9C	9C
Self-heating liquid, corrosive, inorganic, n.o.s.	4.2	UN3188	II, III	Prohibited	Prohibited
Self-heating liquid, corrosive, organic, n.o.s.	4.2	UN3185	II, III	Prohibited	Prohibited
Self-heating liquid, inorganic, n.o.s.	4.2	UN3186	II, III	Prohibited	Prohibited
Self-heating liquid, organic, n.o.s.	4.2	UN3183	II, III	Prohibited	Prohibited
Self-heating liquid, toxic, inorganic, n.o.s.	4.2	UN3187	II, III	Prohibited	Prohibited
Self-heating liquid, toxic, organic, n.o.s.	4.2	UN3184	II, III	Prohibited	Prohibited
Self-heating solid, corrosive, inorganic, n.o.s.	4.2	UN3192	II, III	Prohibited	Prohibited
Self-heating solid, corrosive, organic, n.o.s.	4.2	UN3126	II, III	Prohibited	Prohibited
Self-heating solid, inorganic, n.o.s.	4.2	UN3190	II, III	Prohibited	Prohibited
Self-heating solid, organic, n.o.s.	4.2	UN3088	II, III	Prohibited	Prohibited
Self-heating solid, oxidizing, n.o.s.	4.2	UN3127	n/a	Prohibited	Prohibited
Self-heating solid, toxic, inorganic, n.o.s.	4.2	UN3191	II, III	Prohibited	Prohibited
Self-heating solid, toxic, organic, n.o.s.	4.2	UN3128	II, III	Prohibited	Prohibited
Self-propelled vehicle, see Engines *etc. or* Batteries *etc.*					
Self-reactive liquid type B	4.1	UN3221	II	Prohibited	Prohibited
Self-reactive liquid type B, temperature controlled	4.1	UN3231	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Self-reactive liquid type C	4.1	UN3223	II	Prohibited	Prohibited
Self-reactive liquid type C, temperature controlled	4.1	UN3233	II	Prohibited	Prohibited
Self-reactive liquid type D	4.1	UN3225	II	Prohibited	Prohibited
Self-reactive liquid type D, temperature controlled	4.1	UN3235	II	Prohibited	Prohibited
Self-reactive liquid type E	4.1	UN3227	II	Prohibited	Prohibited
Self-reactive liquid type E, temperature controlled	4.1	UN3237	II	Prohibited	Prohibited
Self-reactive liquid type F	4.1	UN3229	II	Prohibited	Prohibited
Self-reactive liquid type F, temperature controlled	4.1	UN3239	II	Prohibited	Prohibited
Self-reactive solid type B	4.1	UN3222	II	Prohibited	Prohibited
Self-reactive solid type B, temperature controlled	4.1	UN3232	II	Prohibited	Prohibited
Self-reactive solid type C	4.1	UN3224	II	Prohibited	Prohibited
Self-reactive solid type C, temperature controlled	4.1	UN3234	II	Prohibited	Prohibited
Self-reactive solid type D	4.1	UN3226	II	Prohibited	Prohibited
Self-reactive solid type D, temperature controlled	4.1	UN3236	II	Prohibited	Prohibited
Self-reactive solid type E	4.1	UN3228	II	Prohibited	Prohibited
Self-reactive solid type E, temperature controlled	4.1	UN3238	II	Prohibited	Prohibited
Self-reactive solid type F	4.1	UN3230	II	Prohibited	Prohibited
Self-reactive solid type F, temperature controlled	4.1	UN3240	II	Prohibited	Prohibited
Shale Oil	3	UN1288	I	Prohibited	Prohibited
Shale Oil	3	UN1288	II, III	Prohibited	3A
Shaped charges, see Charges, shaped, *etc.*					
Signal devices, hand	1.4G	UN0191	II	Prohibited	Prohibited
Signal devices, hand	1.4S	UN0373	II	Prohibited	Prohibited
Signals, distress, *ship*	1.1G	UN0194	II	Prohibited	Prohibited
Signals, distress, *ship*	1.3G	UN0195	II	Prohibited	Prohibited
Signals, distress, *ship*	1.4G	UN0505	n/a	Prohibited	Prohibited
Signals, distress, *ship*	1.4S	UN0506	n/a	Prohibited	Prohibited
Signals, highway, see Signal devices, hand					
Signals, railway track, explosive	1.1G	UN0192	II	Prohibited	Prohibited
Signals, railway track, explosive	1.3G	UN0492	II	Prohibited	Prohibited
Signals, railway track, explosive	1.4G	UN0493	II	Prohibited	Prohibited
Signals, railway track, explosive	1.4S	UN0193	II	Prohibited	Prohibited
Signals, ship distress, water-activated, see Contrivances, water-activated, *etc.*					

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Signals, smoke	1.1G	UN0196	II	Prohibited	Prohibited
Signals, smoke	1.2G	UN0313	II	Prohibited	Prohibited
Signals, smoke	1.3G	UN0487	II	Prohibited	Prohibited
Signals, smoke	1.4G	UN0197	II	Prohibited	Prohibited
Signals, smoke	1.4S	UN0507	n/a	Prohibited	Prohibited
Silane	2.1	UN2203	n/a	Prohibited	Prohibited
Silicofluoric acid, see Fluorosilicic acid					
Silicon chloride, see Silicon tetrachloride					
Silicon powder, amorphous	4.1	UN1346	III	Prohibited	Prohibited
Silicon tetrachloride	8	UN1818	II	8A	8A
Silicon tetrafluoride, compressed	2.3	UN1859	n/a	Prohibited	Prohibited
Silver acetylide (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Silver arsenite	6.1	UN1683	II	Prohibited	Prohibited
Silver azide (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Silver chlorite (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Silver cyanide	6.1	UN1684	II	Prohibited	Prohibited
Silver fulminate (dry)	Forbidden			Prohibited	Prohibited
Silver nitrate	5.1	UN1493	II	5A	5A
Silver oxalate (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Silver picrate (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Silver picrate, wetted *with not less than 30 percent water, by mass*	4.1	UN1347	I	Prohibited	Prohibited
Sludge, acid	8	UN1906	II	Prohibited	Prohibited
Smokeless powder for small arms (100 pounds or less)	4.1	NA3178	I	Prohibited	Prohibited
Soda lime *with more than 4 percent sodium hydroxide*	8	UN1907	III	8A	8A
Sodium	4.3	UN1428	I	Prohibited	Prohibited
Sodium aluminate, solid	8	UN2812	III	8A	8A
Sodium aluminate, solution	8	UN1819	II, III	8A	8A
Sodium aluminum hydride	4.3	UN2835	II	Prohibited	4A
Sodium ammonium vanadate	6.1	UN2863	II	Prohibited	Prohibited
Sodium arsanilate	6.1	UN2473	III	6A	6A
Sodium arsenate	6.1	UN1685	II	Prohibited	Prohibited
Sodium arsenite, aqueous solutions	6.1	UN1686	II	Prohibited	Prohibited
Sodium arsenite, aqueous solutions	6.1	UN1686	III	6A	6A
Sodium arsenite, solid	6.1	UN2027	II	Prohibited	Prohibited
Sodium azide	6.1	UN1687	II	Prohibited	Prohibited
Sodium bifluoride, see Sodium hydrogendifluoride					
Sodium bisulfite, solution, see Bisulfites, aqueous solutions, n.o.s.					
Sodium borohydride	4.3	UN1426	I	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Sodium borohydride and sodium hydroxide solution, *with not more than 12 percent sodium borohydride and not more than 40 percent sodium hydroxide by mass*	8	UN3320	II, III	Prohibited	Prohibited
Sodium bromate	5.1	UN1494	II	5A	5A
Sodium cacodylate	6.1	UN1688	II	Prohibited	Prohibited
Sodium carbonate peroxyhydrate	5.1	UN3378	II, III	5A	5A
Sodium chlorate	5.1	UN1495	II	5A	5A
Sodium chlorate, aqueous solution	5.1	UN2428	II, III	5A	5A
Sodium chlorate mixed with dinitrotoluene, see Explosive, blasting, type C					
Sodium chlorite	5.1	UN1496	II	Prohibited	Prohibited
Sodium chloroacetate	6.1	UN2659	III	6A	6A
Sodium cuprocyanide, solid	6.1	UN2316	I	Prohibited	Prohibited
Sodium cuprocyanide, solution	6.1	UN2317	I	Prohibited	Prohibited
Sodium cyanide, solid	6.1	UN1689	I	Prohibited	Prohibited
Sodium cyanide, solution	6.1	UN3414	I, II	Prohibited	Prohibited
Sodium cyanide, solution	6.1	UN3414	III	Prohibited	6A
Sodium dichloroisocyanurate or Sodium dichloro-s-triazinetrione, see Dichloroisocyanuric acid *etc.*					
Sodium dinitro-o-cresolate, *dry or wetted with less than 15 percent water, by mass*	1.3C	UN0234	II	Prohibited	Prohibited
Sodium dinitro-o-cresolate, *wetted with not less than 10 percent water, by mass*	4.1	UN3369	I	Prohibited	Prohibited
Sodium dinitro-o-cresolate, *wetted with not less than 15 percent water, by mass*	4.1	UN1348	I	Prohibited	Prohibited
Sodium dithionite *or* Sodium hydrosulfite	4.2	UN1384	II	Prohibited	Prohibited
Sodium fluoride, solid	6.1	UN1690	III	6A	6A
Sodium fluoride, solution	6.1	UN3415	III	6A	6A
Sodium fluoroacetate	6.1	UN2629	I	Prohibited	Prohibited
Sodium fluorosilicate	6.1	UN2674	III	6A	6A
Sodium hydrate, see Sodium hydroxide, solid					
Sodium hydride	4.3	UN1427	I	Prohibited	Prohibited
Sodium hydrogendifluoride	8	UN2439	II	8A	8A
Sodium hydrosulfide, *with less than 25 percent water of crystallization*	4.2	UN2318	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Sodium hydrosulfide, *with not less than 25 percent water of crystallization*	8	UN2949	II	Prohibited	Prohibited
Sodium hydrosulfite, *see* Sodium dithionite					
Sodium hydroxide, solid	8	UN1823	II	8A	8A
Sodium hydroxide solution	8	UN1824	II, III	8A	8A
Sodium hypochlorite, solution, see Hypochlorite solutions					
Sodium metal, liquid alloy, see Alkali metal alloys, liquid, n.o.s.					
Sodium methylate	4.2	UN1431	II	Prohibited	Prohibited
Sodium methylate solutions *in alcohol*	3	UN1289	II	Prohibited	Prohibited
Sodium methylate solutions *in alcohol*	3	UN1289	III	Prohibited	3A
Sodium monoxide	8	UN1825	II	8A	8A
Sodium nitrate	5.1	UN1498	III	5A	5A
Sodium nitrate and potassium nitrate mixtures	5.1	UN1499	III	5A	5A
Sodium nitrite	5.1	UN1500	III	5A	5A
Sodium pentachlorophenate	6.1	UN2567	II	Prohibited	Prohibited
Sodium perborate monohydrate	5.1	UN3377	III	5A	5A
Sodium perchlorate	5.1	UN1502	II	5A	5A
Sodium permanganate	5.1	UN1503	II	5A	5A
Sodium peroxide	5.1	UN1504	I	Prohibited	Prohibited
Sodium peroxoborate, anhydrous	5.1	UN3247	II	5A	5A
Sodium persulfate	5.1	UN1505	III	5A	5A
Sodium phosphide	4.3	UN1432	I	Prohibited	4A
Sodium picramate, *dry or wetted with less than 20 percent water, by mass*	1.3C	UN0235	II	Prohibited	Prohibited
Sodium picramate, wetted *with not less than 20 percent water, by mass*	4.1	UN1349	I	Prohibited	Prohibited
Sodium picryl peroxide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Sodium potassium alloys, see Potassium sodium alloys					
Sodium selenate, see Selenates *or* Selenites					
Sodium sulfide, anhydrous *or* Sodium sulfide *with less than 30 percent water of crystallization*	4.2	UN1385	II	Prohibited	Prohibited
Sodium sulfide, hydrated *with not less than 30 percent water*	8	UN1849	II	Prohibited	Prohibited
Sodium superoxide	5.1	UN2547	I	Prohibited	Prohibited
Sodium tetranitride	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Solids containing corrosive liquid, n.o.s.	8	UN3244	II	8A	8A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Solids containing flammable liquid, n.o.s.	4.1	UN3175	II	Prohibited	4A
Solids containing toxic liquid, n.o.s.	6.1	UN3243	II	Prohibited	Prohibited
Sounding devices, explosive	1.1D	UN0374	II	Prohibited	Prohibited
Sounding devices, explosive	1.1F	UN0296	II	Prohibited	Prohibited
Sounding devices, explosive	1.2D	UN0375	II	Prohibited	Prohibited
Sounding devices, explosive	1.2F	UN0204	II	Prohibited	Prohibited
Spirits of salt, see Hydrochloric acid					
Squibs, see Igniters					
Stannic chloride, anhydrous	8	UN1827	II	8A	8A
Stannic chloride, pentahydrate	8	UN2440	III	8A	8A
Stannic phosphide	4.3	UN1433	I	Prohibited	Prohibited
Steel swarf, see Ferrous metal borings, *etc.*					
Stibine	2.3	UN2676	n/a	Prohibited	Prohibited
Storage batteries, wet, see Batteries, wet etc.					
Strontium arsenite	6.1	UN1691	II	Prohibited	Prohibited
Strontium chlorate	5.1	UN1506	II	5A	5A
Strontium nitrate	5.1	UN1507	III	5A	5A
Strontium perchlorate	5.1	UN1508	II	5A	5A
Strontium peroxide	5.1	UN1509	II	5A	5A
Strontium phosphide	4.3	UN2013	I	Prohibited	Prohibited
Strychnine or Strychnine salts	6.1	UN1692	I	Prohibited	Prohibited
Styphnic acid, *see* Trinitroresorcinol, etc.					
Styrene monomer, stabilized	3	UN2055	III	Prohibited	3A
Substances, explosive, n.o.s.	1.1A	UN0473	II	Prohibited	Prohibited
Substances, explosive, n.o.s.	1.1C	UN0474	II	Prohibited	Prohibited
Substances, explosive, n.o.s.	1.1D	UN0475	II	Prohibited	Prohibited
Substances, explosive, n.o.s.	1.1G	UN0476	II	Prohibited	Prohibited
Substances, explosive, n.o.s.	1.1L	UN0357	II	Prohibited	Prohibited
Substances, explosive, n.o.s.	1.2L	UN0358	II	Prohibited	Prohibited
Substances, explosive, n.o.s.	1.3C	UN0477	II	Prohibited	Prohibited
Substances, explosive, n.o.s.	1.3G	UN0478	II	Prohibited	Prohibited
Substances, explosive, n.o.s.	1.3L	UN0359	II	Prohibited	Prohibited
Substances, explosive, n.o.s.	1.4C	UN0479	II	Prohibited	Prohibited
Substances, explosive, n.o.s.	1.4D	UN0480	II	Prohibited	Prohibited
Substances, explosive, n.o.s.	1.4G	UN0485	II	Prohibited	Prohibited
Substances, explosive, n.o.s.	1.4S	UN0481	II	Prohibited	Prohibited
Substances, explosive, very insensitive, n.o.s., *or* Substances, EVI, n.o.s.	1.5D	UN0482	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Substituted nitrophenol pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*	3	UN2780	I, II	Prohibited	Prohibited
Substituted nitrophenol pesticides, liquid, toxic	6.1	UN3014	I, II	Prohibited	Prohibited
Substituted nitrophenol pesticides, liquid, toxic	6.1	UN3014	III	6A	6A
Substituted nitrophenol pesticides, liquid, toxic flammable *flashpoint not less than 23° C*	6.1	UN3013	I, II	Prohibited	Prohibited
Substituted nitrophenol pesticides, liquid, toxic flammable *flashpoint not less than 23° C*	6.1	UN3013	III	6A	6A
Substituted nitrophenol pesticides, solid, toxic	6.1	UN2779	I, II	Prohibited	Prohibited
Substituted nitrophenol pesticides, solid, toxic	6.1	UN2779	III	6A	6A
Sucrose octanitrate (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Sulfamic acid	8	UN2967	III	8A	8A
Sulfur	9	NA1350	III	Prohibited	Prohibited
Sulfur	4.1	UN1350	III	Prohibited	Prohibited
Sulfur and chlorate, loose mixtures of	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Sulfur chlorides	8	UN1828	I	Prohibited	Prohibited
Sulfur dichloride, see Sulfur chlorides					
Sulfur dioxide	2.3	UN1079	n/a	Prohibited	Prohibited
Sulfur dioxide solution, see Sulfurous acid					
Sulfur hexafluoride	2.2	UN1080	n/a	2B	2B
Sulfur, molten	9	NA2448	III	Prohibited	Prohibited
Sulfur, molten	4.1	UN2448	III	Prohibited	Prohibited
Sulfur tetrafluoride	2.3	UN2418	n/a	Prohibited	Prohibited
Sulfur trioxide, stabilized	8	UN1829	I	Prohibited	Prohibited
Sulfuretted hydrogen, see Hydrogen sulfide					
Sulfuric acid *with more than 51 percent acid*	8	UN1830	II	Prohibited	Prohibited
Sulfuric acid *with not more than 51 percent acid*	8	UN2796	II	8A	8A
Sulfuric acid, *fuming with 30 percent or more free sulfur trioxide*	8	UN1831	I	Prohibited	Prohibited
Sulfuric acid, fuming *with less than 30 percent free sulfur trioxide*	8	UN1831	I	Prohibited	Prohibited
Sulfuric acid, spent	8	UN1832	II	Prohibited	Prohibited
Sulfuric and hydrofluoric acid mixtures, *see* Hydrofluoric and sulfuric acid mixtures					

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Sulfuric anhydride, see Sulfur trioxide, inhibited					
Sulfurous acid	8	UN1833	II	8A	8A
Sulfuryl chloride	8	UN1834	I	Prohibited	Prohibited
Sulfuryl fluoride	2.3	UN2191	n/a	Prohibited	Prohibited
T					
Tars, liquid *including road oils and cutback, bitumens*	3	UN1999	II, III	Prohibited	3A
Tear gas candles	6.1	UN1700	II	Prohibited	Prohibited
Tear gas cartridges, see Ammunition, tear-producing, *etc.*					
Tear gas devices *with more than 2 percent tear gas substances, by mass*	6.1	NA1693	I, II	Prohibited	Prohibited
Tear gas devices with not more than 2 percent tear gas substances, by mass, see Aerosols, *etc.*					
Tear gas grenades, see Tear gas candles					
Tear gas substances, liquid, n.o.s.	6.1	UN1693	I, II	Prohibited	Prohibited
Tear gas substances, solid, n.o.s.	6.1	UN3448	I, II	Prohibited	Prohibited
Tellurium compound, n.o.s.	6.1	UN3284	I, II	Prohibited	Prohibited
Tellurium compound, n.o.s.	6.1	UN3284	III	6A	6A
Tellurium hexafluoride	2.3	UN2195	n/a	Prohibited	Prohibited
Terpene hydrocarbons, n.o.s.	3	UN2319	III	Prohibited	3A
Terpinolene	3	UN2541	III	Prohibited	3A
Tetraazido benzene quinone	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Tetrabromoethane	6.1	UN2504	III	6A	6A
1,1,2,2-Tetrachloroethane	6.1	UN1702	II	Prohibited	Prohibited
Tetrachloroethylene	6.1	UN1897	III	6A	6A
Tetraethyl dithiopyrophosphate	6.1	UN1704	II	Prohibited	Prohibited
Tetraethyl silicate	3	UN1292	III	Prohibited	3A
Tetraethylammonium perchlorate (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Tetraethylenepentamine	8	UN2320	III	8A	8A
1,1,1,2-Tetrafluoroethane *or* Refrigerant gas R 134a	2.2	UN3159	n/a	2B	2B
Tetrafluoroethylene, stabilized	2.1	UN1081	n/a	Prohibited	2A
Tetrafluoromethane *or* Refrigerant gas R 14	2.2	UN1982	n/a	Prohibited	Prohibited
1,2,3,6-Tetrahydrobenzaldehyde	3	UN2498	III	Prohibited	3A
Tetrahydrofuran	3	UN2056	II	Prohibited	Prohibited
Tetrahydrofurfurylamine	3	UN2943	III	Prohibited	3A
Tetrahydrophthalic anhydrides *with more than 0.05 percent of maleic anhydride*	8	UN2698	III	8A	8A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
1,2,3,6-Tetrahydropyridine	3	UN2410	II	Prohibited	3A
Tetrahydrothiophene	3	UN2412	II	Prohibited	3A
Tetramethylammonium hydroxide, solid	8	UN3423	II	8A	8A
Tetramethylammonium hydroxide, solution	8	UN1835	II	8A	8A
Tetramethylene diperoxide dicarbamide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Tetramethylsilane	3	UN2749	I	Prohibited	Prohibited
Tetranitro diglycerin	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Tetranitroaniline	1.1D	UN0207	II	Prohibited	Prohibited
Tetranitromethane	5.1	UN1510	I	Prohibited	Prohibited
2,3,4,6-Tetranitrophenol	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
2,3,4,6-Tetranitrophenyl methyl nitramine	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
2,3,4,6-Tetranitrophenylnitramine	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Tetranitroresorcinol (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
2,3,5,6-Tetranitroso nitrobenzene (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
2,3,5,6-Tetranitroso-1,4-dinitrobenzene	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Tetrapropylorthotitanate	3	UN2413	III	Prohibited	3A
Tetrazene, *see* Guanyl nitrosaminoguanyltetrazene					
Tetrazine (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Tetrazol-1-acetic acid	1.4C	UN0407	II	Prohibited	Prohibited
1H-Tetrazole	1.1D	UN0504	n/a	Prohibited	Prohibited
Tetrazolyl azide (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Tetryl, *see* Trinitrophenylmethylnitramine					
Textile waste, wet	4.2	UN1857	III	Prohibited	Prohibited
Thallium chlorate	5.1	UN2573	II	Prohibited	Prohibited
Thallium compounds, n.o.s.	6.1	UN1707	II	Prohibited	Prohibited
Thallium nitrate	6.1	UN2727	II	Prohibited	Prohibited
4-Thiapentanal	6.1	UN2785	III	6A	6A
Thioacetic acid	3	UN2436	II	Prohibited	3A
Thiocarbamate pesticide, liquid, flammable, toxic, *flashpoint less than 23° C*	3	UN2772	I, II	Prohibited	Prohibited
Thiocarbamate pesticide, liquid, toxic	6.1	UN3006	I, II	Prohibited	Prohibited
Thiocarbamate pesticide, liquid, toxic	6.1	UN3006	III	6A	6A
Thiocarbamate pesticides, liquid, flammable, toxic, *flashpoint not less than 23° C*	6.1	UN3005	I, II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Thiocarbamate pesticides, liquid, flammable, toxic, *flashpoint not less than 23° C*	6.1	UN3005	III	6A	6A
Thiocarbamate pesticides, solid, toxic	6.1	UN2771	I, II	Prohibited	Prohibited
Thiocarbamate pesticides, solid, toxic	6.1	UN2771	III	6A	6A
Thiocarbonylchloride, see Thiophosgene					
Thiogylcol	6.1	UN2966	II	Prohibited	Prohibited
Thioglycolic acid	8	UN1940	II	8A	8A
Thiolactic acid	6.1	UN2936	II	Prohibited	Prohibited
Thionyl chloride	8	UN1836	I	Prohibited	Prohibited
Thiophene	3	UN2414	II	Prohibited	3A
Thiophosgene	6.1	UN2474	II	Prohibited	Prohibited
Thiophosphoryl chloride	8	UN1837	II	Prohibited	Prohibited
Thiourea dioxide	4.2	UN3341	II, III	Prohibited	Prohibited
Tin chloride, fuming, see Stannic chloride, anhydrous					
Tin perchloride or Tin tetrachloride, see Stannic chloride, anhydrous					
Tinctures, medicinal	3	UN1293	II, III	Prohibited	3A
Tinning flux, see Zinc chloride					
Tires and tire assemblies, *see* Air compressed *or* Nitrogen, compressed					
Titanium disulphide	4.2	UN3174	III	Prohibited	Prohibited
Titanium hydride	4.1	UN1871	II	Prohibited	Prohibited
Titanium powder, dry	4.2	UN2546	I, II, III	Prohibited	Prohibited
Titanium powder, wetted *with not less than 25 percent water (a visible excess of water must be present) (a) mechanically produced, particle size less than 53 microns; (b) chemically produced, particle size less than 840 microns*	4.1	UN1352	II	Prohibited	Prohibited
Titanium sponge granules *or* Titanium sponge powders	4.1	UN2878	III	Prohibited	Prohibited
Titanium tetrachloride	8	UN1838	II	Prohibited	Prohibited
Titanium trichloride mixtures	8	UN2869	II, III	8A	8A
Titanium trichloride, pryophoric *or* Titanium trichloride mixtures, pyrophoric	4.2	UN2441	I	Prohibited	Prohibited
TNT mixed with aluminum, see Tritonal					
TNT, *see* Trinitrotoluene, *etc.*					
Toluene	3	UN1294	II	Prohibited	3A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Toluene diisocyanate	6.1	UN2078	II	Prohibited	Prohibited
Toluene sulfonic acid, see Alkyl, *or* Aryl sulfonic acid, *etc.*					
Toluidines *liquid*	6.1	UN1708	II	Prohibited	Prohibited
Toluidines *solid*	6.1	UN3451	II	Prohibited	Prohibited
2,4-Toluylenediamine, solid *or* 2,4-Toluenediamine, solid	6.1	UN1709	III	6A	6A
2,4-Toluylenediamine, solution *or* 2,4-Toluenediamine, solution	6.1	UN3418	III	6A	6A
Torpedoes *with bursting charge*	1.1D	UN0451	II	Prohibited	Prohibited
Torpedoes *with bursting charge*	1.1E	UN0329	II	Prohibited	Prohibited
Torpedoes *with bursting charge*	1.1F	UN0330	II	Prohibited	Prohibited
Torpedoes, liquid fueled, *with inert head*	1.3J	UN0450	II	Prohibited	Prohibited
Torpedoes, liquid fueled, *with or without bursting charge*	1.1J	UN0449	II	Prohibited	Prohibited
Toxic by inhalation liquid, flammable, corrosive, n.o.s. *with an LC50 lower than or equal to 200 ml/ m3 and saturated vapor concentration greater than or equal to 500 LC50*	6.1	UN3488	I	Prohibited	Prohibited
Toxic by inhalation liquid, flammable, corrosive, n.o.s. *with an LC50 lower than or equal to 1000 ml/ m3 and saturated vapor concentration greater than or equal to 10 LC50*	6.1	UN3489	I	Prohibited	Prohibited
Toxic by inhalation liquid, n.o.s. *with an LC50 lower than or equal to 200 ml/m3 and saturated vapor concentration greater than or equal to 500 LC50*	6.1	UN3381	I	Prohibited	Prohibited
Toxic by inhalation liquid, n.o.s. *with an LC50 lower than or equal to 1000 ml/m3 and saturated vapor concentration greater than or equal to 10 LC50*	6.1	UN3382	I	Prohibited	Prohibited
Toxic by inhalation liquid, flammable, n.o.s. *with an LC50 lower than or equal to 200 ml/m3 and saturated vapor concentration greater than or equal to 500 LC50*	6.1	UN3383	I	Prohibited	Prohibited
Toxic by inhalation liquid, flammable, n.o.s. *with an LC50 lower than or equal to 1000 ml/m3 and saturated vapor concentration greater than or equal to 10 LC50*	6.1	UN3384	I	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Toxic by inhalation liquid, water-reactive, flammable, n.o.s. *with an LC50 lower than or equal to 200 ml/ m3 and saturated vapor concentration greater than or equal to 500 LC50-*	6.1	UN3490	I	Prohibited	Prohibited
Toxic by inhalation liquid, water-reactive, flammable, n.o.s. *with an LC50 lower than or equal to 1000 ml/ m3 and saturated vapor concentration greater than or equal to 10 LC50-*	6.1	UN3491	I	Prohibited	Prohibited
Toxic by inhalation liquid, water-reactive, n.o.s. *with an LC50 lower than or equal to 200 ml/m3 and saturated vapor concentration greater than or equal to 500 LC50*	6.1	UN3385	I	Prohibited	Prohibited
Toxic by inhalation liquid, water-reactive, n.o.s. *with an LC50 lower than or equal to 1000 ml/m3 and saturated vapor concentration greater than or equal to 10 LC50*	6.1	UN3386	I	Prohibited	Prohibited
Toxic by inhalation liquid, oxidizing, n.o.s. *with an LC50 lower than or equal to 200 ml/m3 and saturated vapor concentration greater than or equal to 500 LC50*	6.1	UN3387	I	Prohibited	Prohibited
Toxic by inhalation liquid, oxidizing, n.o.s. *with an LC50 lower than or equal to 1000 ml/m3 and saturated vapor concentration greater than or equal to 10 LC50*	6.1	UN3388	I	Prohibited	Prohibited
Toxic by inhalation liquid, corrosive, n.o.s. *with an LC50 lower than or equal to 200 ml/m3 and saturated vapor concentration greater than or equal to 500 LC50*	6.1	UN3389	I	Prohibited	Prohibited
Toxic by inhalation liquid, corrosive, n.o.s. *with an LC50 lower than or equal to 1000 ml/m3 and saturated vapor concentration greater than or equal to 10 LC50*	6.1	UN3390	I	Prohibited	Prohibited
Toxic liquid, corrosive, inorganic, n.o.s.	6.1	UN3289	I, II	Prohibited	Prohibited
Toxic liquid, inorganic, n.o.s.	6.1	UN3287	I, II	Prohibited	Prohibited
Toxic liquid, inorganic, n.o.s.	6.1	UN3287	III	6A	6A
Toxic liquids, corrosive, organic, n.o.s.	6.1	UN2927	I, II	Prohibited	Prohibited
Toxic liquids, flammable, organic, n.o.s.	6.1	UN2929	I, II	Prohibited	Prohibited
Toxic, liquids, organic, n.o.s.	6.1	UN2810	I, II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Toxic, liquids, organic, n.o.s.	6.1	UN2810	III	6A	6A
Toxic liquids, oxidizing, n.o.s.	6.1	UN3122	I, II	Prohibited	Prohibited
Toxic liquids, water-reactive, n.o.s.	6.1	UN3123	I, II	Prohibited	Prohibited
Toxic solid, corrosive, inorganic, n.o.s.	6.1	UN3290	I, II	Prohibited	Prohibited
Toxic solid, inorganic, n.o.s.	6.1	UN3288	I, II	Prohibited	Prohibited
Toxic solid, inorganic, n.o.s.	6.1	UN3288	III	6A	6A
Toxic solids, corrosive, organic, n.o.s.	6.1	UN2928	I, II	Prohibited	Prohibited
Toxic solids, flammable, organic, n.o.s.	6.1	UN2930	I, II	Prohibited	Prohibited
Toxic solids, organic, n.o.s.	6.1	UN2811	I, II	Prohibited	Prohibited
Toxic solids, organic, n.o.s	6.1	UN2811	III	6A	6A
Toxic solids, oxidizing, n.o.s.	6.1	UN3086	I, II	Prohibited	Prohibited
Toxic solids, self-heating, n.o.s.	6.1	UN3124	I, II	Prohibited	Prohibited
Toxic solids, water-reactive, n.o.s.	6.1	UN3125	I, II	Prohibited	Prohibited
Toxins, extracted from living sources, liquid, n.o.s.	6.1	UN3172	I, II	Prohibited	Prohibited
Toxins, extracted from living sources, liquid, n.o.s.	6.1	UN3172	III	6A	6A
Toxins, extracted from living sources, solid, n.o.s.	6.1	UN3462	I, II	Prohibited	Prohibited
Toxins, extracted from living sources, solid, n.o.s.	6.1	UN3462	III	6A	6A
Toy caps	1.4S	NA0337	II	Prohibited	Prohibited
Tracers for ammunition	1.3G	UN0212	II	Prohibited	Prohibited
Tracers for ammunition	1.4G	UN0306	II	Prohibited	Prohibited
Tractors, see Vehicle, *etc.*					
Tri-(b-nitroxyethyl) ammonium nitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Triallyl borate	6.1	UN2609	III	6A	6A
Triallylamine	3	UN2610	III	Prohibited	Prohibited
Triazine pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*	3	UN2764	I, II	Prohibited	Prohibited
Triazine pesticides, liquid, toxic	6.1	UN2998	I, II	Prohibited	Prohibited
Triazine pesticides, liquid, toxic	6.1	UN2998	III	6A	6A
Triazine pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN2997	I, II	Prohibited	Prohibited
Triazine pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*	6.1	UN2997	III	6A	6A
Triazine pesticides, solid, toxic	6.1	UN2763	I, II	Prohibited	Prohibited
Triazine pesticides, solid, toxic	6.1	UN2763	III	6A	6A
Tributylamine	6.1	UN2542	II	Prohibited	Prohibited
Tributylphosphane	4.2	UN3254	I	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Trichloro-s-triazinetrione dry, with more than 39 percent available chlorine, see Trichloroisocyanuric acid, dry					
Trichloroacetic acid	8	UN1839	II	8A	8A
Trichloroacetic acid, solution	8	UN2564	II, III	8A	8A
Trichloroacetyl chloride	8	UN2442	II	Prohibited	Prohibited
Trichlorbenzenes, liquid	6.1	UN2321	III	6A	6A
Trichlorobutene	6.1	UN2322	II	Prohibited	Prohibited
1,1,1-Trichloroethane	6.1	UN2831	III	6A	6A
Trichloroethylene	6.1	UN1710	III	6A	6A
Trichloroisocyanuric acid, dry	5.1	UN2468	II	5A	5A
Trichloromethyl perchlorate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Trichlorosilane	4.3	UN1295	I	Prohibited	Prohibited
Tricresyl phosphate *with more than 3 percent ortho isomer*	6.1	UN2574	II	Prohibited	Prohibited
Triethyl phosphite	3	UN2323	III	Prohibited	3A
Triethylamine	3	UN1296	II	Prohibited	Prohibited
Triethylenetetramine	8	UN2259	II	8A	8A
Trifluoroacetic acid	8	UN2699	I	Prohibited	Prohibited
Trifluoroacetyl chloride	2.3	UN3057	n/a	Prohibited	Prohibited
Trifluorochloroethylene, stabilized	2.3	UN1082	n/a	Prohibited	Prohibited
1,1,1-Trifluoroethane, compressed *or* Refrigerant gas R 143a	2.1	UN2035	n/a	Prohibited	2A
Trifluoromethane *or* Refrigerant gas R 23	2.2	UN1984	n/a	2B	2B
Trifluoromethane, refrigerated liquid	2.2	UN3136	n/a	2B	2B
2-Trifluoromethylaniline	6.1	UN2942	III	6A	6A
3-Trifluoromethylaniline	6.1	UN2948	II	Prohibited	Prohibited
Triformoxime trinitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Triisobutylene	3	UN2324	III	Prohibited	3A
Triisopropyl borate	3	UN2616	II, III	Prohibited	3A
Trimethoxysilane	6.1	NA9269	I	Prohibited	Prohibited
Trimethyl borate	3	UN2416	II	Prohibited	3A
Trimethyl phosphite	3	UN2329	III	Prohibited	3A
1,3,5-Trimethyl-2,4,6-trinitrobenzene	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Trimethylacetyl chloride	6.1	UN2438	I	Prohibited	Prohibited
Trimethylamine, anhydrous	2.1	UN1083	n/a	Prohibited	2A
Trimethylamine, aqueous solutions *with not more than 50 percent trimethylamine by mass*	3	UN1297	I, II	Prohibited	Prohibited
Trimethylamine, aqueous solutions *with not more than 50 percent trimethylamine by mass*	3	UN1297	III	Prohibited	3A
1,3,5-Trimethylbenzene	3	UN2325	III	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Trimethylchlorosilane	3	UN1298	II	Prohibited	Prohibited
Trimethylcyclohexylamine	8	UN2326	III	8A	8A
Trimethylene glycol diperchlorate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Trimethylhexamethylene diisocyanate	6.1	UN2328	III	6A	6A
Trimethylhexamethylenediamines	8	UN2327	III	8A	8A
Trimethylol nitromethane trinitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Trinitro-m-cresol	1.1D	UN0216	II	Prohibited	Prohibited
2,4,6-Trinitro-1,3,5-triazido benzene (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
2,4,6-Trinitro-1,3-diazobenzene	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Trinitroacetic acid	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Trinitroacetonitrile	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Trinitroamine cobalt	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Trinitroaniline *or* Picramide	1.1D	UN0153	II	Prohibited	Prohibited
Trinitroanisole	1.1D	UN0213	II	Prohibited	Prohibited
Trinitrobenzene, *wetted, with not less than 10 percent water, by mass*	4.1	UN3367	I	Prohibited	Prohibited
Trinitrobenzene, *dry or wetted with less than 30 percent water, by mass*	1.1D	UN0214	II	Prohibited	Prohibited
Trinitrobenzenesulfonic acid	1.1D	UN0386	II	Prohibited	Prohibited
Trinitrobenzoic acid, *dry or wetted with less than 30 percent water, by mass*	1.1D	UN0215	II	Prohibited	Prohibited
Trinitrobenzoic acid, wetted *with not less than 10 percent water, by mass*	4.4	UN3368	I	Prohibited	Prohibited
Trinitrobenzoic acid, wetted *with not less than 30 percent water, by mass*	4.1	UN1355	I	Prohibited	Prohibited
Trinitrochlorobenzene *or* Picryl chloride	1.1D	UN0155	II	Prohibited	Prohibited
Trinitrochlorobenzene (picryl chloride), wetted, *with not less than 10 percent water by mass*	4.1	UN3365	I	Prohibited	Prohibited
Trinitroethanol	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Trinitroethylnitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Trinitrofluorenone	1.1D	UN0387	II	Prohibited	Prohibited
Trinitromethane	Forbidden			Prohibited	Prohibited
Trinitronaphthalene	1.1D	UN0217	II	Prohibited	Prohibited
1,3,5-Trinitronaphthalene	Forbidden			Prohibited	Prohibited
Trinitrophenetole	1.1D	UN0218	II	Prohibited	Prohibited
Trinitrophenol (picric acid), wetted *with not less than 10 percent water by mass*	4.1	UN3364	I	Prohibited	Prohibited
Trinitrophenol *or* Picric acid, *dry or wetted with less than 30 percent water, by mass*	1.1D	UN0154	II	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Trinitrophenol, wetted *with not less than 30 percent water, by mass*	4.1	UN1344	I	Prohibited	Prohibited
2,4,6-Trinitrophenyl guanidine (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
2,4,6-Trinitrophenyl nitramine	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
2,4,6-Trinitrophenyl trimethylol methyl nitramine trinitrate (dry)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Trinitrophenylmethylnitramine *or* Tetryl	1.1D	UN0208	II	Prohibited	Prohibited
Trinitroresorcinol *or* Styphnic acid, dry or wetted with less than 20 percent water, or mixture of alcohol and water, by mass	1.1D	UN0219	II	Prohibited	Prohibited
Trinitroresorcinol, wetted *or* Styphnic acid, wetted *with not less than 20 percent water, or mixture of alcohol and water, by mass*	1.1D	UN0394	II	Prohibited	Prohibited
2,4,6-Trinitroso-3-methyl nitraminoanisole	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Trinitrotetramine cobalt nitrate	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Trinitrotoluene *or* TNT, *dry or wetted with less than 30 percent water, by mass*	1.1D	UN0209	II	Prohibited	Prohibited
Trinitrotoluene (TNT) wetted, with not less than 10 percent water by mass	4.1	UN3366	I	Prohibited	Prohibited
Trinitrotoluene and Trinitrobenzene mixtures *or* TNT and trinitrobenzene mixtures *or* TNT and hexanitrostilbene mixtures *or* Trinitrotoluene and hexanitrostilbene mixtures	1.1D	UN0388	II	Prohibited	Prohibited
Trinitrotoluene mixtures containing Trinitrobenzene and Hexanitrostilbene *or* TNT mixtures containing trinitrobenzene and hexanitrostilbene	1.1D	UN0389	II	Prohibited	Prohibited
Trinitrotoluene wetted *with not less than 30 percent water, by mass*	4.1	UN1356	I	Prohibited	Prohibited
Tripropylamine	3	UN2260	III	Prohibited	3A
Tripropylene	3	UN2057	II, III	Prohibited	3A
Tris, bis-bifluoroamino diethoxy propane (TVOPA)	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Tris-(1-aziridinyl)phosphine oxide, solution	6.1	UN2501	II	Prohibited	Prohibited
Tris-(1-aziridinyl)phosphine oxide, solution	6.1	UN2501	III	6A	6A
Tritonal	1.1D	UN0390	II	Prohibited	Prohibited
Tungsten hexafluoride	2.3	UN2196	n/a	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Turpentine	3	UN1299	III	Prohibited	3A
Turpentine substitute	3	UN1300	I	Prohibited	Prohibited
Turpentine substitute	3	UN1300	II, III	Prohibited	3A
U					
Undecane	3	UN2330	III	Prohibited	3A
Urea hydrogen peroxide	5.1	UN1511	III	5A	5A
Urea nitrate, *dry or wetted with less than 20 percent water, by mass*	1.1D	UN0220	II	Prohibited	Prohibited
Urea nitrate, wetted *with not less than 10 percent water, by mass*	4.1	UN3370	I	Prohibited	Prohibited
Urea nitrate, wetted *with not less than 20 percent water, by mass*	4.1	UN1357	I	Prohibited	Prohibited
Urea peroxide, see Urea hydrogen peroxide					
V					
Valeraldehyde	3	UN2058	II	Prohibited	3A
Valeric acid, see Corrosive liquids, n.o.s.					
Valeryl chloride	8	UN2502	II	8A	8A
Vanadium compound, n.o.s.	6.1	UN3285	I, II		
Vanadium compound, n.o.s.	6.1	UN3285	III	6A	6A
Vanadium oxytrichloride	8	UN2443	II	8A	8A
Vanadium pentoxide, *non-fused form*	6.1	UN2862	III	6A	6A
Vanadium tetrachloride	8	UN2444	I	Prohibited	Prohibited
Vanadium trichloride	8	UN2475	III	8A	8A
Vanadyl sulfate	6.1	UN2931	II	Prohibited	Prohibited
Vehicle, flammable gas powered *or* Vehicle, fuel cell, flammable gas powered	9	UN3166	n/a	Prohibited	Prohibited
Vehicle, flammable liquid powered *or* Vehicle, fuel cell, flammable liquid powered	9	UN3166	n/a	Prohibited	Prohibited
Very signal cartridge, see Cartridges, signal					
Vinyl acetate, stabilized	3	UN1301	II	Prohibited	3A
Vinyl bromide, stabilized	2.1	UN1085	n/a	Prohibited	2A
Vinyl butyrate, stabilized	3	UN2838	II	Prohibited	3A
Vinyl chloride, stabilized	2.1	UN1086	n/a	Prohibited	2A
Vinyl chloroacetate	6.1	UN2589	II	Prohibited	Prohibited
Vinyl ethyl ether, stabilized	3	UN1302	I	Prohibited	Prohibited
Vinyl fluoride, stabilized	2.1	UN1860	n/a	Prohibited	2A
Vinyl isobutyl ether, stabilized	3	UN1304	II	Prohibited	3A
Vinyl methyl ether, stabilized	2.1	UN1087	n/a	Prohibited	2A
Vinyl nitrate polymer	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Vinylidene chloride, stabilized	3	UN1303	I	Prohibited	3A

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Vinylpyridines, stabilized	6.1	UN3073	II	Prohibited	Prohibited
Vinyltoluenes, stabilized	3	UN2618	III	Prohibited	3A
Vinyltrichlorosilane, stabilized	3	UN1305	I	Prohibited	Prohibited
W					
Warheads, rocket *with burster or expelling charge*	1.4D	UN0370	II	Prohibited	Prohibited
Warheads, rocket *with burster or expelling charge*	1.4F	UN0371	II	Prohibited	Prohibited
Warheads, rocket *with bursting charge*	1.1D	UN0286	II	Prohibited	Prohibited
Warheads, rocket *with bursting charge*	1.1F	UN0369	II	Prohibited	Prohibited
Warheads, rocket *with bursting charge*	1.2D	UN0287	II	Prohibited	Prohibited
Warheads, torpedo *with bursting charge*	1.1D	UN0221	II	Prohibited	Prohibited
Water-reactive liquid, corrosive, n.o.s.	4.3	UN3129	I	Prohibited	Prohibited
Water-reactive liquid, corrosive, n.o.s.	4.3	UN3129	II, III	Prohibited	4A
Water-reactive liquid, n.o.s.	4.3	UN3148	I, II, III	Prohibited	Prohibited
Water-reactive liquid, toxic, n.o.s.	4.3	UN3130	I, II, III	Prohibited	Prohibited
Water-reactive solid, corrosive, n.o.s.	4.3	UN3131	I	Prohibited	Prohibited
Water-reactive solid, corrosive, n.o.s.	4.3	UN3131	II, III	Prohibited	4A
Water-reactive solid, flammable, n.o.s.	4.3	UN3132	I	Prohibited	Prohibited
Water-reactive solid, flammable, n.o.s.	4.3	UN3132	II, III	Prohibited	4A
Water-reactive solid, n.o.s.	4.3	UN2813	I	Prohibited	Prohibited
Water-reactive solid, n.o.s.	4.3	UN2813	II, III	Prohibited	4A
Water-reactive solid, oxidizing, n.o.s.	4.3	UN3133	II, III	Prohibited	Prohibited
Water-reactive solid, self-heating, n.o.s.	4.3	UN3135	I, II, III	Prohibited	Prohibited
Water-reactive solid, toxic, n.o.s.	4.3	UN3134	I	Prohibited	Prohibited
Water-reactive solid, toxic, n.o.s.	4.3	UN3134	II, III	Prohibited	4A
Wheel chair, electric, see Battery powered vehicle *or* Battery powered equipment					
White acid, see Hydrofluoric acid					
White asbestos *(chrysotile, actinolite, anthophyllite, tremolite)*	9	UN2590	III	Prohibited	9C
Wood preservatives, liquid	3	UN1306	II, III	Prohibited	3A
Wool waste, wet	4.2	UN1387	III	Prohibited	Prohibited
X					
Xanthates	4.2	UN3342	II, III	Prohibited	Prohibited
Xenon, compressed	2.2	UN2036	n/a	2B	2B

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Xenon, refrigerated liquid *(cryogenic liquids)*	2.2	UN2591	n/a	Prohibited	Prohibited
Xylenes	3	UN1307	II, III	Prohibited	Prohibited
Xylenols, solid	6.1	UN2261	II	Prohibited	Prohibited
Xylenols, liquid	6.1	UN3430	II	Prohibited	Prohibited
Xylidines, solid	6.1	UN3452	II	Prohibited	Prohibited
Xylidines, liquid	6.1	UN1711	II	Prohibited	Prohibited
Xylyl bromide, liquid	6.1	UN1701	II	Prohibited	Prohibited
Xylyl bromide, solid	6.1	UN3417	II	Prohibited	Prohibited
p-Xylyl diazide	Forbidden	Prohibited	Prohibited	Prohibited	Prohibited
Z					
Zinc ammonium nitrite	5.1	UN1512	II	Prohibited	Prohibited
Zinc arsenate *or* Zinc arsenite *or* Zinc arsenate and zinc arsenite mixtures	6.1	UN1712	II	Prohibited	Prohibited
Zinc ashes	4.3	UN1435	III	Prohibited	4A
Zinc bisulfite solution, see Bisulfites, aqueous solutions, n.o.s.					
Zinc bromate	5.1	UN2469	III	5A	5A
Zinc chlorate	5.1	UN1513	II	5A	5A
Zinc chloride, anhydrous	8	UN2331	III	Prohibited	Prohibited
Zinc chloride, solution	8	UN1840	III	8A	8A
Zinc cyanide	6.1	UN1713	I	Prohibited	Prohibited
Zinc dithionite *or* Zinc hydrosulfite	9	UN1931	III	Prohibited	9C
Zinc fluorosilicate	6.1	UN2855	III	6A	6A
Zinc hydrosulfite, *see* Zinc dithionite					
Zinc muriate solution, see Zinc chloride, solution					
Zinc nitrate	5.1	UN1514	II	5A	5A
Zinc permanganate	5.1	UN1515	II	5A	5A
Zinc peroxide	5.1	UN1516	II	5A	5A
Zinc phosphide	4.3	UN1714	I	Prohibited	Prohibited
Zinc powder *or* Zinc dust	4.3	UN1436	I, II, III	Prohibited	Prohibited
Zinc resinate	4.1	UN2714	III	Prohibited	4A
Zinc selenate, see Selenates *or* Selenites					
Zinc selenite, see Selenates *or* Selenites					
Zinc silicofluoride, see Zinc fluorosilicate					
Zirconium, dry, *coiled wire, finished metal sheets, strip (thinner than 254 microns but not thinner than 18 microns)*	4.1	UN2858	III	Prohibited	4A
Zirconium, dry, *finished sheets, strip or coiled wire*	4.2	UN2009	III	Prohibited	Prohibited

Hazardous Materials Descriptions and Proper Shipping Names (a)	Hazard Class (b)	ID Number (c)	DOT PG (d)	Domestic Mail Air (e)	Domestic Mail Surface (f)
Zirconium hydride	4.1	UN1437	II	Prohibited	Prohibited
Zirconium nitrate	5.1	UN2728	III	5A	5A
Zirconium picramate, *dry or wetted with less than 20 percent water, by mass*	1.3C	UN0236	II	Prohibited	Prohibited
Zirconium picramate, wetted *with not less than 20 percent water, by mass*	4.1	UN1517	I	Prohibited	Prohibited
Zirconium powder, dry	4.2	UN2008	I, II, III	Prohibited	Prohibited
Zirconium powder, wetted *with not less than 25 percent water (a visible excess of water must be present) (a) mechanically produced, particle size less than 53 microns; (b) chemically produced, particle size less than 840 microns*	4.1	UN1358	II	Prohibited	Prohibited
Zirconium scrap	4.2	UN1932	III	Prohibited	Prohibited
Zirconium suspended in a liquid	3	UN1308	I, II	Prohibited	Prohibited
Zirconium suspended in a liquid	3	UN1308	III	Prohibited	3A
Zirconium tetrachloride	8	UN2503	III	8A	8A

Appendix B

Numerical Listing of Proper Shipping Names by Identification (ID) Number

This appendix contains a numerical list of the United Nations (UN) and North American (NA) identification (ID) numbers for proper shipping names of the hazardous materials listed alphabetically in Appendix A. The text appearing in *italic* type is not part of the proper shipping name of the hazardous material and is used for descriptive or references purposes only. This numerical list can be used to determine the proper shipping name of a hazardous material when the UN or NA number is known. Once the proper shipping name is known, it can be referenced back to Appendix A to determine the mailability of the hazardous material.

UN0004	Ammonium picrate, *dry or wetted with less than 10 percent water, by mass*
UN0005	Cartridges for weapons, *with bursting charge*
UN0006	Cartridges for weapons, *with bursting charge*
UN0007	Cartridges for weapons, *with bursting charge*
UN0009	Ammunition, incendiary *with or without burster, expelling charge, or propelling charge*
UN0010	Ammunition, incendiary *with or without burster, expelling charge, or propelling charge*
UN0012	Cartridges for weapons, inert projectile *or* Cartridges, small arms
UN0014	Cartridges for weapons, blank *or* Cartridges, small arms, blank
UN0015	Ammunition, smoke, *with or without burster, expelling charge, or propelling charge*
UN0016	Ammunition, smoke, *with or without burster, expelling charge, or propelling charge*
UN0018	Ammunition, tear–producing *with burster, expelling charge, or propelling charge*
UN0019	Ammunition, tear–producing *with burster, expelling charge, or propelling charge*
UN0020	Ammunition, toxic *with burster, expelling charge, or propelling charge*
UN0021	Ammunition, toxic *with burster, expelling charge, or propelling charge*
NA0027	Black powder for small arms
UN0027	Black powder *or* Gunpowder, *granular or as a meal*
UN0028	Black powder, compressed *or* Gunpowder, compressed *or* Black powder, in pellets *or* Gunpowder, in pellets
UN0029	Detonators, non–electric, *for blasting*
UN0030	Detonators, electric, *for blasting*
UN0033	Bombs, *with bursting charge*
UN0034	Bombs, *with bursting charge*
UN0035	Bombs, *with bursting charge*
UN0037	Bombs, photo–flash
UN0038	Bombs, photo–flash
UN0039	Bombs, photo–flash

UN0042	Boosters, *without detonator*
UN0043	Bursters, *explosive*
UN0044	Primers, cap type
UN0048	Charges, demolition
UN0049	Cartridges, flash
UN0050	Cartridges, flash
UN0054	Cartridges, signal
UN0055	Cases, cartridge, empty with primer
UN0056	Charges, depth
UN0059	Charges, shaped, *without detonator*
UN0060	Charges, supplementary explosive
UN0065	Cord, detonating, *flexible*
UN0066	Cord, igniter
UN0070	Cutters, cable, explosive
UN0072	Cyclotrimethylenetrinitramine, wetted *or* Cyclonite, wetted *or* Hexogen, wetted *or* RDX, wetted *with not less than 15 percent water by mass*
UN0073	Detonators for ammunition
UN0074	Diazodinitrophenol, wetted *with not less than 40 percent water or mixture of alcohol and water, by mass*
UN0075	Diethyleneglycol dinitrate, desensitized *with not less than 25 percent non–volatile water–insoluble phlegmatizer, by mass*
UN0076	Dinitrophenol, *dry or wetted with less than 15 percent water, by mass*
UN0077	Dinitrophenolates *alkali metals, dry or wetted with less than 15 percent water, by mass*
UN0078	Dinitroresorcinol, *dry or wetted with less than 15 percent water, by mass*
UN0079	Hexanitrodiphenylamine *or* Dipicrylamine *or* Hexyl
UN0081	Explosive, blasting, type A
UN0082	Explosive, blasting, type B
UN0083	Explosive, blasting, type C
UN0084	Explosive, blasting, type D
UN0092	Flares, surface
UN0093	Flares, aerial
UN0094	Flash powder
UN0099	Fracturing devices, explosives, *without detonators for oil wells*
UN0101	Fuse, non–detonating *(instantaneous or quickmatch)*
UN0102	Cord detonating *or* Fuse detonating metal clad
UN0103	Fuse, igniter *tubular metal clad*
UN0104	Cord, detonating, mild effect *or* Fuse, detonating, mild effect *metal clad*
UN0105	Fuse, safety
UN0106	Fuzes, detonating
UN0107	Fuzes, detonating
UN0110	Grenades, practice, *hand or rifle*
UN0113	Guanyl nitrosaminoguanylidene hydrazine, wetted *with not less than 30 percent water, by mass*
UN0114	Guanyl nitrosaminoguanyltetrazene, wetted *or* Tetrazene, wetted *with not less than 30 percent water or mixture of alcohol and water, by mass*
UN0118	Hexolite, *or* Hexotol dry or wetted *with less than 15 percent water, by mass*
UN0121	Igniters
NA0124	Jet, perforating guns, charged *oil well, with detonator*

UN0124	Jet, perforating guns, charged oil well, without detonator
UN0129	Lead azide, wetted *with not less than 20 percent water or mixture of alcohol and water, by mass*
UN0130	Lead styphnate, wetted *or* Lead trinitroresorcinate, wetted *with not less than 20 percent water or mixture of alcohol and water, by mass*
UN0131	Lighters, fuse
UN0132	Deflagrating metal salts of aromatic nitroderivatives, n.o.s.
UN0133	Mannitol hexanitrate, wetted *or* Nitromannite, wetted *with not less than 40 percent water, or mixture of alcohol and water, by mass*
UN0135	Mercury fulminate, wetted *with not less than 20 percent water, or mixture of alcohol and water, by mass*
UN0136	Mines *with bursting charge*
UN0137	Mines *with bursting charge*
UN0138	Mines *with bursting charge*
UN0143	Nitroglycerin, desensitized *with not less than 40 percent non–volatile water insoluble phlegmatizer, by mass*
UN0144	Nitroglycerin, solution in alcohol, *with more than 1 percent but not more than 10 percent nitroglycerin*
UN0146	Nitrostarch, *dry or wetted with less than 20 percent water, by mass*
UN0147	Nitro urea
UN0150	Pentaerythrite tetranitrate, wetted *or* Pentaerythritol tetranitrate, wetted *or* PETN, wetted *with not less than 25 percent water, by mass, or* Pentaerythrite tetranitrate, *or* Pentaerythritol tetranitrate, or PETN, desensitized *with not less than 15 percent*
UN0151	Pentolite, *dry or wetted with less than 15 percent water, by mass*
UN0153	Trinitroaniline *or* Picramide
UN0154	Trinitrophenol *or* Picric acid, *dry or wetted with less than 30 percent water, by mass*
UN0155	Trinitrochlorobenzene *or* Picryl chloride
UN0159	Powder cake, wetted *or* Powder paste, wetted *with not less than 25 percent water, by mass*
UN0160	Powder, smokeless
UN0161	Powder, smokeless
UN0167	Projectiles, *with bursting charge*
UN0168	Projectiles, *with bursting charge*
UN0169	Projectiles, *with bursting charge*
UN0171	Ammunition, illuminating *with or without burster, expelling charge, or propelling charge*
UN0173	Release devices, explosive
UN0174	Rivets, explosive
UN0180	Rockets, *with bursting charge*
UN0181	Rockets, *with bursting charge*
UN0182	Rockets, *with bursting charge*
UN0183	Rockets, *with inert head*
UN0186	Rocket motors
UN0190	Samples, explosive, *other than initiating explosives*
UN0191	Signal devices, hand
UN0192	Signals, railway track, explosive
UN0193	Signals, railway track, explosive
UN0194	Signals, distress, *ship*
UN0195	Signals, distress, *ship*
UN0196	Signals, smoke
UN0197	Signals, smoke

UN0204	Sounding devices, explosive
UN0207	Tetranitroaniline
UN0208	Trinitrophenylmethylnitramine *or* Tetryl
UN0209	Trinitrotoluene or TNT, *dry or wetted with less than 30 percent water, by mass*
UN0212	Tracers for ammunition
UN0213	Trinitroanisole
UN0214	Trinitrobenzene, *dry or wetted with less than 30 percent water, by mass*
UN0215	Trinitrobenzoic acid, *dry or wetted with less than 30 percent water, by mass*
UN0216	Trinitro–meta–cresol
UN0217	Trinitronaphthalene
UN0218	Trinitrophenetole
UN0219	Trinitroresorcinol *or* Styphnic acid, *dry or wetted with less than 20 percent water, or mixture of alcohol and water, by mass*
UN0220	Urea nitrate, *dry or wetted with less than 20 percent water, by mass*
UN0221	Warheads, torpedo *with bursting charge*
UN0222	Ammonium nitrate, *with more than 0.2 percent combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substance*
UN0224	Barium azide, *dry or wetted with less than 50 percent water, by mass*
UN0225	Boosters with detonator
UN0226	Cyclotetramethylenetetranitramine, wetted *or* HMX, wetted *or* Octogen, wetted *with not less than 15 percent water, by mass*
UN0234	Sodium dinitro–o–cresolate, *dry or wetted with less than 15 percent water, by mass*
UN0235	Sodium picramate, *dry or wetted with less than 20 percent water, by mass*
UN0236	Zirconium picramate, *dry or wetted with less than 20 percent water, by mass*
UN0237	Charges, shaped, flexible, linear
UN0238	Rockets, line–throwing
UN0240	Rockets, line–throwing
UN0241	Explosive, blasting, type E
UN0242	Charges, propelling, for cannon
UN0243	Ammunition, incendiary, white phosphorus, *with burster, expelling charge, or propelling charge*
UN0244	Ammunition, incendiary, white phosphorus, *with burster, expelling charge, or propelling charge*
UN0245	Ammunition smoke, white phosphorus *with burster, expelling charge, or propelling charge*
UN0246	Ammunition, smoke, white phosphorus with burster, expelling charge, or propelling charge
UN0247	Ammunition, incendiary *liquid or gel, with burster, expelling charge, or propelling charge*
UN0248	Contrivances, water–activated, *with burster, expelling charge, or propelling charge*
UN0249	Contrivances, water–activated, *with burster, expelling charge, or propelling charge*
UN0250	Rocket motors with hypergolic liquids *with or without an expelling charge*
UN0254	Ammunition, illuminating *with or without burster, expelling charge, or propelling charge*
UN0255	Detonators, electric, for blasting
UN0257	Fuzes, detonating
UN0266	Octolite *or* Octol, *dry or wetted with less than 15 percent water, by mass*
UN0267	Detonators, non–electric, *for blasting*
UN0268	Boosters with detonator
UN0271	Charges, propelling
UN0272	Charges, propelling
UN0275	Cartridges, power device

NA0276	Model rocket motor
UN0276	Cartridges, power device
UN0277	Cartridges, oil well
UN0278	Cartridges, oil well
UN0279	Charges, propelling, for cannon
UN0280	Rocket motors
UN0281	Rocket motors
UN0282	Nitroguanidine *or* Picrite, *dry or wetted with less than 20 percent water, by mass*
UN0283	Boosters, *without detonator*
UN0284	Grenades, *hand or rifle, with bursting charge*
UN0285	Grenades, *hand or rifle, with bursting charge*
UN0286	Warheads, rocket *with bursting charge*
UN0287	Warheads, rocket *with bursting charge*
UN0288	Charges, shaped, flexible, linear
UN0289	Cord, detonating, *flexible*
UN0290	Cord, detonating *or* Fuse, detonating *metal clad*
UN0291	Bombs, *with bursting charge*
UN0292	Grenades, *hand or rifle, with bursting charge*
UN0293	Grenades, *hand or rifle, with bursting charge*
UN0294	Mines *with bursting charge*
UN0295	Rockets, *with bursting charge*
UN0296	Sounding devices, explosive
UN0297	Ammunition, illuminating *with or without burster, expelling charge, or propelling charge*
UN0299	Bombs, photo–flash
UN0300	Ammunition, incendiary *with or without burster, expelling charge, or propelling charge*
UN0301	Ammunition, tear–producing *with burster, expelling charge, or propelling charge*
UN0303	Ammunition, smoke, *with or without burster, expelling charge, or propelling charge*
UN0305	Flash powder
UN0306	Tracers for ammunition
UN0312	Cartridges, signal
UN0313	Signals, smoke
UN0314	Igniters
UN0315	Igniters
UN0316	Fuzes, igniting
UN0317	Fuzes, igniting
UN0318	Grenades, practice, *hand or rifle*
UN0319	Primers, tubular
UN0320	Primers, tubular
UN0321	Cartridges for weapons, *with bursting charge*
UN0322	Rocket motors with hypergolic liquids *with or without an expelling charge*
NA0323	Model rocket motor
UN0323	Cartridges, power device
UN0324	Projectiles, *with bursting charge*
UN0325	Igniters
UN0326	Cartridges for weapons, blank
UN0327	Cartridges for weapons, blank *or* Cartridges, small arms, blank

UN0328	Cartridges for weapons, inert projectile
UN0329	Torpedoes *with bursting charge*
UN0330	Torpedoes *with bursting charge*
NA0331	Ammonium nitrate–fuel oil mixture containing only prilled ammonium nitrate and fuel oil
UN0331	Explosive, blasting, type B *or* Agent blasting, Type B
UN0332	Explosive, blasting, type E *or* Agent blasting, Type E
UN0333	Fireworks
UN0334	Fireworks
UN0335	Fireworks
UN0336	Fireworks
NA0337	Toy caps
UN0337	Fireworks
UN0338	Cartridges for weapons, blank or Cartridges, small arms, blank
UN0339	Cartridges for weapons, inert projectile or Cartridges, small arms
UN0340	Nitrocellulose, *dry or wetted with less than 25 percent water (or alcohol), by mass*
UN0341	Nitrocellulose, *unmodified or plasticized with less than 18 percent plasticizing substance, by mass*
UN0342	Nitrocellulose, wetted *with not less than 25 percent alcohol, by mass*
UN0343	Nitrocellulose, plasticized *with not less than 18 percent plasticizing substance, by mass*
UN0344	Projectiles, *with bursting charge*
UN0345	Projectiles, *inert with tracer*
UN0346	Projectiles, *with burster or expelling charge*
UN0347	Projectiles, *with burster or expelling charge*
UN0348	Cartridges for weapons, *with bursting charge*
NA0349	Grenades, empty primed
UN0349	Articles, explosive, n.o.s.
UN0350	Articles, explosive, n.o.s.
UN0351	Articles, explosive, n.o.s.
UN0352	Articles, explosive, n.o.s.
UN0353	Articles, explosive, n.o.s.
UN0354	Articles, explosive, n.o.s.
UN0355	Articles, explosive, n.o.s.
UN0356	Articles, explosive, n.o.s.
UN0357	Substances, explosive, n.o.s.
UN0358	Substances, explosive, n.o.s.
UN0359	Substances, explosive, n.o.s.
UN0360	Detonator assemblies, non–electric *for blasting*
UN0361	Detonator assemblies, non–electric *for blasting*
UN0362	Ammunition, practice
UN0363	Ammunition, proof
UN0364	Detonators for ammunition
UN0365	Detonators for ammunition
UN0366	Detonators for ammunition
UN0367	Fuzes, detonating
UN0368	Fuzes, igniting
UN0369	Warheads, rocket *with bursting charge*
UN0370	Warheads, rocket *with burster or expelling charge*

UN0371	Warheads, rocket *with burster or expelling charge*
UN0372	Grenades, practice, *hand or rifle*
UN0373	Signal devices, hand
UN0374	Sounding devices, explosive
UN0375	Sounding devices, explosive
UN0376	Primers, tubular
UN0377	Primers, cap type
UN0378	Primers, cap type
UN0379	Cases, cartridges, empty with primer
UN0380	Articles, pyrophoric
UN0381	Cartridges, power device
UN0382	Components, explosive train, n.o.s.
UN0383	Components, explosive train, n.o.s.
UN0384	Components, explosive train, n.o.s.
UN0385	5–Nitrobenzotriazol
UN0386	Trinitrobenzenesulfonic acid
UN0387	Trinitrofluorenone
UN0388	Trinitrotoluene and Trinitrobenzene mixtures or TNT and trinitrobenzene mixtures or TNT and hexanitrostilbene mixtures or Trinitrotoluene and hexanitrostilbene mixtures
UN0389	Trinitrotoluene mixtures containing Trinitrobenzene and Hexanitrostilbene or TNT mixtures containing trinitrobenzene and hexanitrostilbene
UN0390	Tritonal
UN0391	RDX and HMX mixtures, wetted *with not less than 15 percent water by mass or* RDX and HMX mixtures, *desensitized with not less than 10 percent phlegmatizer by mass*
UN0392	Hexanitrostilbene
UN0393	Hexotonal
UN0394	Trinitroresorcinol, wetted *or* Styphnic acid, *wetted with not less than 20 percent water, or mixture of alcohol and water, by mass*
UN0395	Rocket motors, liquid fueled
UN0396	Rocket motors, liquid fueled
UN0397	Rockets, liquid fueled *with bursting charge*
UN0398	Rockets, liquid fueled *with bursting charge*
UN0399	Bombs with flammable liquid, *with bursting charge*
UN0400	Bombs with flammable liquid, *with bursting charge*
UN0401	Dipicryl sulfide, *dry or wetted with less than 10 percent water, by mass*
UN0402	Ammonium perchlorate
UN0403	Flares, aerial
UN0404	Flares, aerial
UN0405	Cartridges, signal
UN0406	Dinitrosobenzene
UN0407	Tetrazol–1–acetic acid
UN0408	Fuzes, detonating, *with protective features*
UN0409	Fuzes, detonating, *with protective features*
UN0410	Fuzes, detonating, *with protective features*
UN0411	Pentaerythrite tetranitrate *or* Pentaerythritol tetranitrate *or* PETN, *with not less than 7 percent wax by mass*
UN0412	Cartridges for weapons, *with bursting charge*

UN0413	Cartridges for weapons, blank
UN0414	Charges, propelling, for cannon
UN0415	Charges, propelling
UN0417	Cartridges for weapons, inert projectile or Cartridges, small arms
UN0418	Flares, surface
UN0419	Flares, surface
UN0420	Flares, aerial
UN0421	Flares, aerial
UN0424	Projectiles, *inert with tracer*
UN0425	Projectiles, *inert with tracer*
UN0426	Projectiles, *with burster or expelling charge*
UN0427	Projectiles, *with burster or expelling charge*
UN0428	Articles, pyrotechnic *for technical purposes*
UN0429	Articles, pyrotechnic *for technical purposes*
UN0430	Articles, pyrotechnic *for technical purposes*
UN0431	Articles, pyrotechnic *for technical purposes*
UN0432	Articles, pyrotechnic *for technical purposes*
UN0433	Powder cake, wetted *or* Powder paste, wetted *with not less than 17 percent alcohol by mass*
UN0434	Projectiles, *with burster or expelling charge*
UN0435	Projectiles, *with burster or expelling charge*
UN0436	Rockets, *with expelling charge*
UN0437	Rockets, *with expelling charge*
UN0438	Rockets, *with expelling charge*
UN0439	Charges, shaped, *without detonator*
UN0440	Charges, shaped, *without detonator*
UN0441	Charges, shaped, *without detonator*
UN0442	Charges, explosive, commercial *without detonator*
UN0443	Charges, explosive, commercial *without detonator*
UN0444	Charges, explosive, commercial *without detonator*
UN0445	Charges, explosive, commercial *without detonator*
UN0446	Cases, combustible, empty, without primer
UN0447	Cases, combustible, empty, without primer
UN0448	5–Mercaptotetrazol–1–acetic acid
UN0449	Torpedoes, liquid fueled, *with or without bursting charge*
UN0450	Torpedoes, liquid fueled, *with inert head*
UN0451	Torpedoes *with bursting charge*
UN0452	Grenades, practice, *hand or rifle*
UN0453	Rockets, *line–throwing*
UN0454	Igniters
UN0455	Detonators, non–electric, *for blasting*
UN0456	Detonators, electric, for blasting
UN0457	Charges, bursting, plastics bonded
UN0458	Charges, bursting, plastics bonded
UN0459	Charges, bursting, plastics bonded
UN0460	Charges, bursting, plastics bonded
UN0461	Components, explosive train, n.o.s.

UN0462	Articles, explosive, n.o.s.
UN0463	Articles, explosive, n.o.s.
UN0464	Articles, explosive, n.o.s.
UN0465	Articles, explosive, n.o.s.
UN0466	Articles, explosive, n.o.s.
UN0467	Articles, explosive, n.o.s.
UN0468	Articles, explosive, n.o.s.
UN0469	Articles, explosive, n.o.s.
UN0470	Articles, explosive, n.o.s.
UN0471	Articles, explosive, n.o.s.
UN0472	Articles, explosive, n.o.s.
NA0473	Barium styphnate *or* Lead mononitroresorcinate
UN0473	Substances, explosive, n.o.s.
UN0474	Substances, explosive, n.o.s.
UN0475	Substances, explosive, n.o.s.
UN0476	Substances, explosive, n.o.s.
UN0477	Substances, explosive, n.o.s.
UN0478	Substances, explosive, n.o.s.
UN0479	Substances, explosive, n.o.s.
UN0480	Substances, explosive, n.o.s.
UN0481	Substances, explosive, n.o.s.
UN0482	Substances, explosive, very insensitive, n.o.s., *or* Substances, EVI, n.o.s.
UN0483	Cyclotrimethylenetrinitramine, desensitized *or* Cyclonite, desensitized *or* Hexogen, desensitized *or* RDX, desensitized
UN0484	Cyclotetramethylenetetranitramine, desensitized *or* Octogen, desensitized *or* HMX, desensitized
UN0485	Substances, explosive, n.o.s.
UN0486	Articles, explosive, extremely insensitive *or* Articles, EEI
UN0487	Signals, smoke
UN0488	Ammunition, practice
UN0489	Dinitroglycoluril *or* Dingu
UN0490	Nitrotriazolone *or* NTO
UN0491	Charges, propelling
UN0492	Signals, railway track, explosive
UN0493	Signals, railway track, explosive
NA0494	Jet, perforating guns, charged *oil well, with detonator*
UN0494	Jet, perforating guns, charged *oil well, without detonator*
UN0495	Propellant, liquid
UN0496	Octonal
UN0497	Propellant, liquid
UN0498	Propellant, solid
UN0499	Propellant, solid
UN0500	Detonator assemblies, non–electric *for blasting*
UN0503	Air bag inflators, *or* Air bag modules, *or* Seatbelt pretensioners
UN0504	1H-Tetrazole
UN1001	Acetylene, dissolved
UN1002	Air, compressed

UN1003	Air, refrigerated liquid, *(cryogenic liquid) or* Air, refrigerated liquid *(cryogenic liquid) non–pressurized*
UN1005	Ammonia, anhydrous
UN1006	Argon, compressed
UN1008	Boron trifluoride
UN1009	Bromotrifluoromethane *or* Refrigerant gas, R 13B1
UN1010	Butadienes, stabilized *or* Butadienes and Hydrocarbon mixture, stabilized *containing more than 40% butadienes*
UN1011	Butane *see also Petroleum gases, liquified*
UN1012	Butylene *see also Petroleum gases, liquified*
UN1013	Carbon dioxide
UN1016	Carbon monoxide, compressed
UN1017	Chlorine
UN1018	Chlorodifluoromethane *or* Refrigerant gas R 22
UN1020	Chloropentafluoroethane *or* Refrigerant gas R 115
UN1021	1–Chloro–1,2,2,2–tetrafluoroethane *or* Refrigerant gas R 124
UN1022	Chlorotrifluoromethane *or* Refrigerant gas R 13
UN1023	Coal gas, compressed
UN1026	Cyanogen
UN1027	Cyclopropane
UN1028	Dichlorodifluoromethane *or* Refrigerant gas R 12
UN1029	Dichlorofluoromethane *or* Refrigerant gas R 21
UN1030	1,1–Difluoroethane *or* Refrigerant gas R 152a
UN1032	Dimethylamine, anhydrous
UN1033	Dimethyl ether
UN1035	Ethane
UN1036	Ethylamine
UN1037	Ethyl chloride
UN1038	Ethylene, refrigerated liquid *(cryogenic liquid)*
UN1039	Ethyl methyl ether
UN1040	Ethylene oxide *or* Ethylene oxide with nitrogen *up to a total pressure of 1MPa (10 bar) at 50° C*
UN1041	Ethylene oxide and carbon dioxide mixtures *with more than 9 percent but not more than 87 percent ethylene oxide*
UN1043	Fertilizer ammoniating solution *with free ammonia*
UN1044	Fire extinguishers containing *compressed or liquified gas*
UN1045	Fluorine, compressed
UN1046	Helium, compressed
UN1048	Hydrogen bromide, anhydrous
UN1049	Hydrogen, compressed
UN1050	Hydrogen chloride, anhydrous
UN1051	Hydrogen cyanide, stabilized *with less than 3 percent water*
UN1052	Hydrogen fluoride, anhydrous
UN1053	Hydrogen sulfide
UN1055	Isobutylene *see also Petroleum gases, liquified*
UN1056	Krypton, compressed
UN1057	Lighters *or* Lighter refills *cigarettes, containing flammable gas*
UN1058	Liquified gases, *nonflammable charged with nitrogen, carbon dioxide, or air*

UN1060	Methyl acetylene and propadiene mixtures, stabilized
UN1061	Methylamine, anhydrous
UN1062	Methyl bromide
UN1063	Methyl chloride, *or* Refrigerant gas R 40
UN1064	Methyl mercaptan
UN1065	Neon, compressed
UN1066	Nitrogen, compressed
UN1067	Dinitrogen tetroxide
UN1069	Nitrosyl chloride
UN1070	Nitrous oxide
UN1071	Oil gas, compressed
UN1072	Oxygen, compressed
UN1073	Oxygen, refrigerated liquid *(cryogenic liquid)*
UN1075	Petroleum gases, liquified *or* Liquified petroleum gas
UN1076	Phosgene
UN1077	Propylene *see also Petroleum gases, liquified*
UN1078	Refrigerant gases, n.o.s.
UN1079	Sulfur dioxide
UN1080	Sulfur hexafluoride
UN1081	Tetrafluoroethylene, stabilized
UN1082	Trifluorochloroethylene, stabilized
UN1083	Trimethylamine, anhydrous
UN1085	Vinyl bromide, stabilized
UN1086	Vinyl chloride, stabilized
UN1087	Vinyl methyl ether, stabilized
UN1088	Acetal
UN1089	Acetaldehyde
UN1090	Acetone
UN1091	Acetone oils
UN1092	Acrolein, stabilized
UN1093	Acrylonitrile, stabilized
UN1098	Allyl alcohol
UN1099	Allyl bromide
UN1100	Allyl chloride
UN1104	Amyl acetates
UN1105	Pentanols
UN1106	Amylamines
UN1107	Amyl chlorides
UN1108	1–Pentene (n–amylene)
UN1109	Amyl formates
UN1110	n–Amyl methyl ketone
UN1111	Amyl mercaptans
UN1112	Amyl nitrate
UN1113	Amyl nitrites
UN1114	Benzene
UN1120	Butanols

UN1123	Butyl acetates
UN1125	n–Butylamine
UN1126	1–Bromobutane
UN1127	Chlorobutanes
UN1128	n–Butyl formate
UN1129	Butyraldehyde
UN1130	Camphor oil
UN1131	Carbon disulfide
UN1133	Adhesives, *containing a flammable liquid*
UN1134	Chlorobenzene
UN1135	Ethylene chlorohydrin
UN1136	Coal tar distillates, flammable
UN1139	Coating solution *(includes surface treatments or coatings used for industrial or other purposes such as vehicle undercoating, drum or barrel lining)*
UN1143	Crotonaldehyde, *or* Crotonaldehyde, stabilized
UN1144	Crotonylene
UN1145	Cyclohexane
UN1146	Cyclopentane
UN1148	Diacetone alcohol
UN1149	Dibutyl ethers
UN1150	1,2–Dichloroethylene
UN1152	Dichloropentanes
UN1153	Ethylene glycol diethyl ether
UN1154	Diethylamine
UN1155	Diethyl ether or Ethyl ether
UN1156	Diethyl ketone
UN1157	Diisobutyl ketone
UN1158	Diisopropylamine
UN1159	Diisopropyl ether
UN1160	Dimethylamine solution
UN1161	Dimethyl carbonate
UN1162	Dimethyldichlorosilane
UN1163	Dimethylhydrazine, unsymmetrical
UN1164	Dimethyl sulfide
UN1165	Dioxane
UN1166	Dioxolane
UN1167	Divinyl ether, stabilized
UN1170	Ethanol *or* Ethyl alcohol *or* Ethanol solutions *or* Ethyl alcohol solutions
UN1171	Ethylene glycol monoethyl ether
UN1172	Ethylene glycol monoethyl ether acetate
UN1173	Ethyl acetate
UN1175	Ethylbenzene
UN1176	Ethyl borate
UN1177	2–Ethylbutyl acetate
UN1178	2–Ethylbutyraldehyde
UN1179	Ethyl butyl ether

UN1180	Ethyl butyrate
UN1181	Ethyl chloroacetate
UN1182	Ethyl chloroformate
UN1183	Ethyldichlorosilane
UN1184	Ethylene dichloride
UN1185	Ethyleneimine, stabilized
UN1188	Ethylene glycol monomethyl ether
UN1189	Ethylene glycol monomethyl ether acetate
UN1190	Ethyl formate
UN1191	Octyl aldehydes
UN1192	Ethyl lactate
UN1193	Ethyl methyl ketone *or* Methyl ethyl ketone
UN1194	Ethyl nitrate solutions
UN1195	Ethyl propionate
UN1196	Ethyltrichlorosilane
UN1197	Extracts, Liquid, for flavor or aroma
UN1198	Formaldehyde, solutions, flammable
UN1199	Furaldehydes
UN1201	Fusel oil
UN1202	Diesel fuel
NA1203	Gasohol *gasoline mixed with ethyl alcohol, with not more than 20 percent alcohol*
UN1203	Gasoline
UN1204	Nitroglycerin, solution in alcohol, *with not more than 1 percent nitroglycerin*
UN1206	Heptanes
UN1207	Hexaldehyde
UN1208	Hexanes
UN1210	Printing ink, *flammable*
UN1212	Isobutanol *or* Isobutyl alcohol
UN1213	Isobutyl acetate
UN1214	Isobutylamine
UN1216	Isooctenes
UN1218	Isoprene, inhibited
UN1219	Isopropanol *or* Isopropyl alcohol
UN1220	Isopropyl acetate
UN1221	Isopropylamine
UN1222	Isopropyl nitrate
UN1223	Kerosene
UN1224	Ketones, liquid, n.o.s.
NA1226	Lighters for cigars, cigarettes, *etc., with lighter fluids*
UN1228	Mercaptans, liquid, flammable, toxic, n.o.s. *or* Mercaptan mixtures, liquid, flammable, toxic, n.o.s.
UN1229	Mesityl oxide
UN1230	Methanol
UN1231	Methyl acetate
UN1233	Methylamyl acetate
UN1234	Methylal
UN1235	Methylamine, aqueous solution

UN1237	Methyl butyrate
UN1238	Methyl chloroformate
UN1239	Methyl chloromethyl ether
UN1242	Methyldichlorosilane
UN1243	Methyl formate
UN1244	Methylhydrazine
UN1245	Methyl isobutyl ketone
UN1246	Methyl isopropenyl ketone, inhibited
UN1247	Methyl methacrylate monomer, inhibited
UN1248	Methyl propionate
UN1249	Methyl propyl ketone
UN1250	Methyltrichlorosilane
UN1251	Methyl vinyl ketone, stabilized
UN1259	Nickel carbonyl
UN1261	Nitromethane
UN1262	Octanes
UN1263	Paint *including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler, and liquid lacquer base, or* Paint related material *including paint thinning, drying, removing, or reducing compound*
UN1264	Paraldehyde
UN1265	Pentanes
UN1266	Perfumery products *with flammable solvents*
UN1267	Petroleum crude oil
UN1268	Petroleum distillates, n.o.s. *or* Petroleum products, n.o.s.
NA1270	Petroleum oil
UN1272	Pine oil
UN1274	n–Propanol *or* Propyl alcohol, normal
UN1275	Propionaldehyde
UN1276	n–Propyl acetate
UN1277	Propylamine
UN1278	1-Chloropropane
UN1279	1,2–Dichloropropane
UN1280	Propylene oxide
UN1281	Propyl formates
UN1282	Pyridine
UN1286	Rosin oil
UN1287	Rubber solution
UN1288	Shale Oil
UN1289	Sodium methylate solutions in alcohol
UN1292	Tetraethyl silicate
UN1293	Tinctures, medicinal
UN1294	Toluene
UN1295	Trichlorosilane
UN1296	Triethylamine
UN1297	Trimethylamine, aqueous solutions *with not more than 50 percent trimethylamine by mass*
UN1298	Trimethylchlorosilane

UN1299	Turpentine
UN1300	Turpentine substitute
UN1301	Vinyl acetate, stabilized
UN1302	Vinyl ethyl ether, stabilized
UN1303	Vinylidene chloride, stabilized
UN1304	Vinyl isobutyl ether, stabilized
UN1305	Vinyltrichlorosilane, stabilized
UN1306	Wood preservatives, liquid
UN1307	Xylenes
UN1308	Zirconium suspended in a liquid
UN1309	Aluminum powder, coated
UN1310	Ammonium picrate, wetted *with not less than 10 percent water, by mass*
UN1312	Borneol
UN1313	Calcium resinate
UN1314	Calcium resinate, fused
UN1318	Cobalt resinate, precipitated
UN1320	Dinitrophenol, wetted *with not less than 15 percent water, by mass*
UN1321	Dinitrophenolates, wetted *with not less than 15 percent water, by mass*
UN1322	Dinitroresorcinol, wetted *with not less than 15 percent water, by mass*
UN1323	Ferrocerium
UN1324	Films, nitrocellulose base, *gelatine coated (except scrap)*
NA1325	Fusee (railway or highway) *or* Medicines, flammable, solid, n.o.s.
UN1325	Flammable solids, organic, n.o.s.
UN1326	Hafnium powder, wetted *with not less than 25 percent water (a visible excess of water must be present) (a) mechanically produced, particle size less than 53 microns; (b) chemically produced, particle size less than 840 microns*
UN1328	Hexamethylenetetramine
UN1330	Manganese resinate
UN1331	Matches, strike anywhere
UN1332	Metaldehyde
UN1333	Cerium, *slabs, ingots, or rods*
UN1334	Naphthalene, crude *or* Naphthalene, refined
UN1336	Nitroguanidine, wetted *or* Picrite, wetted *with not less than 20 percent water, by mass*
UN1337	Nitrostarch, wetted *with not less than 20 percent water, by mass*
UN1338	Phosphorus, amorphous
UN1339	Phosphorus heptasulfide, *free from yellow or white phosphorus*
UN1340	Phosphorus pentasulfide, *free from yellow or white phosphorus*
UN1341	Phosphorus sesquisulfide, *free from yellow or white phosphorus*
UN1343	Phosphorus trisulfide, *free from yellow or white phosphorus*
NA1344	Picric acid, wet, *with not less than 10 percent water*
UN1344	Trinitrophenol, wetted *with not less than 30 percent water, by mass*
UN1346	Silicon powder, amorphous
UN1347	Silver picrate, wetted *with not less than 30 percent water, by mass*
UN1348	Sodium dinitro–o–cresolate, wetted *with not less than 15 percent water, by mass*
UN1349	Sodium picramate, wetted *with not less than 20 percent water, by mass*
NA1350	Sulfur

UN1350	Sulfur
UN1352	Titanium powder, wetted *with not less than 25 percent water (a visible excess of water must be present) (a) mechanically produced, particle size less than 53 microns; (b) chemically produced, particle size less than 840 microns*
UN1353	Fibers *or* Fabrics impregnated with weakly nitrated nitrocellulose, n.o.s.
UN1355	Trinitrobenzoic acid, wetted *with not less than 30 percent water, by mass*
UN1356	Trinitrotoluene wetted *with not less than 30 percent water, by mass*
UN1357	Urea nitrate, wetted *with not less than 20 percent water, by mass*
UN1358	Zirconium powder, wetted *with not less than 25 percent water (a visible excess of water must be present) (a) mechanically produced, particle size less than 53 microns; (b) chemically produced, particle size less than 840 microns*
UN1360	Calcium phosphide
NA1361	Charcoal briquettes, *shell, screenings, wood, etc.*
UN1361	Carbon, *animal or vegetable origin*
UN1362	Carbon, activated
UN1363	Copra
UN1364	Cotton waste, oily
NA1365	Cotton
UN1365	Cotton, wet
UN1369	p–Nitrosodimethylaniline
UN1372	Fibers, animal *or* Fibers, vegetable *burnt, wet or damp*
UN1373	Fibers *or* Fabrics, animal *or* vegetable *or* Synthetic, n.o.s. *with animal or vegetable oil*
UN1374	Fish meal, unstabilized *or* Fish scrap, unstabilized
UN1376	Iron oxide, spent, *or* Iron sponge, spent *obtained from coal gas purification*
UN1378	Metal catalyst, wetted *with a visible excess of liquid*
UN1379	Paper, unsaturated oil treated *incompletely dried (including carbon paper)*
UN1380	Pentaporane
UN1381	Phosphorus, white dry *or* Phosphorus, white, under water *or* Phosphorus white, in solution *or* Phosphorus, yellow dry *or* Phosphorus, yellow, under water *or* Phosphorus, yellow, in solution
UN1382	Potassium sulfide, anhydrous *or* Potassium sulfide *with less than 30 percent water of crystallization*
UN1383	Pyrophoric metals, n.o.s. *or* Pyrophoric alloys, n.o.s.
UN1384	Sodium dithionite *or* Sodium hydrosulfite
UN1385	Sodium sulfide, anhydrous *or* Sodium sulfide *with less than 30 percent water of crystallization*
UN1386	Seed cake, *containing vegetable oil solvent extractions and expelled seeds, with not more than 10 percent of oil and when the amount of moisture is higher than 11 percent, with not more than 20 percent of oil and moisture combined or* Seed cake *with more than 1.5 percent oil and not more than 11 percent moisture*
UN1387	Wool waste, wet
UN1389	Alkali metal amalgam, liquid
UN1390	Alkali metal amides
UN1391	Alkali metal dispersions, *or* Alkaline earth metal dispersions
UN1392	Alkaline earth metal amalgams, liquid
UN1393	Alkaline earth metal alloys, n.o.s.
UN1394	Aluminum carbide
UN1395	Aluminum ferrosilicon powder
UN1396	Aluminum powder, uncoated
UN1397	Aluminum phosphide
UN1398	Aluminum silicon powder, uncoated

UN1400	Barium
UN1401	Calcium
UN1402	Calcium carbide
UN1403	Calcium cyanamide *with more than 0.1 percent of calcium carbide*
UN1404	Calcium hydride
UN1405	Calcium silicide
UN1407	Cesium or Caesium
UN1408	Ferrosilicon, *with 30 percent or more but less than 90 percent silicon*
UN1409	Metal hydrides, water–reactive, n.o.s.
UN1410	Lithium aluminum hydride
UN1411	Lithium aluminum hydride, ethereal
UN1413	Lithium borohydride
UN1414	Lithium hydride
UN1415	Lithium
UN1417	Lithium silicon
UN1418	Magnesium, powder *or* Magnesium alloys, powder
UN1419	Magnesium aluminum phosphide
UN1420	Potassium, metal alloys
UN1421	Alkali metal alloys, liquid, n.o.s.
UN1422	Potassium sodium alloys
UN1423	Rubidium
UN1426	Sodium borohydride
UN1427	Sodium hydride
UN1428	Sodium
UN1431	Sodium methylate
UN1432	Sodium phosphide
UN1433	Stannic phosphide
UN1435	Zinc ashes
UN1436	Zinc powder *or* Zinc dust
UN1437	Zirconium hydride
UN1438	Aluminum, nitrate
UN1439	Ammonium dichromate
UN1442	Ammonium perchlorate
UN1444	Ammonium persulfate
UN1445	Barium chlorate, solid
UN1446	Barium nitrate
UN1447	Barium perchlorate, solid
UN1448	Barium permanganate
UN1449	Barium peroxide
UN1450	Bromates, inorganic, n.o.s.
UN1451	Cesium nitrate or Caesium nitrate
UN1452	Calcium chlorate
UN1453	Calcium chlorite
UN1454	Calcium nitrate
UN1455	Calcium perchlorate
UN1456	Calcium permanganate

UN1457	Calcium peroxide
UN1458	Chlorate and borate mixtures
UN1459	Chlorate and magnesium chloride mixture, solid
UN1461	Chlorates, inorganic, n.o.s.
UN1462	Chlorites, inorganic, n.o.s.
NA1463	Chromic acid, solid
UN1463	Chromium trioxide, anhydrous
UN1465	Didymium nitrate
UN1466	Ferric nitrate
UN1467	Guanidine nitrate
UN1469	Lead nitrate
UN1470	Lead perchlorate, solid *or* Lead perchlorate, solution
UN1471	Lithium hypochlorite, dry *or* Lithium hypochlorite mixtures, dry
UN1472	Lithium peroxide
UN1473	Magnesium bromate
UN1474	Magnesium nitrate
UN1475	Magnesium perchlorate
UN1476	Magnesium peroxide
UN1477	Nitrates, inorganic, n.o.s.
NA1479	Medicines, oxidizing substance, solid, n.o.s.
UN1479	Oxidizing solid, n.o.s.
UN1481	Perchlorates, inorganic, n.o.s.
UN1482	Permanganates, inorganic, n.o.s.
UN1483	Peroxides, inorganic, n.o.s.
UN1484	Potassium bromate
UN1485	Potassium chlorate
UN1486	Potassium nitrate
UN1487	Potassium nitrate and sodium nitrite mixtures
UN1488	Potassium nitrite
UN1489	Potassium perchlorate, solid *or* Potassium perchlorate, solution
UN1490	Potassium permanganate
UN1491	Potassium peroxide
UN1492	Potassium persulfate
UN1493	Silver nitrate
UN1494	Sodium bromate
UN1495	Sodium chlorate
UN1496	Sodium chlorite
UN1498	Sodium nitrate
UN1499	Sodium nitrate and potassium nitrate mixtures
UN1500	Sodium nitrite
UN1502	Sodium perchlorate
UN1503	Sodium permanganate
UN1504	Sodium peroxide
UN1505	Sodium persulfate
UN1506	Strontium chlorate
UN1507	Strontium nitrate

UN1508	Strontium perchlorate
UN1509	Strontium peroxide
UN1510	Tetranitromethane
UN1511	Urea hydrogen peroxide
UN1512	Zinc ammonium nitrite
UN1513	Zinc chlorate
UN1514	Zinc nitrate
UN1515	Zinc permanganate
UN1516	Zinc peroxide
UN1517	Zirconium picramate, wetted *with not less than 20 percent water, by mass*
UN1541	Acetone cyanohydrin, stabilized
UN1544	Alkaloids, solid, n.o.s. *or* Alkaloid salts, solid, n.o.s. *poisonous*
UN1545	Allyl isothiocyanate, stabilized
UN1546	Ammonium arsenate
UN1547	Aniline
UN1548	Aniline hydrochloride
NA1549	Antimony tribromide, solution *or* Antimony, trifluoride, solid *or* Antimony, trifluoride, solution *or* Antimony tribromide, solid
UN1549	Antimony compounds, inorganic, solid, n.o.s.
UN1550	Antimony lactate
UN1551	Antimony potassium tartrate
UN1553	Arsenic acid, liquid
UN1554	Arsenic acid, solid
UN1555	Arsenic bromide
NA1556	Methyldichloroarsine
UN1556	Arsenic compounds, liquid, n.o.s. *inorganic, including arsenates, n.o.s.; arsenites, n.o.s.; arsenic sulfides, n.o.s.; and organic compounds of arsenic, n.o.s.*
NA1557	Arsenic sulfide *or* Arsenic trisulfide
UN1557	Arsenic compounds, solid, n.o.s. *inorganic, including arsenates, n.o.s.; arsenites, n.o.s.; arsenic sulfides, n.o.s.; and organic compounds of arsenic, n.o.s.*
UN1558	Arsenic
UN1559	Arsenic pentoxide
UN1560	Arsenic trichloride
UN1561	Arsenic trioxide
UN1562	Arsenical dust
UN1564	Barium compounds, n.o.s.
UN1565	Barium cyanide
UN1566	Beryllium compounds, n.o.s.
UN1567	Beryllium, powder
UN1569	Bromoacetone
UN1570	Brucine
UN1571	Barium azide, wetted *with not less than 50 percent water, by mass*
UN1572	Cacodylic acid
UN1573	Calcium arsenate
NA1574	Calcium arsenite, solid
UN1574	Calcium arsenate and calcium arsenite, mixtures, solid

UN1575	Calcium cyanide
UN1577	Chlorodinitrobenzenes, liquid
UN1578	Chloronitrobenzene, solid
UN1579	4–Chloro–o–toluidine hydrochloride, solid
UN1580	Chloropicrin
UN1581	Chloropicrin and methyl bromide mixtures
UN1582	Chloropicrin and methyl chloride mixtures
UN1583	Chloropicrin mixtures, n.o.s.
UN1585	Copper acetoarsenite
UN1586	Copper arsenite
UN1587	Copper cyanide
UN1588	Cyanides, inorganic, solid, n.o.s.
UN1589	Cyanogen chloride, stabilized
UN1590	Dichloroanilines, liquid
UN1591	o–Dichlorobenzene
UN1593	Dichloromethane
UN1594	Diethyl sulfate
UN1595	Dimethyl sulfate
UN1596	Dinitroanilines
UN1597	Dinitrobenzenes, liquid
UN1598	Dinitro–o–cresol
UN1599	Dinitrophenel solutions
UN1600	Dinitrotoluenes, molten
UN1601	Disinfectants, solid, toxic, n.o.s.
UN1602	Dyes, liquid, toxic, n.o.s. *or* Dye intermediates, liquid, toxic, n.o.s.
UN1603	Ethyl bromoacetate
UN1604	Ethylenediamine
UN1605	Ethylene dibromide
UN1606	Ferric arsenate
UN1607	Ferric arsenite
UN1608	Ferrous arsenate
UN1611	Hexaethyl tetraphosphate, liquid *or* Hexaethyl tetraphosphate, solid
UN1612	Hexaethyl tetraphosphate and compressed gas mixtures
UN1613	Hydrocyanic acid, aqueous solutions *or* Hydrogen cyanide, aqueous solutions *with not more than 20 percent hydrogen cyanide or* Hydrocyanic acid, aqueous solutions *with less than 5 percent hydrogen cyanide*
UN1614	Hydrogen cyanide, stabilized *with less than 3 percent water and absorbed in a porous inert material*
UN1616	Lead acetate
UN1617	Lead arsenates
UN1618	Lead arsenites
UN1620	Lead cyanide
UN1621	London purple
UN1622	Magnesium arsenate
UN1623	Mercuric arsenate
UN1624	Mercuric chloride
UN1625	Mercuric nitrate

UN1626	Mercuric potassium cyanide
UN1627	Mercurous nitrate
UN1629	Mercury acetate
UN1630	Mercury ammonium chloride
UN1631	Mercury benzoate
UN1634	Mercury bromides
UN1636	Mercury cyanide
UN1637	Mercury gluconate
UN1638	Mercury iodide, solution *or* Mercury iodide, solid
UN1639	Mercury nucleate
UN1640	Mercury oleate
UN1641	Mercury oxide
UN1642	Mercury oxycyanide, desensitized
UN1643	Mercury potassium iodide
UN1644	Mercury salicylate
UN1645	Mercury sulfates
UN1646	Mercury thiocyanate
UN1647	Methyl bromide and ethylene dibromide mixtures, liquid
UN1648	Acetonitrile
UN1649	Motor fuel anti–knock mixtures
UN1650	beta–Naphthylamine
UN1651	Naphthylthiourea
UN1652	Naphthylurea
UN1653	Nickel cyanide
UN1654	Nicotine
UN1655	Nicotine compounds, solid, n.o.s. *or* Nicotine preparations, solid, n.o.s.
UN1656	Nicotine hydrochloride *or* Nicotine hydrochloride solution
UN1657	Nicotine salicylate
UN1658	Nicotine sulfate, solid *or* Nicotine sulfate, solution
UN1659	Nicotine tartrate
UN1660	Nitric oxide, compressed
UN1661	Nitroanilines *(o–; m–; p–;)*
UN1662	Nitrobenzene
UN1663	Nitophenols *(o–; m–; p–;)*
UN1664	Nitrotoluenes, liquid *(o–; m–; p–;) or* Nitrotoluenes, solid *(m–; or p–;)*
UN1665	Nitroxylenes *(o–; m–; p–')*
UN1669	Pentachloroethane
UN1670	Perchloromethyl mercaptan
UN1671	Phenol, solid
UN1672	Phenylcarbylamine chloride
UN1673	Phenylenediamines *(o–; m–; p–;)*
UN1674	Phenylmercuric acetate
UN1677	Potassium arsenate
UN1678	Potassium arsenite
UN1679	Potassium cuprocyanide
UN1680	Potassium cyanide

UN1683	Silver arsenite
UN1684	Silver cyanide
UN1685	Sodium arsenate
UN1686	Sodium arsenite, aqueous solutions
UN1687	Sodium azide
UN1688	Sodium cacodylate
UN1689	Sodium cyanide
UN1690	Sodium fluoride
UN1691	Strontium arsenite
UN1692	Strychnine or Strychnine salts
NA1693	Tear gas devices *with more than 2 percent tear gas substances, by mass*
UN1693	Tear gas substances, liquid, n.o.s.
UN1694	Bromobenzyl cyanides, *liquid*
UN1695	Chloroacetone, stabilized
UN1697	Chloroacetophenone (CN), solid
UN1698	Diphenylamine chloroarsine
UN1699	Diphenylchloroarsine, liquid
UN1700	Tear gas candles
UN1701	Xylyl bromide, liquid
UN1702	1,1,2,-Tetrachloroethane
UN1704	Tetraethyl dithiopyrophosphate
UN1707	Thallium compounds, n.o.s.
UN1708	Toluidines liquid
UN1709	2,4–Toluylenediamine, solid *or* 2,4–Toluenediamine, solid
UN1710	Trichloroethylene
UN1711	Xylidines, liquid
UN1712	Zinc arsenate *or* Zinc arsenite *or* Zinc arsenate and zinc arsenite mixtures
UN1713	Zinc cyanide
UN1714	Zinc phosphide
UN1715	Acetic anhydride
UN1716	Acetyl bromide
UN1717	Acetyl chloride
UN1718	Butyl acid phosphate
UN1719	Caustic alkali liquids, n.o.s.
UN1722	Allyl chloroformate
UN1723	Allyl iodide
UN1724	Allyltrichlorosilane, stabilized
UN1725	Aluminum bromide, anhydrous
UN1726	Aluminum chloride, anhydrous
UN1727	Ammonium hydrogendifluoride, solid
UN1728	Amyltrichlorosilane
UN1729	Anisoyl chloride
UN1730	Antimony pentachloride, liquid
UN1731	Antimony pentachloride, solutions
UN1732	Antimony pentafluoride
UN1733	Antimony trichloride, liquid *or* Antimony trichloride, solid

UN1736	Benzoyl chloride
UN1737	Benzyl bromide
UN1738	Benzyl chloride *or* Benzyl chloride unstabilized
UN1739	Benzyl chloroformate
UN1740	Hydrogendifluorides, n.o.s. *solid or* Hydrogendifluorides, n.o.s. *solutions*
UN1741	Boron trichloride
UN1742	Boron trifluoride acetic acid complex, liquid
UN1743	Boron trifluoride propionic acid complex, liquid
UN1744	Bromine or Bromine solutions
UN1745	Bromine pentafluoride
UN1746	Bromine trifluoride
UN1747	Butyltrichlorosilane
UN1748	Calcium hypochlorite, dry *or* Calcium hypochlorite mixtures dry *with more than 39 percent available chlorine (8.8 percent available oxygen)*
UN1749	Chlorine trifluoride
UN1750	Chloroacetic acid, solution
UN1751	Chloroacetic acid, solid
UN1752	Chloroacetyl chloride
UN1753	Chlorophenyltrichlorosilane
UN1754	Chlorosulfonic acid *(with or without sulfur trioxide)*
UN1755	Chromic acid solution
UN1756	Chromic fluoride, solid
UN1757	Chromic fluoride, solution
UN1758	Chromium oxychloride
NA1759	Ferrous chloride, solid
UN1759	Corrosive solids, n.o.s.
NA1760	Ferrous chloride, solution
UN1760	Corrosive liquids, n.o.s.
UN1761	Cupriethylenediamine solution
UN1762	Cyclohexenyltrichlorosilane
UN1763	Cyclohexyltrichlorosilane
UN1764	Dichloroacetic acid
UN1765	Dichloroacetyl chloride
UN1766	Dichlorophenyltrichlorosilane
UN1767	Diethyldichlorosilane
UN1768	Difluorophosphoric acid, anhydrous
UN1769	Diphenyldichlorosilane
UN1770	Diphenylmethyl bromide
UN1771	Dodecyltrichlorosilane
UN1773	Ferric chloride, anhydrous
UN1774	Fire extinguisher charges, *corrosive liquid*
UN1775	Fluoroboric acid
UN1776	Fluorophosphoric acid anhydrous
UN1777	Fluorosulfonic acid
UN1778	Fluorosilicic acid
UN1779	Formic acid

UN1780	Fumaryl chloride
UN1781	Hexadecyltrichlorosilane
UN1782	Hexafluorophosphoric acid
UN1783	Hexamethylenediamine solution
UN1784	Hexyltrichlorosilane
UN1786	Hydrofluoric acid and Sulfuric acid mixtures
UN1787	Hydriodic acid
UN1788	Hydrobromic acid, *with more than 49 percent hydrobromic acid or* Hydrobromic acid, *with not more than 49 percent hydrobromic acid*
UN1789	Hydrochloric acid
UN1790	Hydrofluoric acid, *with more than 60 percent strength or* Hydrofluoric acid, *with not more than 60 percent strength*
UN1791	Hypochlorite solutions
UN1792	Iodine monochloride
UN1793	Isopropyl acid phosphate
UN1794	Lead sulfate *with more than 3 percent free acid*
UN1796	Nitrating acid mixtures, *with more than 50 percent nitric acid or* Nitrating acid mixtures, *with not more than 50 percent nitric acid*
UN1798	Nitrohydrochloric acid
UN1799	Nonyltrichlorosilane
UN1800	Octadecyltrichlorosilane
UN1801	Octyltrichlorosilane
UN1802	Perchloric acid *with not more than 50 percent acid by mass*
UN1803	Phenolsulfonic acid, liquid
UN1804	Phenyltrichlorosilane
UN1805	Phosphoric acid
UN1806	Phosphorus pentachloride
UN1807	Phosphorus pentoxide
UN1808	Phosphorus tribromide
UN1809	Phosphorus trichloride
UN1810	Phosphorus oxychloride
UN1811	Potassium hydrogendifluoride, solid *or* Potassium hydrogendifluoride, solution
UN1812	Potassium fluoride
UN1813	Potassium hydroxide, solid
UN1814	Potassium hydroxide, solution
UN1815	Propionyl chloride
UN1816	Propyltrichlorosilane
UN1817	Pyrosulfuryl chloride
UN1818	Silicon tetrachloride
UN1819	Sodium aluminate, solution
UN1823	Sodium hydroxide, solid
UN1824	Sodium hydroxide solution
UN1825	Sodium monoxide
UN1826	Nitrating acid mixtures, spent *with more than 50 percent nitric acid or* Nitrating acid mixtures, spent *with not more than 50 percent nitric acid*
UN1827	Stannic chloride, anhydrous
UN1828	Sulfur chlorides

UN1829	Sulfur trioxide, inhibited *or* Sulfur trioxide, stabilized
UN1830	Sulfuric acid *with more than 51 percent acid*
UN1831	Sulfuric acid, *fuming with 30 percent or more free sulfur trioxide or* Sulfuric acid, fuming *with less than 30 percent free sulfur trioxide*
UN1832	Sulfuric acid, spent
UN1833	Sulfurous acid
UN1834	Sulfuryl chloride
UN1835	Tetramethylammonium hydroxide solution
UN1836	Thionyl chloride
UN1837	Thiophosphoryl chloride
UN1838	Titanium tetrachloride
UN1839	Trichloroacetic acid
UN1840	Zinc chloride, solution
UN1841	Acetaldehyde ammonia
UN1843	Ammonium dinitro–o–cresolate, solid
UN1845	Carbon dioxide, solid, *or* Dry ice
UN1846	Carbon tetrachloride
UN1847	Potassium sulfide, *hydrated with not less than 30 percent water of crystallization*
UN1848	Propionic acid
UN1849	Sodium sulfide, hydrated *with not less than 30 percent water*
UN1851	Medicine, liquid, toxic, n.o.s.
UN1854	Barium alloys, pyrophic
UN1855	Calcium, pyrophoric *or* Calcium alloys, pyrophoric
UN1857	Textile waste, wet
UN1858	Hexafluoropropylene, compressed *or* Refrigerant gas R 1216
UN1859	Silicon tetrafluoride, compressed
UN1860	Vinyl fluoride, inhibited
UN1862	Ethyl crotonate
UN1863	Fuel, aviation, turbine engine
UN1865	n–Propyl nitrate
UN1866	Resin solution, *flammable*
UN1869	Magnesium *or* Magnesium alloys *with more than 50 percent magnesium in pellets, turnings, or ribbons*
UN1870	Potassium borohydride
UN1871	Titanium hydride
UN1872	Lead dioxide
UN1873	Perchloric acid *with more than 50 percent but not more than 72 percent acid, by mass*
UN1884	Barium oxide
UN1885	Benzidine
UN1886	Benzylidene chloride
UN1887	Bromochloromethane
UN1888	Chloroform
UN1889	Cyanogen bromide
UN1891	Ethyl bromide
UN1892	Ethyldichloroarsine
UN1894	Phenylmercuric hydroxide

UN1895	Phenylmercuric nitrate
UN1897	Tetrachloroethylene
UN1898	Acetyl iodide
UN1902	Diisooctyl acid phosphate
UN1903	Disinfectants, liquid, corrosive, n.o.s.
UN1905	Selenic acid
UN1906	Sludge, acid
UN1907	Soda lime *with more than 4 percent sodium hydroxide*
UN1908	Chlorite solution
UN1910	Calcium oxide
NA1911	Diborane mixtures
UN1911	Diborane
UN1912	Methyl chloride and methylene chloride mixtures
UN1913	Neon, refrigerated liquid *(cryogenic liquid)*
UN1914	Butyl propionates
UN1915	Cyclohexanone
UN1916	2,2'–Dichlorodiethyl ether
UN1917	Ethyl acrylate, stabilized
UN1918	Isopropylbenzene
UN1919	Methyl acrylate, inhibited
UN1920	Nonanes
UN1921	Propyleneimine, inhibited
UN1922	Pyrrolidine
UN1923	Calcium dithionite *or* Calcium hydrosulfite
UN1928	Methyl magnesium bromide, in ethyl ether
UN1929	Potassium dithionite *or* Potassium hydrosulfite
UN1931	Zinc dithionite *or* Zinc hydrosulfite
UN1932	Zirconium scrap
UN1935	Cyanide solutions, n.o.s.
UN1938	Bromoacetic acid, *solution*
UN1939	Phosphorus oxybromide
UN1940	Thioglycolic acid
UN1941	Dibromodifluoromethane, R12B2
UN1942	Ammonium nitrate, *with not more than 0.2 percent of combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substance*
UN1944	Matches, safety *(book, card, or strike on box)*
UN1945	Matches, wax, Vesta
UN1950	Aerosols, *corrosive, Packing Group II or III, (each not exceeding 1 L capacity) or* Aerosols, *flammable (each not exceeding 1 L capacity) or* Aerosols, flammable, n.o.s. *(engine starting fluid) (each not exceeding 1 L capacity) or* Aerosols, *nonflammable (each not exceeding 1 L capacity) or* Aerosols, *poison, each not exceeding 1 L capacity*
UN1951	Argon, refrigerated liquid *(cryogenic liquid)*
UN1952	Ethylene oxide and carbon dioxide *mixtures with not more than 9 percent ethylene oxide*
UN1953	Compressed gas, toxic, flammable, n.o.s. *Inhalation Hazard Zone A, B, C, or D*
NA1954	Insecticide gases flammable n.o.s. *or* Refrigerant gases, n.o.s., *or* Dispersant gases, n.o.s. *or* Refrigerating machines, *containing flammable, nonpoisonous, liquified gas*
UN1954	Compressed gas, flammable, n.o.s.

NA1955	Organic phosphate, mixed with compressed gas *or* Organic phosphate compound, mixed with compressed gas *or* Organic phosphorous compound, mixed with compressed gas
UN1955	Compressed gas, toxic, n.o.s. *Inhalation Hazard Zone A, B, C, or D*
NA1956	Accumulators, pressurized, pneumatic *or* hydraulic *(containing nonflammable gas)*
UN1956	Compressed gas, n.o.s.
UN1957	Deuterium, compressed
UN1958	1,2–Dichloro–1,1,2,2–Tetrafluoroethane *or* Refrigerant gas R 114
UN1959	1,1–Difluoroethylene *or* Refrigerant gas R 1132a
NA1961	Ethane–Propane mixture, refrigerated liquid
UN1961	Ethane, refrigerated liquid
UN1962	Ethylene
UN1963	Helium, refrigerated liquid *(cyrogenic liquid)*
UN1964	Hydrocarbon gas mixture, compressed, n.o.s.
UN1965	Hydrocarbon gas mixtures, liquified, n.o.s.
UN1966	Hydrogen, refrigerated liquid *(cryogenic liquid)*
NA1967	Parathion and compressed gas mixture
UN1967	Insecticide gases, toxic, n.o.s.
UN1968	Insecticide gases, n.o.s.
UN1969	Isobutane *see also Petroleum gases, liquified*
UN1970	Krypton, refrigerated liquid *(cryogenic liquid)*
UN1971	Methane, compressed *or* Natural gas, compressed *(with high methane content)*
UN1972	Methane, refrigerated liquid *(cryogenic liquid) or* Natural gas, refrigerated liquid *(cryogenic liquid), with high methane content*
UN1973	Chlorodifluoromethane and chloropentafluoroethane mixture *or* Refrigerant gas R 502 *with fixed boiling point, with approximately 49 percent chlorodifluoromethane*
UN1974	Chlorodifluorobromomethane *or* Refrigerant gas R 12B1
UN1975	Nitric oxide and dinitrogen tetroxide mixtures *or* Nitric oxide and nitrogen dioxide mixtures
UN1976	Octafluorocyclobutane, *or* Refrigerant gas RC 318
UN1977	Nitrogen, refrigerated liquid cryogenic liquid
UN1978	Propane *see also Petroleum gases, liquified*
UN1979	Rare gases, mixtures, compressed
UN1980	Rare gases and oxygen mixtures, compressed
UN1981	Rare gases and nitrogen mixtures, compressed
UN1982	Tetrafluoromethane, compressed *or* Refrigerant gas R 14
UN1983	1–Chloro–2,2,2–trifluoroethane *or* Refrigerant gas R 133a
UN1984	Trifluoromethane *or* Refrigerant gas R 23
UN1986	Alcohols, flammable, toxic, n.o.s.
NA1987	Denatured alcohol
UN1987	Alcohols, n.o.s.
UN1988	Aldehydes, flammable, toxic, n.o.s.
UN1989	Aldehydes, n.o.s.
UN1990	Benzaldehyde
UN1991	Chloroprene, stabilized
UN1992	Flammable liquids, toxic, n.o.s.
NA1993	Diesel fuel
UN1993	Flammable liquids, n.o.s.

UN1994	Iron pentacarbonyl
NA1999	Asphalt, liquid *including road oils and cutback, bitumens*
UN1999	Tars, liquid *including road asphalt and oils, bitumen and cut backs*
UN2000	Celluloid, *in block, rods, rolls, sheets, tubes, etc., except scrap*
UN2001	Cobalt naphthenates, powder
UN2002	Celluloid, scrap
UN2003	Metal alkyls, water–reactive, n.o.s. *or* Metal aryls, water–reactive, n.o.s.
UN2004	Magnesium diamide
UN2005	Magnesium diphenyl
UN2006	Plastics, nitrocellulose–based, self–heating, n.o.s.
UN2008	Zirconium powder, dry
UN2009	Zirconium, dry, *finished sheets, strip or coiled wire*
UN2010	Magnesium hydride
UN2011	Magnesium phosphide
UN2012	Potassium phosphide
UN2013	Strontium phosphide
UN2014	Hydrogen peroxide, aqueous solutions *with more than 40 percent but not more than 60 percent hydrogen peroxide (stabilized as necessary) or* Hydrogen peroxide, aqueous solutions *with not less than 20 percent but not more than 40 percent hydrogen peroxide (stabilized as necessary)*
UN2015	Hydrogen peroxide, stabilized *or* Hydrogen peroxide aqueous solutions, stabilized *with more than 60 percent hydrogen peroxide*
UN2016	Ammunition, toxic, non–explosive, *without burster or expelling charge, non–fuzed*
UN2017	Ammunition, tear–producing, non–explosive, *without burster or expelling charge, non–fuzed*
UN2018	Chloroanilines, solid
UN2019	Chloroanilines, liquid
UN2020	Chlorophenols, solid
UN2021	Chlorophenols, liquid
UN2022	Cresylic acid
UN2023	Epichlorohydrin
UN2024	Mercury compounds, liquid, n.o.s.
UN2025	Mercury compounds, solid, n.o.s.
UN2026	Phenylmercuric compounds, n.o.s.
UN2027	Sodium arsenite, solid
UN2028	Bombs, smoke, non–explosive, *with corrosive liquid, without initiating device*
UN2029	Hydrazine, anhydrous *or* Hydrazine aqueous solutions *with more than 64 percent hydrazine, by mass*
UN2030	Hydrazine hydrate *or* Hydrazine aqueous solutions, *with not less than 37 percent but not more than 64 percent hydrazine, by mass*
UN2031	Nitric acid *other than red fuming, with more than 70 percent nitric acid or* Nitric acid *other than red fuming, with not more than 70 percent nitric acid*
UN2032	Nitric acid, red fuming
UN2033	Potassium monoxide
UN2034	Hydrogen and Methane mixtures, compressed
UN2035	1,1,1–Trifluoroethane, compressed *or* Refrigerant gas R 143a
UN2036	Xenon, compressed
UN2037	Gas cartridges *(flammable) without a release device, non–refillable or* Receptacles, small, containing gas *(gas cartridges) flammable or nonflammable, without release device, not refillable and not exceeding 1 L capacity*

UN2038	Dinitrotoluenes, liquid
UN2044	2,2–Dimethylpropane
UN2045	Isobutyraldehyde *or* Isobutyl aldehyde
UN2046	Cymenes
UN2047	Dichloropropenes
UN2048	Dicyclopentadiene
UN2049	Diethylbenzene
UN2050	Diisobutylene, isomeric compounds
UN2051	2–Dimethylaminoethanol
UN2052	Dipentene
UN2053	Methyl isobutyl carbinol
UN2054	Morpholine
UN2055	Styrene monomer, inhibited
UN2056	Tetrahydrofuran
UN2057	Tripropylene
UN2058	Valeraldehyde
UN2059	Nitrocellulose, solution, flammable *with not less than 12.6 percent nitrogen, by mass, and not more than 55 percent nitrocellulose*
UN2067	Ammonium nitrate based fertilizers
NA2069	Ammonium nitrate mixed fertilizers
UN2071	Ammonium nitrate based fertilizers
NA2072	Ammonium nitrate fertilizers
UN2073	Ammonia solution, *relative density less than 0.880 at 15° C in water, with more than 35 percent but not more than 50 percent ammonia*
UN2074	Acrylamide, solid
UN2075	Chloral, anhydrous, inhibited
UN2076	Cresols, liquid
UN2077	alpha–Naphthylamine
UN2078	Toluene diisocyanate
UN2079	Diethylenetriamine
UN2186	Hydrogen chloride, refrigerated liquid
UN2187	Carbon dioxide, refrigerated liquid
UN2188	Arsine
UN2189	Dichlorosilane
UN2190	Oxygen difluoride, compressed
UN2191	Sulfuryl fluoride
UN2192	Germane
UN2193	Hexafluoroethane, compressed *or* Refrigerant gas R 116
UN2194	Selenium hexafluoride
UN2195	Tellurium hexafluoride
UN2196	Tungsten hexafluoride
UN2197	Hydrogen iodide, anhydrous
UN2198	Phosphorus pentafluoride, compressed
UN2199	Phosphine
UN2200	Propadiene, inhibited
UN2201	Nitrous oxide, refrigerated liquid

UN2202	Hydrogen selenide, anhydrous
UN2203	Silane, compressed
UN2204	Carbonyl sulfide
UN2205	Adiponitrile
UN2206	Isocyanates, toxic, n.o.s. *or* Isocyanate solutions, toxic, n.o.s. flashpoint more than 61° C and boiling point less than 300° C
UN2208	Calcium hypochlorite mixtures, dry, *with more than 10 percent but not more than 39 percent available chlorine*
UN2209	Formaldehyde, solutions, *with not less than 25 percent formaldehyde*
UN2210	Maneb *or* Maneb preparations *with not less than 60 percent maneb*
UN2211	Polymeric beads, expandable, *evolving flammable vapor*
NA2212	Asbestos
UN2212	Blue asbestos (Crocidolite) *or* Brown asbestos (amosite, mysorite)
UN2213	Paraformaldehyde
UN2214	Phthalic anhydride *with more than .05 percent maleic anhydride*
NA2215	Maleic acid
UN2215	Maleic anhydride
UN2216	Fish meal, stabilized *or* Fish scrap, stabilized
UN2217	Seed cake *with not more than 1.5 percent oil and not more than 11 percent moisture*
UN2218	Acrylic acid, stabilized
UN2219	Allyl glycidyl ether
UN2222	Anisole
UN2224	Matches, fusee *or* Benzonitrile
UN2225	Benzene sulfonyl chloride
UN2226	Benzotrichloride
UN2227	n–Butyl methacrylate, stabilized
UN2232	2–Chloroethanal
UN2233	Chloroanisidines
UN2234	Chlorobenzotrifluorides
UN2235	Chlorobenzyl chlorides, liquid
UN2236	3–Chloro–4–methylphenyl isocyanate, liquid
UN2237	Chloronitroanilines
UN2238	Chlorotoluenes
UN2239	Chlorotoluidines, solid
UN2240	Chromosulfuric acid
UN2241	Cycloheptane
UN2242	Cycloheptene
UN2243	Cyclohexyl acetate
UN2244	Cyclopentanol
UN2245	Cyclopentanone
UN2246	Cyclopentene
UN2248	Di–n–butylamine
UN2249	Dichlorodimethyl ether, symmetrical
UN2250	Dichlorophenyl isocyanates
UN2251	Bicyclo [2,2,1] hepta–2, 5–diene, stabilized *or* 2,5–Norbornadiene, stabilized
UN2252	1,2–Dimethoxyethane

UN2253	N,N–Dimethylaniline
UN2254	Matches, fusee
UN2256	Cyclohexene
UN2257	Potassium
UN2258	1,2–Propylenediamine
UN2259	Triethylenetetramine
UN2260	Tripropylamine
UN2261	Xylenols, solid
UN2262	Dimethylcardamoyl chloride
UN2263	Dimethylcyclohexanes
UN2264	N,N-Dimethylcyclohexlamine
UN2265	N,N–Dimethylformamide
UN2266	Dimethyl–N–propylamine
UN2267	Dimethyl thiophosphoryl chloride
UN2269	3,3'–Iminodipropylamine
UN2270	Ethylamine, aqueous solution *with not less than 50 percent but not more than 70 percent ethylamine*
UN2271	Ethyl amyl ketone
UN2272	N–Ethylaniline
UN2273	2–Ethylaniline
UN2274	N–Ethyl–N–benzylaniline
UN2275	2–Ethylbutanol
UN2276	2–Ethylhexylamine
UN2277	Ethyl methacrylate, stabilized
UN2278	n–Heptane
UN2279	Hexachlorobutadiene
UN2280	Hexamethylenediamine, solid
UN2281	Hexamethylene diisocyanate
UN2282	Hexanols
UN2283	Isobutyl methacrylate, inhibited
UN2284	Isobutyronitrile
UN2285	Isocyanatobenzotrifluorides
UN2286	Pentamethylheptane
UN2287	Isoheptenes
UN2288	Isohexenes
UN2289	Isophoronediamine
UN2290	Isophorone diisocyanate
UN2291	Lead compounds, soluble, n.o.s.
UN2293	4–Methoxy–4–methylpentan–2–one
UN2294	N–Methylaniline
UN2295	Methyl chloroacetate
UN2296	Methylcyclohexane
UN2297	Methylcyclohexanone
UN2298	Methylcyclopentane
UN2299	Methyl dichloroacetate
UN2300	2–Methyl–5–ethylpyridine
UN2301	2–Methylfuran

UN2302	5–Methylhexan–2–one
UN2303	Isopropenylbenzene
UN2304	Naphthalene, molten
UN2305	Nitrobenzenesulfonic acid
UN2306	Nitrobenzotrifluorides
UN2307	3–Nitro–4–chlorobenzotrifluoride
UN2308	Nitrosylsulfuric acid
UN2309	Octadiene
UN2310	Pentane–2,4–dione
UN2311	Phenetidines
UN2312	Phenol, molten
UN2313	Picolines
UN2315	Polychlorinated biphenyls, liquid *or solid*
UN2316	Sodium cuprocyanide, solid
UN2317	Sodium cuprocyanide, solution
UN2318	Sodium hydrosulfide, *with less than 25 percent water of crystallization*
UN2319	Terpene hydrocarbons, n.o.s.
UN2320	Tetraethylenepentamine
UN2321	Trichlorbenzenes, liquid
UN2322	Trichlorobutene
UN2323	Triethyl phosphite
UN2324	Triisobutylene
UN2325	1,3,5–Trimethylbenzene
UN2326	Trimethylcyclohexylamine
UN2327	Trimethylhexamethylenediamines
UN2328	Trimethylhexamethylene diisocyanate
UN2329	Trimethyl phosphite
UN2330	Undecane
UN2331	Zinc chloride, anhydrous
UN2332	Acetaldehyde oxime
UN2333	Allyl acetate
UN2334	Allylamine
UN2335	Allyl ethyl ether
UN2336	Allyl formate
UN2337	Phenyl mercaptan
UN2338	Benzotrifluoride
UN2339	2–Bromobutane
UN2340	2–Bromoethyl ethyl ether
UN2341	1–Bromo–3–methylbutane
UN2342	Bromomethylpropanes
UN2343	2–Bromopentane
UN2344	Bromopropanes
UN2345	3–Bromopropyne
UN2346	Butanedione
UN2347	Butyl mercaptans
UN2348	Butyl acrylates, stabilized

UN2350	Butyl methyl ether
UN2351	Butyl nitrites
UN2352	Butyl vinyl ether, stabilized
UN2353	Butyryl chloride
UN2354	Chloromethyl ethyl ether
UN2356	2–Chloropropane
UN2357	Cyclohexylamine
UN2358	Cyclooctatetraene
UN2359	Diallylamine
UN2360	Diallylether
UN2361	Diisobutylamine
UN2362	1,1–Dichloroethane
UN2363	Ethyl mercaptan
UN2364	n–Propyl benzene
UN2366	Diethyl carbonate
UN2367	alpha–Methylvaleraldehyde
UN2368	alpha–Pinene
UN2370	1–Hexene
UN2371	Isopentenes
UN2372	1,2–Di–(dimethylamino)ethane
UN2373	Diethoxymethane
UN2374	3,3–Diethoxypropene
UN2375	Diethyl sulfide
UN2376	2,3–Dihydropyran
UN2377	1,1–Dimethoxyethane
UN2378	N–Butylaniline *or* 2–Dimethylaminoacetonitrile
UN2379	1,3–Dimethylbutylamine
UN2380	Dimethyldiethoxysilane
UN2381	Dimethyl disulfide
UN2382	Dimethylhydrazine, symmetrical
UN2383	Dipropylamine
UN2384	Di–n–propyl ether
UN2385	Ethyl isobutyrate
UN2386	1–Ethylpiperidine
UN2387	Fluorobenzene
UN2388	Fluorotoluenes
UN2389	Furan
UN2390	2–Iodobutane
UN2391	Iodomethylpropanes
UN2392	Iodopropanes
UN2393	Isobutyl formate
UN2394	Isobutyl propionate
UN2395	Isobutyryl chloride
UN2396	Methacrylaldehyde, inhibited
UN2397	3–Methylbutan–2–one
UN2398	Methyl tert–butyl ether

UN2399	1–Methylpiperidine
UN2400	Methyl isovalerate
UN2401	Piperidine
UN2402	Propanethiols
UN2403	Isopropenyl acetate
UN2404	Propionitrile
UN2405	Isopropyl butyrate
UN2406	Isopropyl isobutyrate
UN2407	Isopropyl chloroformate
UN2409	Isopropyl propionate
UN2410	1,2,3,6–Tetrahydropyridine
UN2411	Butyronitrile
UN2412	Tetrahydrothiophene
UN2413	Tetrapropylorthotitanate
UN2414	Thiophene
UN2416	Trimethyl borate
UN2417	Carbonyl fluoride
UN2418	Sulfur tetrafluoride
UN2419	Bromotrifluoroethylene
UN2420	Hexafluoroacetone
UN2421	Nitrogen trioxide
UN2422	Octafluorobut–2–ene *or* Refrigerant gas R 1318
UN2424	Octafluoropropane *or* Refrigerant gas R 218
UN2426	Ammonium nitrate, liquid (*hot concentrated solution)*
UN2427	Potassium chlorate, aqueous solution
UN2428	Sodium chlorate, aqueous solution
UN2429	Calcium chlorate aqueous solution
UN2430	Alkylphenols, solid, n.o.s. *(including C2–C12 homologues)*
UN2431	Anisidines
UN2432	N,N–Diethylaniline
UN2433	Chloronitrotoluenes, liquid
UN2434	Dibenzyldichlorosilane
UN2435	Ethylphenyldichlorosilane
UN2436	Thioacetic acid
UN2437	Methylphenyldichlorosilane
UN2438	Trimethylacetyl chloride
UN2439	Sodium hydrogendifluoride, solid *or* Sodium hydrogendifluoride, solution
UN2440	Stannic chloride, pentahydrate
UN2441	Titanium trichloride, pryophoric *or* Titanium trichloride mixtures, pyrophoric
UN2442	Trichloroacetyl chloride
UN2443	Vanadium oxytrichloride
UN2444	Vanadium tetrachloride
UN2445	Lithium alkyls
UN2446	Nitrocresols
UN2447	Phosphorus white, molten
NA2448	Sulfur, molten

UN2448	Sulfur, molten
UN2451	Nitrogen trifluoride, compressed
UN2452	Ethylacetylene, stabilized
UN2453	Ethyl fluoride *or* Refrigerant gas R 161
UN2454	Methyl fluoride, *or* Refrigerant gas R 41
UN2456	2–Chloropropene
UN2457	2,3–Dimethylbutane
UN2458	Hexadienes
UN2459	2–Methyl–1–butene
UN2460	2–Methyl–2–butene
UN2461	Methylpentadienes
UN2463	Aluminum hydride
UN2464	Beryllium nitrate
UN2465	Dichloroisocyanuric acid, dry *or* Dichloroisocyanuric acid salts
UN2466	Potassium superoxide
UN2468	Trichloroisocyanuric acid, dry
UN2469	Zinc bromate
UN2470	Phenylacetonitrile, liquid
UN2471	Osmium tetroxide
UN2473	Sodium arsanilate
UN2474	Thiophosgene
UN2475	Vanadium trichloride
UN2477	Methyl isothiocyanate
UN2478	Isocyanates, flammable, toxic, n.o.s. *or* Isocyanate solutions, flammable, toxic, n.o.s. *flashpoint less than 23° C*
UN2480	Methyl isocyanate
UN2481	Ethyl isocyanate
UN2482	n–Propyl isocyanate
UN2483	Isopropyl isocyanate
UN2484	tert–Butyl isocyanate
UN2485	n–Butyl isocyanate
UN2486	Isobutyl isocyanate
UN2487	Phenyl isocyanate
UN2488	Cyclohexyl isocyanate
UN2490	Dichlorodisopropyl ether
UN2491	Ethanolamine *or* Ethanolamine solutions
UN2493	Hexamethyleneimine
UN2495	Iodine pentafluoride
UN2496	Propionic anhydride
UN2498	1,2,3,6–Tetrahydrobenzaldehyde
UN2501	Tris–(1–aziridinyl)phosphine oxide, solution
UN2502	Valeryl chloride
UN2503	Zirconium tetrachloride
UN2504	Tetrabromoethane
UN2505	Ammonium fluoride
UN2506	Ammonium hydrogen sulfate

UN2507	Chloroplatinic acid, solid
UN2508	Molybdenum pentachloride
UN2509	Potassium hydrogen sulfate
UN2511	2–Chloropropionic acid
UN2512	Aminophenols *(o–; m–; p–)*
UN2513	Bromoacetyl bromide
UN2514	Bromobenzene
UN2515	Bromoform
UN2516	Carbon tetrabromide
UN2517	1–Chloro–1,1–difluoroethane *or* Refrigerant gas R 142b
UN2518	1,5,9–Cyclododecatriene
UN2520	Cyclooctadienes
UN2521	Diketene, stabilized
UN2522	2–Dimethylaminoethyl methacrylate
UN2524	Ethyl orthoformate
UN2525	Ethyl oxalate
UN2526	Furfurylamine
UN2527	Isobutyl acrylate, inhibited
UN2528	Isobutyl isobutyrate
UN2529	Isobutyric acid
UN2530	Isobutyric anhydride
UN2531	Methacrylic acid, inhibited
UN2533	Methyl trichloroacetate
UN2534	Methylchlorosilane
UN2535	4–Methylmorpholine *or* n–methylmorpholine
UN2536	Methyltetrahydrofuran
UN2538	Nitronaphthalene
UN2541	Terpinolene
UN2542	Tributylamine
UN2545	Hafnium powder, dry
UN2546	Titanium powder, dry
UN2547	Sodium superoxide
UN2548	Chlorine pentafluoride
UN2552	Hexafluoroacetone hydrate
UN2554	Methyl allyl chloride
UN2555	Nitrocellulose with water *with not less than 25 percent water, by mass*
UN2556	Nitrocellulose, with alcohol with not less than 25 percent alcohol, by mass, and with not more than 12.6 percent nitrogen, by dry mass
UN2557	Nitrocellulose, *with not more than 12.6 percent nitrogen, by dry mass, or* Nitrocellulose mixture with pigment *or* Nitrocellulose mixture with plasticizer *or* Nitrocellulose mixture with pigment and plasticizer
UN2558	Epibromohydrin
UN2560	2–Methylpentan–2–ol
UN2561	3–Methyl–1–butene
UN2564	Trichloroacetic acid, solution
UN2565	Dicyclohexylamine

UN2567	Sodium pentachlorophenate
UN2570	Cadmium compounds
UN2571	Alkylsulfuric acids
UN2572	Phenylhydrazine
UN2573	Thallium chlorate
UN2574	Tricresyl phosphate *with more than 3 percent ortho isomer*
UN2576	Phosphorus oxybromide, molten
UN2577	Phenylacetyl chloride
UN2578	Phosphorus trioxide
UN2579	Piperazine
UN2580	Aluminum bromide, solution
UN2581	Aluminum chloride, solution
UN2582	Ferric chloride, solution
UN2583	Alkyl sulfonic acids, solid *or* Aryl sulfonic acids, solid *with more than 5 percent free sulfuric acid*
UN2584	Alkyl sulfonic acids, liquid *or* Aryl sulfonic acids, liquid *with more than 5 percent free sulfuric acid*
UN2585	Alkyl sulfonic acids, solid *or* Aryl sulfonic acids, solid *with not more than 5 percent free sulfuric acid*
UN2586	Alkyl sulfonic acids, liquid *or* Aryl sulfonic acids, liquid *with not more than 5 percent free sulfuric acid*
UN2587	Benzoquinone
UN2588	Pesticides, solid, toxic, n.o.s.
UN2589	Vinyl chloroacetate
UN2590	White asbestos *(chrysotile, actinolite, anthophyllite, tremolite)*
UN2591	Xenon, refrigerated liquid *(cryogenic liquids)*
UN2599	Chlorotrifluoromethane and trifluoromethane azeotropic mixture or Refrigerant gas R 503 *with approximately 60 percent chlorotrifluoromethane*
UN2601	Cyclobutane
UN2602	Dichlorodifluoromethane and difluoroethane azeotropic mixture *or* Refrigerant gas R 500 *with approximately 74 percent dichlorodifluoromethane*
UN2603	Cycloheptatriene
UN2604	Boron trifluoride diethyl etherate
UN2605	Methoxymethyl isocyanate
UN2606	Methyl orthosilicate
UN2607	Acrolein dimer, stabilized
UN2608	Nitropropanes
UN2609	Triallyl borate
UN2610	Triallylamine
UN2611	Propylene chlorohydrin
UN2612	Methyl propyl ether
UN2614	Methallyl alcohol
UN2615	Ethyl propyl ether
UN2616	Triisopropyl borate
UN2617	Methylcyclohexanols, *flammable*
UN2618	Vinyltoluenes, stabilized
UN2619	Benzyldimethylamine
UN2620	Amyl butyrates
UN2621	Acetyl methyl carbinol
UN2622	Glycidaldehyde

UN2623	Firelighters, solid *with flammable liquid*
UN2624	Magnesium silicide
UN2626	Chloric acid aqueous solution, *with not more than 10 percent chloric acid*
UN2627	Nitrites, inorganic, n.o.s.
UN2628	Potassium fluoroacetate
UN2629	Sodium fluoroacetate
NA2630	Sodium selenite
UN2630	Selenates *or* Selenites
UN2642	Fluoroacetic acid
UN2643	Methyl bromoacetate
UN2644	Methyl iodide
UN2645	Phenacyl bromide
UN2646	Hexachlorocyclopentadiene
UN2647	Malononitrile
UN2648	1,2–Dibromobutan–3–one
UN2649	1,3–Dichloroacetone
UN2650	1,1–Dichloro–1–nitroethane
UN2651	4,4'–Diaminodiphenyl methane
UN2653	Benzyl iodide
UN2655	Potassium fluorosilicate
UN2656	Quinoline
UN2657	Selenium disulfide
UN2659	Sodium chloroacetate
UN2660	Nitrotoluidines (mono)
UN2661	Hexachloroacetone
UN2662	Hydroquinone
UN2664	Dibromomethane
UN2667	Butyltoluenes
UN2668	Chloroacetonitrile
UN2669	Chlorocresols, solution
UN2670	Cyanuric chloride
UN2671	Aminopyridines *(o–; m–; p–)*
UN2672	Ammonia solution, *relative density between 0.880 and 0.957 at 15° C in water, with more than 10 percent but not more than 35 percent ammonia*
UN2673	2–Amino–4–chlorophenol
UN2674	Sodium fluorosilicate
UN2676	Stibine
UN2677	Rubidium hydroxide solution
UN2678	Rubidium hydroxide
UN2679	Lithium hydroxide, solution
UN2680	Lithium hydroxide, monohydrate *or* Lithium hydroxide, solid
UN2681	Caesium hydroxide solution
UN2682	Caesium hydroxide
UN2683	Ammonium sulfide solution
UN2684	Diethylaminopropylamine
UN2685	N,N–Diethylethylenediamine

UN2686	2–Diethylaminoethanol
UN2687	Dicyclohexylammonium nitrate
UN2688	1–Bromo–3–chloropropane
UN2689	Glycerol alpha–monochlorohydrin
UN2690	N–n–Butyl imidazole
UN2691	Phosphorus pentabromide
UN2692	Boron tribromide
UN2693	Bisulfites, aqueous solutions, n.o.s.
UN2698	Tetrahydrophthalic anhydrides *with more than 0.05 percent of maleic anhydride*
UN2699	Trifluoroacetic acid
UN2705	1–Pentol
UN2707	Dimethyldioxanes
UN2709	Butyl benzenes
UN2710	Dipropyl ketone
UN2713	Acridine
UN2714	Zinc resinate
UN2715	Aluminum resinate
UN2716	1,4–Butynediol
UN2717	Camphor, synthetic
UN2719	Barium bromate
UN2720	Chromium nitrate
UN2721	Copper chlorate
UN2722	Lithium nitrate
UN2723	Magnesium chlorate
UN2724	Manganese nitrate
UN2725	Nickel nitrate
UN2726	Nickel nitrite
UN2727	Thallium nitrate
UN2728	Zirconium nitrate
UN2729	Hexachlorobenzene
UN2730	Nitroanisole
UN2732	Nitrobromobenzenes liquid *or* Nitrobromobenzenes solid
UN2733	Amine, flammable, corrosive, n.o.s. *or* Polyamines, flammable, corrosive, n.o.s.
UN2734	Amine, liquid, corrosive, flammable, n.o.s. *or* Polyamines, liquid, corrosive, flammable, n.o.s.
UN2735	Amines, liquid, corrosive, n.o.s. *or* Polyamines, liquid, corrosive, n.o.s.
UN2739	Butyric anhydride
UN2740	n–Propyl chloroformate
UN2741	Barium hypochlorite *with more than 22 percent available chlorine*
NA2742	sec–Butyl chloroformate *or* Isobutyl chloroformate
UN2742	Chloroformates, toxic, corrosive, flammable, n.o.s.
UN2743	n–Butyl chloroformate
UN2744	Cyclobutyl chloroformate
UN2745	Chloromethyl chloroformate
UN2746	Phenyl chloroformate
UN2747	tert–Butylcyclohexylchloroformate
UN2748	2–Ethylhexyl chloroformate

UN2749	Tetramethylsilane
UN2750	1,3–Dichloropropanol–2
UN2751	Diethylthiophosphoryl chloride
UN2752	1,2–Epoxy–3–ethoxypropane
UN2753	N–Ethylbenzyltoluidines liquid
UN2754	N–Ethyltoluidines
UN2757	Carbamate pesticides, solid, toxic
UN2758	Carbamate pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*
UN2759	Arsenical pesticides, solid, toxic
UN2760	Arsenical pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*
NA2761	Aldrin, solid *or* Dieldrin
UN2761	Organochlorine pesticides, solid, toxic
NA2762	Aldrin, liquid
UN2762	Organochlorine pesticides liquid, flammable, toxic, *flashpoint less than 23° C*
UN2763	Triazine pesticides, solid, toxic
UN2764	Triazine pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*
UN2771	Thiocarbamate pesticides, solid, toxic
UN2772	Thiocarbamate pesticide, liquid, flammable, toxic, *flashpoint less than 23° C*
UN2775	Copper based pesticides, solid, toxic
UN2776	Copper based pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*
UN2777	Mercury based pesticides, solid, toxic
UN2778	Mercury based pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*
UN2779	Substituted nitrophenol pesticides, solid, toxic
UN2780	Substituted nitrophenol pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*
UN2781	Bipyridilium pesticides, solid, toxic
UN2782	Bipyridilium pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*
UN2783	Organophosphorus pesticides, solid, toxic
UN2784	Organophosphorus pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*
UN2785	4–Thiapentanal
UN2786	Organotin pesticides, solid, toxic
UN2787	Organotin pesticides, liquid, *flammable, toxic, flashpoint less than 23° C*
UN2788	Organotin compounds, liquid, n.o.s.
UN2789	Acetic acid, glacial *or* Acetic acid solution, *with more than 80 percent acid, by mass*
UN2790	Acetic acid solution, *not less than 50 percent but not more than 80 percent acid, by mass or* Acetic acid solution, *with more than 10 percent and less than 50 percent acid, by mass*
UN2793	Ferrous metal borings *or* Ferrous metal shavings *or* Ferrous metal turnings *or* Ferrous metal cuttings *in a form liable to self–heating*
UN2794	Batteries, wet, filled with acid, *electric storage*
UN2795	Batteries, wet, filled with alkali, *electric storage*
UN2796	Sulfuric acid *with not more than 51 percent acid* or Battery fluid, acid
UN2797	Battery fluid, alkali
UN2798	Phenyl phosphorus dichloride
UN2799	Phenyl phosphorus thiodichloride
UN2800	Batteries, wet, non–spillable, *electric storage*
UN2801	Dyes, liquid, corrosive, n.o.s. *or* Dye intermediates, liquid, corrosive, n.o.s.
UN2802	Copper chloride

UN2803	Gallium
UN2805	Lithium hydride, fused solid
UN2806	Lithium nitride
UN2809	Mercury *or* Mercury *contained in manufactured articles*
UN2810	Toxic, liquids, organic, n.o.s.
NA2811	Selenium oxide
UN2811	Toxic solids, organic, n.o.s.
UN2812	Sodium aluminate, solid
UN2813	Water–reactive solid, n.o.s.
UN2814	Infectious substances, affecting humans only
UN2815	N–Aminoethylpiperazine
UN2817	Ammonium hydrogendiflouride, solution
UN2818	Ammonium polysulfide, solution
UN2819	Amyl acid phosphate
UN2820	Butyric acid
UN2821	Phenol solutions
UN2822	2–Chloropyridine
UN2823	Crotonic acid, *solid*
UN2826	Ethyl chlorothioformate
UN2829	Caproic acid
UN2830	Lithium ferrosilicon
UN2831	1,1,1–Trichloroethane
UN2834	Phosphorous acid
UN2835	Sodium aluminum hydride
UN2837	Bisulfate, aqueous solution
UN2838	Vinyl butyrate, stabilized
UN2839	Aldol
UN2840	Butyraldoxime
UN2841	Di–n–amylamine
UN2842	Nitroethane
UN2844	Calcium manganese silicon
NA2845	Ethyl phosphonous dichloride, anhydrous *pyrophoric liquid*
UN2845	Pyrophoric liquids, organic, n.o.s.
UN2846	Pyrophoric solids, organic, n.o.s.
UN2849	3–Chloropropanol–1
UN2850	Propylene tetramer
UN2851	Boron trifluoride dihydrate
UN2852	Dipicryl sulfide, wetted *with not less than 10 percent water, by mass*
UN2853	Magnesium fluorosilicate
UN2854	Ammonium fluorosilicate
UN2855	Zinc fluorosilicate
UN2856	Fluorosilicates, n.o.s.
UN2857	Refrigerating machines, *containing nonflammable, nontoxic, liquified gas or ammonia solution (UN2672)*
UN2858	Zirconium, dry, *coiled wire, finished metal sheets, strip (thinner than 254 microns but not thinner than 18 microns)*

UN2859	Ammonium metavanadate
UN2861	Ammonium polyvanadate
UN2862	Vanadium pentoxide, *non-fused form*
UN2863	Sodium ammonium vanadate
UN2864	Potassium metavanadate
UN2865	Hydroxylamine sulfate
UN2869	Titanium trichloride mixtures
UN2870	Aluminum borohydride *or* Aluminum borohydride in devices
UN2871	Antimony powder
UN2872	Dibromochloropropane
UN2873	Dibutylaminoethanol
UN2874	Furfuryl alcohol
UN2875	Hexachlorophene
UN2876	Resorcinol
UN2878	Titanium sponge granules *or* Titanium sponge powders
UN2879	Selenium oxychloride
UN2880	Calcium hypochlorite, hydrated *or* Calcium hypochlorite, hydrated mixtures, *with not less than 5.5 percent but not more than 16 percent water*
UN2881	Metal catalyst, dry
UN2900	Infectious substances, affecting animals *only*
UN2901	Bromine chloride
UN2902	Pesticides, liquid, toxic, n.o.s.
UN2903	Pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*
UN2904	Chlorophenolates, liquid *or* Phenolates, liquid
UN2905	Chlorophenolates, solid *or* Phenolates, solid
UN2907	Isosorbide dinitrate mixture *with not less than 60 percent lactose, mannose, starch or calcium hydrogen phosphate*
UN2909	Radioactive material, excepted package–articles manufactured from natural uranium or depleted uranium or natural thorium
UN2910	Radioactive material, excepted package–articles manufactured from natural or depleted uranium or natural thorium *or* Radioactive material, excepted package–empty package or empty packaging *or* Radioactive material, excepted package–instruments or articles *or* Radioactive material, excepted package–limited quantity of material
UN2911	Radioactive material, excepted package–instruments or articles
UN2912	Radioactive material, low specific activity, n.o.s. *or* Radioactive material, LSA, n.o.s.
UN2913	Radioactive material, surface contaminated object *or* Radioactive material, SCO
UN2918	Radioactive material, fissile, n.o.s.
NA2920	Dichlorobutene
UN2920	Corrosive liquids, flammable, n.o.s.
UN2921	Corrosive solids, flammable, n.o.s.
NA2922	Sodium hydrosulfide, solution
UN2922	Corrosive liquids, toxic, n.o.s.
UN2923	Corrosive solids, toxic, n.o.s.
UN2924	Flammable liquids, corrosive, n.o.s.
UN2925	Flammable solids, corrosive, organic, n.o.s.
UN2926	Flammable solids, toxic, organic, n.o.s.
NA2927	Ethyl phosphonothioic dichloride, anhydrous *or* Ethyl phosphorodichloridate

UN2927	Toxic liquids, corrosive, organic, n.o.s.
UN2928	Toxic solids, corrosive, organic, n.o.s.
UN2929	Toxic liquids, flammable, organic, n.o.s.
UN2930	Toxic solids, flammable, organic, n.o.s.
UN2931	Vanadyl sulfate
UN2933	Methyl 2–chloropropionate
UN2934	Isopropyl 2–chloropropionate
UN2935	Ethyl 2–chloropropionate
UN2936	Thiolactic acid
UN2937	alpha–Methylbenzyl alcohol
UN2940	9–Phosphabicyclonoanes or Cyclooctadiene phosphines
UN2941	Fluoroanilines
UN2942	2–Trifluoromethylaniline
UN2943	Tetrahydrofurfurylamine
UN2945	N–Methylbutylamine
UN2946	2–Amino–5–diethylaminopentane
UN2947	Isopropyl chloroacetate
UN2948	3–Trifluoromethylaniline
UN2949	Sodium hydrosulfide, *with not less than 25 percent water of crystallization*
UN2950	Magnesium granules, coated *particle size not less than 149 microns*
UN2956	5–tert–Butyl–2,4,6–trinitro–m–xylene *or* Musk xylene
UN2965	Boron trifluoride dimethyl etherate
UN2966	Thiogylcol
UN2967	Sulfamic acid
UN2968	Maneb stabilized *or* Maneb preparations, stabilized *against self–heating*
UN2969	Castor beans *or* Castor meal *or* Castor pomace *or* Castor flake
UN2974	Radioactive material, special form, n.o.s.
UN2982	Radioactive material, n.o.s.
UN2983	Ethylene oxide and propylene oxide mixtures *with not more than 30 percent ethylene oxide*
UN2984	Hydrogen peroxide, aqueous solutions *with not less than 8 percent but less than 20 percent hydrogen peroxide (stabilized as necessary)*
UN2985	Chlorosilanes, flammable, corrosive, n.o.s.
UN2986	Chlorosilanes, corrosive, flammable, n.o.s.
UN2987	Chlorosilanes, corrosive, n.o.s.
UN2988	Chlorosilanes, water–reactive, flammable, corrosive, n.o.s.
UN2989	Lead phosphite, dibasic
UN2990	Life–saving appliances, self–inflating
UN2991	Carbamate pesticide, liquid, toxic, flammable, *flashpoint not less than 23° C*
UN2992	Carbamate pesticides, liquid, toxic
UN2993	Arsenical pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*
UN2994	Arsenical pesticides, liquid, toxic
UN2995	Organochlorine pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*
UN2996	Organochlorine pesticide, liquid, toxic
UN2997	Triazine pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*
UN2998	Triazine pesticides, liquid, toxic
UN3002	Phenyl urea pesticides, liquid, toxic

UN3005	Thiocarbamate pesticides, liquid, flammable, toxic, *flashpoint not less than 23° C*
UN3006	Thiocarbamate pesticide, liquid, toxic
UN3009	Copper based pesticides, liquid, toxic, *flammable, flashpoint not less than 23° C*
UN3010	Copper based pesticides, liquid, toxic
UN3011	Mercury based pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*
UN3012	Mercury based pesticides, liquid, toxic
UN3013	Substituted nitrophenol pesticides, liquid, toxic flammable *flashpoint not less than 23° C*
UN3014	Substituted nitrophenol pesticides, liquid, toxic
UN3015	Bipyridilium pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*
UN3016	Bipyridilium pesticides, liquid, toxic
UN3017	Organophosphorus pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*
UN3018	Organophosphorus pesticides, liquid, toxic
UN3019	Organotin pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*
UN3020	Organotin pesticides, liquid, toxic
UN3021	Pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*
UN3022	1,2–Butylene oxide, stabilized
UN3023	2–Methyl–2–heptanethiol
UN3024	Coumarin derivative pesticides, liquid, flammable, toxic, *flashpoint less than 23° C*
UN3025	Coumarin derivative pesticides, liquid, toxic, flammable, *flashpoint not less than 23° C*
UN3026	Coumarin derivative pesticides, liquid, toxic
UN3027	Coumarin derivative pesticides, solid, toxic
UN3028	Batteries, dry, containing potassium hydroxide solid, *electric, storage*
UN3048	Aluminum phosphide pesticides
UN3049	Metal alkyl halides, water–reactive, n.o.s. *or* Metal aryl halides, water–reactive, n.o.s.
UN3050	Metal alkyl hydrides, water–reactive, n.o.s. *or* Metal aryl hydrides, water–reactive, n.o.s.
UN3053	Magnesium alkyls
UN3054	Cyclohexyl mercaptan
UN3055	2–(2–Aminoethoxy) ethanol
UN3056	n–Heptaldehyde
UN3057	Trifluoroacetyl chloride
UN3064	Nitroglycerin, solution in alcohol, *with more than 1 percent but not more than 5 percent nitroglycerin*
UN3065	Alcoholic beverages
UN3066	Paint or Paint related material
UN3070	Ethylene oxide and dichlorodifluoromethane mixture *with not more than 12.5 percent ethylene oxide*
UN3071	Mercaptans, liquid, toxic, flammable, n.o.s. *or* Mercaptan mixtures, liquid, toxic, flammable, n.o.s., *flashpoint not less than 23° C*
UN3072	Life–saving appliances, not self–inflating *containing dangerous goods as equipment*
UN3073	Vinylpyridines, stabilized
NA3077	Hazardous waste, solid, n.o.s. *or* Other regulated substances, solid, n.o.s.
UN3077	Environmentally hazardous substances, solid, n.o.s. (not including waste)
UN3078	Cerium, *turnings or gritty powder*
UN3079	Methacrylonitrile, inhibited
UN3080	Isocyanates, toxic, flammable, n.o.s. *or* Isocyanate solutions, toxic, flammable, n.o.s. *flashpoint not less than 23° C but not more than 6° C and boiling point less than 300° C*
NA3082	Hazardous waste, liquid, n.o.s. *or* Other regulated substances, liquid, n.o.s.
UN3082	Environmentally hazardous substances, liquid, n.o.s. *(not including waste)*

UN3083	Perchloryl fluoride
UN3084	Corrosive solids, oxidizing, n.o.s.
UN3085	Oxidizing solid, corrosive, n.o.s.
UN3086	Toxic solids, oxidizing, n.o.s.
UN3087	Oxidizing solid, toxic, n.o.s.
UN3088	Self–heating solid, organic, n.o.s.
UN3089	Metal powders, flammable, n.o.s.
UN3090	Lithium metal batteries (including lithium alloy batteries)
UN3091	Lithium metal batteries (including lithium alloy batteries) contained in, or packed with, equipment
UN3091	Lithium batteries packed with equipment
UN3092	1–Methoxy–2–propanol
UN3093	Corrosive liquids, oxidizing, n.o.s.
UN3094	Corrosive liquids, water–reactive, n.o.s.
UN3095	Corrosive solids, self–heating, n.o.s.
UN3096	Corrosive solids, water–reactive, n.o.s.
UN3097	Flammable solid, oxidizing, n.o.s.
UN3098	Oxidizing liquid, corrosive, n.o.s.
UN3099	Oxidizing liquid, toxic, n.o.s.
UN3100	Oxidizing solid, self–heating, n.o.s.
UN3101	Organic peroxide type B, liquid
UN3102	Organic peroxide type B, solid
UN3103	Organic peroxide type C, liquid
UN3104	Organic peroxide type C, solid
UN3105	Organic peroxide type D, liquid
UN3106	Organic peroxide type D, solid
UN3107	Organic peroxide type E, liquid
UN3108	Organic peroxide type E, solid
UN3109	Organic peroxide type F, liquid
UN3110	Organic peroxide type F, solid
UN3111	Organic peroxide type B, liquid, temperature controlled
UN3112	Organic peroxide type B, solid, temperature controlled
UN3113	Organic peroxide type C, liquid, temperature controlled
UN3114	Organic peroxide type C, solid, temperature controlled
UN3115	Organic peroxide type D, liquid, temperature controlled
UN3116	Organic peroxide type D, solid, temperature controlled
UN3117	Organic peroxide type E, liquid, temperature controlled
UN3118	Organic peroxide type E, solid, temperature controlled
UN3119	Organic peroxide type F, liquid, temperature controlled
UN3120	Organic peroxide type F, solid, temperature controlled
UN3121	Oxidizing solid, water–reactive, n.o.s.
UN3122	Toxic liquids, oxidizing, n.o.s.
UN3123	Toxic liquids, water–reactive, n.o.s.
UN3124	Toxic solids, self–heating, n.o.s.
UN3125	Toxic solids, water–reactive, n.o.s.
UN3126	Self–heating solid, corrosive, organic, n.o.s.
UN3127	Self–heating solid, oxidizing, n.o.s.

UN3128	Self–heating solid, toxic, organic, n.o.s.
UN3129	Water–reactive liquid, corrosive, n.o.s.
UN3130	Water–reactive liquid, toxic, n.o.s.
UN3131	Water–reactive solid, corrosive, n.o.s.
UN3132	Water–reactive solid, flammable, n.o.s.
UN3133	Water–reactive solid, oxidizing, n.o.s.
UN3134	Water–reactive solid, toxic, n.o.s.
UN3135	Water–reactive solid, self–heating, n.o.s.
UN3136	Trifluoromethane, refrigerated liquid
UN3137	Oxidizing solid, flammable, n.o.s.
UN3138	Ethylene, acetylene and propylene in mixture, refrigerated liquid *with at least 71.5 percent ethylene with not more than 22.5 percent acetylene and not more than 6 percent propylene*
UN3139	Oxidizing liquid, n.o.s.
UN3140	Alkaloids, liquid, n.o.s., or Alkaloid salts, liquid, n.o.s.
UN3141	Antimony compounds, inorganic, liquid, n.o.s.
UN3142	Disinfectants, liquid, toxic, n.o.s.
UN3143	Dyes, solid, toxic, n.o.s. *or* Dye intermediates, solid, toxic, n.o.s.
UN3144	Nicotine compounds, liquid, n.o.s. *or* Nicotine preparations, liquid, n.o.s.
UN3145	Alkylphenols, liquid, n.o.s. *(including C2–C12 homologues)*
UN3146	Organotin compounds, solid, n.o.s.
UN3147	Dyes, solid, corrosive, n.o.s. *or* Dye intermediates, solid, corrosive, n.o.s.
UN3148	Water–reactive liquid, n.o.s.
UN3149	Hydrogen peroxide and peroxyacetic acid mixtures, *stabilized with acids, water, and not more than 5 percent peroxyacetic acid*
UN3150	Devices, small, hydrocarbon gas powered *or* Hydrocarbon gas refills for small devices *with release device*
UN3151	Polyhalogenated biphenyls, liquid *or* Polyhalogenated terphenyls, liquid
UN3152	Polyhalogenated biphenyls, solid *or* Polyhalogenated terphenyls, solid
UN3153	Perfluoro(methyl vinyl ether)
UN3154	Perfluoro(ethyl vinyl ether)
UN3155	Pentachlorophenol
UN3156	Compressed gas, oxidizing, n.o.s.
UN3157	Liquified gas, oxidizing, n.o.s.
UN3158	Gas, refrigerated liquid, n.o.s. *(cryogenic liquid)*
UN3159	1,1,1,2–Tetrafluoroethane *or* Refrigerant gas R 134a
UN3160	Liquified gas, toxic, flammable, n.o.s. *Inhalation Hazard Zone A, B, C, or D*
UN3161	Liquified gas, flammable, n.o.s.
UN3162	Liquified gas, toxic, n.o.s. *Inhalation Hazard Zone A, B, C, or D*
UN3163	Liquified gas, n.o.s.
UN3164	Articles, pressurized pneumatic *or* Hydraulic *containing non–flammable gas*
UN3165	Aircraft hydraulic power unit fuel tank *(containing a mixture of anhydrous hydrazine and monomethyl hydrazine) (M86 fuel)*
UN3166	Vehicle, *flammable gas powered or* Vehicle, fuel cell, flammable gas powered. Vehicle, flammable liquid powered *or* Vehicle, fuel cell, flammable liquid powered
UN3167	Gas sample, non–pressurized, flammable, n.o.s., *not refrigerated liquid*
UN3168	Gas sample, non–pressurized, toxic, flammable, n.o.s., *not refrigerated liquid*
UN3169	Gas sample, non–pressurized, toxic, n.o.s., *not refrigerated liquid*

UN3170	Aluminum smelting by–products *or* Aluminum remelting by–products
UN3171	Battery–powered vehicle *or* Battery–powered equipment
UN3172	Toxins, extracted from living sources, liquid, n.o.s.
UN3174	Titanium disulphide
UN3175	Solids containing flammable liquid, n.o.s.
UN3176	Flammable solid, organic, molten, n.o.s.
NA3178	Smokeless powder for small arms *(100 pounds or less)*
UN3178	Flammable solid, inorganic, n.o.s.
UN3179	Flammable solid, toxic, inorganic, n.o.s.
UN3180	Flammable solid, corrosive, inorganic, n.o.s.
UN3181	Metal salts of organic compounds, flammable, n.o.s.
UN3182	Metal hydrides, flammable, n.o.s.
UN3183	Self–heating liquid, organic, n.o.s.
UN3184	Self–heating liquid, toxic, organic, n.o.s.
UN3185	Self–heating liquid, corrosive, organic, n.o.s.
UN3186	Self–heating liquid, inorganic, n.o.s.
UN3187	Self–heating liquid, toxic, inorganic, n.o.s.
UN3188	Self–heating liquid, corrosive, inorganic, n.o.s.
UN3189	Metal powder, self–heating, n.o.s.
UN3190	Self–heating solid, inorganic, n.o.s.
UN3191	Self–heating solid, toxic, inorganic, n.o.s.
UN3192	Self–heating solid, corrosive, inorganic, n.o.s.
UN3194	Pyrophoric liquid, inorganic, n.o.s.
UN3200	Pyrophoric solid, inorganic, n.o.s.
UN3203	Pyrophoric organometallic compound, water–reactive, n.o.s.
UN3205	Alkaline earth metal alcoholates, n.o.s.
UN3206	Alkali metal alcoholates, self–heating, corrosive, n.o.s.
UN3207	Organometallic compound *or* Compound solution *or* Compound dispersion, water–reactive, flammable, n.o.s.
UN3208	Metallic substances, water–reactive, n.o.s.
UN3209	Metallic substance, water–reactive, self–heating, n.o.s.
UN3210	Chlorates, inorganic, aqueous solutions, n.o.s.
UN3211	Perchlorates, inorganic, aqueous solution, n.o.s.
UN3212	Hypochlorites, inorganic, n.o.s.
UN3213	Bromates, inorganic, aqueous solution, n.o.s.
UN3214	Permanganates, inorganic, aqueous solution, n.o.s.
UN3215	Persulfates, inorganic, n.o.s.
UN3216	Persulfates, inorganic, aqueous solution, n.o.s.
UN3218	Nitrates, inorganic, aqueous solution, n.o.s.
UN3219	Nitrites, inorganic, aqueous solution, n.o.s.
UN3220	Pentafluoroethane or Refrigerant gas R 125
UN3221	Self–reactive liquid type B
UN3222	Self–reactive solid type B
UN3223	Self–reactive liquid type C
UN3224	Self–reactive solid type C
UN3225	Self–reactive liquid type D

UN3226	Self–reactive solid type D
UN3227	Self–reactive liquid type E
UN3228	Self–reactive solid type E
UN3229	Self–reactive liquid type F
UN3230	Self–reactive solid type F
UN3231	Self–reactive liquid type B, temperature controlled
UN3232	Self–reactive solid type B, temperature controlled
UN3233	Self–reactive liquid type C, temperature controlled
UN3234	Self–reactive solid type C, temperature controlled
UN3235	Self–reactive liquid type D, temperature controlled
UN3236	Self–reactive solid type D, temperature controlled
UN3237	Self–reactive liquid type E, temperature controlled
UN3238	Self–reactive solid type E, temperature controlled
UN3239	Self–reactive liquid type F, temperature controlled
UN3240	Self–reactive solid type F, temperature controlled
UN3241	2–Bromo–2–nitropropane–1,3–diol
UN3242	Azodicarbonamide
UN3243	Solids containing toxic liquid, n.o.s.
UN3244	Solids containing corrosive liquid, n.o.s.
UN3246	Methanesulfonyl chloride
UN3247	Sodium peroxoborate, anhydrous
UN3248	Medicine, liquid, flammable, toxic, n.o.s.
UN3249	Medicine, solid, toxic, n.o.s.
UN3250	Chloroacetic acid, molten
UN3251	Isosorbide–5–mononitrate
UN3252	Difluoromethane *or* Refrigerant gas R 32
UN3253	Disodium trioxosilicate
UN3254	Tributylphosphane
UN3255	tert–Butyl hypochlorite
UN3256	Elevated temperature liquid, flammable, n.o.s., *with flashpoint above 37.8° C, at or above its flashpoint*
UN3257	Elevated temperature liquid, n.o.s., *at or above 100° C and below its flashpoint (including molten metals, molten salts, etc.)*
UN3258	Elevated temperature solid, n.o.s., *at or above 240° C, see 49 CFR 173.247(h)(4)*
UN3259	Amines, solid, corrosive, n.o.s. *or* Polyamines, solid, corrosive, n.o.s.
UN3260	Corrosive solid, acidic, inorganic, n.o.s.
UN3261	Corrosive solid, acidic, organic, n.o.s.
UN3262	Corrosive solid, basic, inorganic, n.o.s.
UN3263	Corrosive solid, basic, organic, n.o.s.
UN3264	Corrosive liquid, acidic, inorganic, n.o.s.
UN3265	Corrosive liquid, acidic, organic, n.o.s.
UN3266	Corrosive liquid, basic, inorganic, n.o.s.
UN3267	Corrosive liquid, basic, organic, n.o.s.
UN3268	Air bag inflators, *or* Air bag modules, *or* Seatbelt pretensioners
UN3269	Polyester resin kit
UN3270	Nitrocellulose membrane filters

UN3271	Ethers, n.o.s.
UN3272	Esters, n.o.s.
UN3273	Nitriles, flammable, toxic, n.o.s.
UN3274	Alcoholates solution, n.o.s., *in alcohol*
UN3275	Nitriles, toxic, flammable, n.o.s.
UN3276	Nitriles, toxic, n.o.s.
UN3277	Chloroformates, toxic, corrosive, n.o.s.
UN3278	Organophosphorus compound, toxic n.o.s.
UN3279	Organophosphorus compound, toxic, flammable, n.o.s.
UN3280	Organoarsenic compound, n.o.s.
UN3281	Metal carbonyls, n.o.s.
UN3282	Organometallic compound, toxic n.o.s.
UN3283	Selenium compound, n.o.s.
UN3284	Tellurium compound, n.o.s.
UN3285	Vanadium compound, n.o.s.
UN3286	Flammable liquid, toxic, corrosive, n.o.s.
UN3287	Toxic liquid, inorganic, n.o.s.
UN3288	Toxic solid, inorganic, n.o.s.
UN3289	Toxic liquid, corrosive, inorganic, n.o.s.
UN3290	Toxic solid, corrosive, inorganic, n.o.s.
UN3291	Regulated medical waste (sharps) *or* Regulated medical waste *(non–sharps)*
UN3292	Batteries, containing sodium *or* Cells, containing sodium
UN3293	Hydrazine, aqueous solution *with not more than 37 percent hydrazine, by mass*
UN3294	Hydrogen, cyanide, solution in alcohol *with not more than 45 percent hydrogen cyanide*
UN3295	Hydrocarbons, liquid, n.o.s.
UN3296	Heptafluoropropane *or* Refrigerant gas R 227
UN3297	Ethylene oxide and chlorotetrafluoroethane mixture *with not more than 8.8 percent ethylene oxide*
UN3298	Ethylene oxide and pentafluoroethane mixture *with not more than 7.9 percent ethylene oxide*
UN3299	Ethylene oxide and tetrafluoroethane mixture *with not more than 5.6 percent ethylene oxide*
UN3300	Ethylene oxide and carbon dioxide mixtures *with more than 87 percent ethylene oxide*
UN3301	Corrosive liquids, self–heating, n.o.s.
UN3302	2–Dimethylaminoethyl acrylate
UN3303	Compressed gas, toxic, oxidizing, n.o.s. *Inhalation Hazard Zone A, B, C, or D*
UN3304	Compressed gas, toxic, corrosive, n.o.s. *Inhalation Hazard Zone A, B, C, or D*
UN3305	Compressed gas, toxic, flammable, corrosive, n.o.s. *Inhalation Hazard Zone A, B, C, or D*
UN3306	Compressed gas, toxic, oxidizing, corrosive, n.o.s. *Inhalation Hazard Zone A, B, C, or D*
UN3307	Liquified gas, toxic, oxidizing, n.o.s. *Inhalation Hazard Zone A, B, C, or D*
UN3308	Liquified gas, toxic, corrosive, n.o.s. *Inhalation Hazard Zone A, B, C, or D*
UN3309	Liquified gas, toxic, flammable, corrosive, n.o.s. *Inhalation Hazard Zone A, B, C, or D*
UN3310	Liquified gas, toxic, oxidizing, corrosive, n.o.s. *Inhalation Hazard Zone A, B, C, or D*
UN3311	Gas, refrigerated liquid, oxidizing, n.o.s. (*cryogenic liquid)*
UN3312	Gas, refrigerated liquid, flammable, n.o.s. *(cryogenic liquid)*
UN3313	Organic pigments, self–heating
UN3314	Plastic molding compound *in dough, sheet, or extruded rope form evolving flammable vapor*
UN3316	First aid kits
UN3317	2–Amino–4,6–Dinitrophenol, wetted *with not less than 20 percent water by mass*

UN3318	Ammonia solution, *relative density less than 0.880 at 15° C in water, with more than 50 percent ammonia*
UN3319	Nitroglycerin mixture, *desensitized, solid, n.o.s. with more than 2 percent but not more than 10 percent nitroglycerin, by mass*
UN3320	Sodium borohydride and sodium hydroxide solution, *with not more than 12 percent sodium borohydride and not more than 40 percent sodium hydroxide by mass*
UN3423	Tetramethylammonium hydroxide, solid
NA3334	Self–defense spray, non–pressurized
UN3334	Aviation regulated liquid, n.o.s.
UN3335	Aviation regulated solid, n.o.s.
UN3336	Mercaptans, liquid, flammable, n.o.s. *or* Mercaptan mixture, liquid, flammable, n.o.s.
UN3337	Refrigerant gas R 404A
UN3338	Refrigerant gas R 407A
UN3339	Refrigerant gas R 407B
UN3340	Refrigerant gas R 407C
UN3341	Thiourea dioxide
UN3342	Xanthates
UN3343	Nitroglycerin mixture, desensitized, liquid, flammable, n.o.s. *with not more than 30 percent nitroglycerin, by mass*
UN3344	Pentaerythrite tetranitrate mixture, desensitized, solid, n.o.s. *with more than 10 percent but not more than 20 percent PETN, by mass*
UN3345	Phenoxyacetic acid derivative pesticide, solid, toxic
UN3346	Phenoxyacetic acid derivative pesticide, liquid, flammable, toxic *flashpoint less than 23° C*
UN3347	Phenoxyacetic acid derivative pesticide, liquid, toxic, flammable, *flashpoint not less than 23° C*
UN3348	Phenoxyacetic acid derivative pesticide, liquid, toxic
UN3349	Pyrethroid pesticide, solid, toxic
UN3350	Pyrethroid pesticide, liquid, flammable, toxic, *flashpoint less than 23° C*
UN3351	Pyrethroid pesticide, liquid, flammable, toxic, *flashpoint less than 23° C*
UN3352	Pyrethroid pesticide, liquid, toxic
UN3354	Insecticide gases, flammable, n.o.s
UN3355	Insecticide gases, toxic, flammable, n.o.s., *Inhalation hazard A, B, C or D*
UN3356	Oxygen generator, chemical
UN3360	Fiber, vegetable, dry
UN3361	Chlorosilanes, toxic, corrosive, n.o.s.
UN3362	Chlorosilanes, toxic, corrosive, flammable, n.o.s.
UN3363	Dangerous Goods in Machinery *or* Dangerous Goods in Apparatus
UN3364	Trinitrophenol (picric acid), *wetted with not less than 10 percent water by mass*
UN3365	Trinitrochlorobenzene (picryl chloride), wetted, *with not less than 10 percent water by mass*
UN3366	Trinitrotoluene (TNT) wetted, with not less than 10 percent water by mass
UN3367	Trinitrobenzene, *wetted, with not less than 10 percent water, by mass*
UN3368	Trinitrobenzoic acid, wetted *with not less than 10 percent water, by mass*
UN3370	Urea nitrate, wetted *with not less than 10 percent water, by mass*
UN3373	Biological substance, Category B
UN3379	Desensitized explosive, liquid, n.o.s.
UN3380	Desensitized explosive, solid, n.o.s.
UN3381	Toxic by inhalation liquid, n.o.s. *with an LC50 lower than or equal to 200 ml/m^3 and saturated vapor concentration greater than or equal to 500 LC50*

UN3382	Toxic by inhalation liquid, n.o.s. *with an LC50 lower than or equal to 1000 ml/m^3 and saturated vapor concentration greater than or equal to 10 LC50*
UN3383	Toxic by inhalation liquid, flammable, n.o.s. *with an LC50 lower than or equal to 200 ml/m^3 and saturated vapor concentration greater than or equal to 500 LC50*
UN3384	Toxic by inhalation liquid, flammable, n.o.s. *with an LC50 lower than or equal to 1000 ml/m^3 and saturated vapor concentration greater than or equal to 10 LC50*
UN3385	Toxic by inhalation liquid, water-reactive, n.o.s. *with an LC50 lower than or equal to 200 ml/m^3 and saturated vapor concentration greater than or equal to 500 LC50*
UN3386	Toxic by inhalation liquid, water-reactive, n.o.s. *with an LC50 lower than or equal to 1000 ml/m^3 and saturated vapor concentration greater than or equal to 10 LC50*
UN3387	Toxic by inhalation liquid, oxidizing, n.o.s. *with an LC50 lower than or equal to 200 ml/m^3 and saturated vapor concentration greater than or equal to 500 LC50*
UN3388	Toxic by inhalation liquid, oxidizing, n.o.s. *with an LC50 lower than or equal to 1000 ml/m^3 and saturated vapor concentration greater than or equal to 10 LC50*
UN3389	Toxic by inhalation liquid, corrosive, n.o.s. *with an LC50 lower than or equal to 200 ml/m^3 and saturated vapor concentration greater than or equal to 500 LC50*
UN3390	Toxic by inhalation liquid, corrosive, n.o.s. *with an LC50 lower than or equal to 1000 ml/m^3 and saturated vapor concentration greater than or equal to 10 LC50*
UN3401	Alkali metal amalgam, solid
UN3402	Alkaline earth metal amalgams, solid
UN3405	Barium chlorate, solution
UN3406	Barium perchlorate, solution
UN3407	Chlorate and magnesium chloride mixture, solution
UN3409	Chloronitrobenzene, liquid
UN3410	4–Chloro–o–toluidine hydrochloride, solution
UN3416	Chloroacetophenone (CN), liquid
UN3417	Xylyl bromide, solid
UN3420	Boron trifluoride propionic acid complex, solid
UN3424	Ammonium dinitro–o–cresolate, solution
UN3425	Bromoacetic acid, solid
UN3426	Acrylamide, solution
UN3427	Chlorobenzyl chlorides, solid
UN3428	3–Chloro–4–methylphenyl isocyanate, solid
UN3429	Chlorotoluidines, liquid
UN3430	Xylenols, liquid
UN3437	Chlorocresols, solid
UN3441	Chlorodinitrobenzenes, solid
UN3442	Dichloroanilines, solid
UN3443	Dinitrobenzenes, solid
UN3448	Tear gas substances, solid, n.o.s
UN3449	Bromobenzyl cyanides, solid
UN3451	Toluidines solid
UN3452	Xylidines, solid
UN3454	Dinitrotoluenes, solid
UN3455	Cresols, solid
UN3457	Chloronitrotoluenes, solid

UN3460	N-Ethylbenzyltoluidines, solid
UN3462	Toxins, extracted from living sources, solid, n.o.s.
UN3472	Crotonic acid, liquid
UN3475	Ethanol and gasoline mixture *or* Ethanol and motor spirit mixture *or* Ethanol and petrol mixture, *with more than 10 percent ethanol*
UN3480	Lithium-ion batteries (including lithium polymer batteries)
UN3481	Lithium-ion batteries (including lithium polymer batteries) contained in, or packed with, equipment
UN3485	Calcium hypochlorite, dry, corrosive *or* Calcium hypochlorite mixtures, dry, corrosive with more than 39 percent available chlorine (8.8 percent available oxygen)
UN3486	Calcium hypochlorite mixture, dry, corrosive with more than 10 percent but not more than 39 percent available chlorine
UN3487	Calcium hypochlorite, hydrated, corrosive *or* Calcium hypochlorite, hydrated mixture, corrosive with not less than 5.5 percent but not more than 16 percent water
UN3488	Toxic by inhalation liquid, flammable, corrosive, n.o.s. *with an LC50 lower than or equal to 200 ml/m^3 and saturated vapor concentration greater than or equal to 500 LC50*
UN3489	Toxic by inhalation liquid, flammable, corrosive, n.o.s. *with an LC50 lower than or equal to 1000 ml/m^3 and saturated vapor concentration greater than or equal to 10 LC50*
UN3490	Toxic by inhalation liquid, water-reactive, flammable, n.o.s. *with an LC50 lower than or equal to 200 ml/m^3 and saturated vapor concentration greater than or equal to 500 LC50-*
UN3491	Toxic by inhalation liquid, water-reactive, flammable, n.o.s. *with an LC50 lower than or equal to 1000 ml/m^3 and saturated vapor concentration greater than or equal to 10 LC50-*
UN3496	Batteries, nickel-metal hydride see Batteries, dry. Sealed, n.o.s. *for nickel metal hydride batteris transported by modes other than vessel*
UN3500	Chemical under pressure, n.o.s.
UN3501	Chemical under pressure, flammable, n.o.s.
UN3502	Chemical under pressure, toxic, n.o.s.
UN3503	Chemical under pressure, corrosive, n.o.s.
UN3504	Chemical under pressure, flammable, toxic, n.o.s.
UN3505	Chemical under pressure, flammable, corrosive, n.o.s.
UN3506	Mercury contained in manufactured articles
UN3550	Cobalt, dihydroxide powder, *containing no less than 10% respirable particles*
ID8000	Consumer Commodity
NA9035	Gas identification set
NA9191	Chlorine dioxide, hydrate, frozen
NA9202	Carbon monoxide, refrigerated liquid *(cryogenic liquid)*
NA9206	Methyl phosphonic dichloride
NA9260	Aluminum, molten
NA9263	Chloropivaloyl chloride
NA9264	3,5–Dichloro–2,4,6–trifluoropyridine
NA9269	Trimethoxysilane

Appendix C

USPS Packaging Instructions for Mailable Hazardous Materials

These Postal Service *Packaging Instructions* are for mailable types of hazardous materials. The numeric digits 1 through 9 correspond to the appropriate hazard class. The alpha characters differentiate the separate groups of materials within a hazard class. *Packaging Instructions 10A* through *10C* provide packaging information relating to special provisions not associated with a specific hazard class. *Postal Service Packaging Instructions* are provided as follows:

Hazard Class 1: Explosives

- 1A Toy Propellant Devices
- 1B Safety Fuse

Hazard Class 2: Gases

- 2A Flammable Gases
- 2B Nonflammable Gases
- 2C Fire Extinguishers
- 2D Foodstuffs and Soap Products
- 2E Audible Fire Alarm Systems
- 2F Biological Products or Medical Preparations

Hazard Class 3: Flammable and Combustible Liquids

- 3A Flammable Liquids
- 3B Combustible Liquids
- 3C Flammable Liquid or Gas Lighters
- 3D Ethanol-based Flammable Liquids and Solids

Hazard Class 4: Flammable Solids

- 4A Flammable Solids
- 4B Safety Matches

Hazard Class 5: Oxidizing Substances, Organic Peroxides

- 5A Oxidizing Substances, Organic Peroxides

Hazard Class 6: Toxic Substances and Infectious Substances

- 6A Toxic Substances
- 6B Toxic Substances with LD_{50} Oral Toxicity of 50 mg/kg or Less
- 6C Category B Infectious Substances
- 6D Sharps Waste and Other Regulated Medical Waste

- 6E Used Health Care Products
- 6F Forensic Material
- 6G Nonregulated Infectious Materials
- 6H Exempt Human or Animal Specimens

Hazard Class 7: Radioactive Materials

- 7A Radioactive Materials

Hazard Class 8: Corrosives

- 8A Corrosives
- 8B Nonspillable Wet Battery
- 8C Manufactured Devices that Contain Small Amounts of Mercury

Hazard Class 9: Miscellaneous Hazardous Materials

- 9A Dry Ice (Carbon Dioxide Solid)
- 9B Magnetized Materials
- 9C Miscellaneous Hazardous Materials
- 9D Lithium Metal and Lithium-ion Cells and Batteries — Domestic
- 9E Lithium Metal and Lithium-ion Cells and Batteries — International and APO/FPO/DPO

Category 10: Other Packaging Instructions

- 10A Small-Quantity Provision
- 10B Excepted Quantity Provision
- 10C Cremated Remains
- 10D Adult Bird Boxes

USPS Packaging Instruction 1A

Toy Propellant Devices

The proper shipping name for a mailable toy propellant device is “model rocket motor” or “igniter.” A device that is assigned identification number NA0323 or UN0454 and classed as a Division 1.4S explosive is eligible for mailing in domestic mail via surface transportation only, provided that all requirements are met and the device is properly packaged as follows.

Proper Shipping Name and ID Number

- Model Rocket Motors, NA0323.
- Igniters, UN0454.

Required Authorization

Prior written permission must be obtained from:

DIRECTOR, Product Classification
USPS Headquarters
475 L’Enfant Plaza SW, Room 4446
Washington, DC 20260

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted only via surface transportation with prior approval. Each device must meet the specifications in 341.21(a).

Design Specifications

Mailable devices must meet each of the following conditions:

- Each device must be ignitable by electrical means only.
- Each device must contain no more than 30g (1.07 ounces) of propellant.
- Each device must produce less than 80 newton seconds of total impulse with thrust duration not less than 0.050 second.
- Each device must be constructed so that all chemical ingredients are preloaded into a cylindrical paper or similarly constructed nonmetallic tube that does not fragment into sharp, hard pieces.
- Each device must be designed so that it will not burst under normal conditions.
- Each device must be incapable of spontaneous ignition under 500° F.
- Each device must not contain any type of explosive or pyrotechnic warhead other than a small, activation-charge, parachute-recovery system.

Required Packaging

Primary Receptacle

- Each device must be packed in a securely sealed primary receptacle.
- Multiple primary receptacles are permitted within a single mailpiece.
- Each primary receptacle must be surrounded by sufficient cushioning material to absorb shock and prevent breakage.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- Each mailpiece must not exceed a total weight of 25 pounds.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- Each outer packaging must be clearly marked on the address side with “Toy Propellant Devices,” followed by the applicable proper shipping name and UN or NA number. The markings “Surface Only” or “Surface Mail Only” and “Handle With Care” must also appear on the address side of the mailpiece. A DOT hazardous materials warning label must not be affixed.
- A complete return and delivery address must be used.

Documentation

- A properly completed Shipper's Declaration for Dangerous Goods must be prepared in triplicate and affixed to the outside of the mailpiece.

Note: Full responsibility rests with the mailer to comply with Bureau of Alcohol, Tobacco, Firearms, and Explosives (BATFE) regulations before mailing. At the time of mailing, the mailer must present to the Postal Service acceptance clerk a legible photocopy of the Product Classification director's approval letter.

USPS Packaging Instruction 1B

Safety Fuse

Safety fuses consist of a core of black powder overspun with yarns, waterproofing compounds, and/or tapes. A safety fuse assigned identification number UN0105 and classed as a Division 1.4S explosive may be mailed only as permitted in 342.21(b) and when properly packaged as follows.

Proper Shipping Name

- Safety Fuse.

ID Number

- UN0105.

Required Authorization

Prior written permission must be obtained from:

DIRECTOR, PRODUCT CLASSIFICATION
USPS HEADQUARTERS
475 L'ENFANT PLAZA SW, ROOM 4446
WASHINGTON, DC 20260

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted only via surface transportation with prior approval.

Required Packaging

Primary Receptacle

- Each device must be packed in a securely sealed primary receptacle.
- Multiple primary receptacles are permitted within a single mailpiece.

Cushioning Material

- Each primary receptacle must be surrounded by sufficient cushioning material to absorb shock and prevent breakage.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- The outer packaging must be made of fiberboard, wood, or metal. Friction closures or paperboard containers are not acceptable.
- Each mailpiece must not exceed a total weight of 25 pounds.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- The outside of the mailpiece must be clearly marked on the address side with “Safety Fuse, UN0105” and “Surface Only” or “Surface Mail Only.”
- A complete return and delivery address must be used.

Documentation

- A properly completed shipping paper must be prepared in triplicate and affixed to the outside of the mailpiece.

Note: Full responsibility rests with the mailer to comply with Bureau of Alcohol, Tobacco, Firearms, and Explosives (BATFE) regulations before mailing. At the time of mailing, the mailer must present to the Postal Service acceptance clerk a legible photocopy of the Product Classification director’s approval letter.

USPS Packaging Instruction 2A

Flammable Gases

A Class 2, Division 2.1 flammable gas that qualifies as a Limited Quantity surface material is mailable provided that all applicable requirements in 342 are met and it is properly packaged as follows.

Proper Shipping Name

- Consumer Commodity.

ID Number

- Various (refer to Appendix A).

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted only via surface transportation.

Required Packaging

Primary Receptacle

- The capacity of a nonmetal primary receptacle must be 4 fluid ounces (7.22 cubic inches) or less per mailpiece.

- The capacity of a metal primary receptacle must be 33.8 fluid ounces (1-liter or 61.0 cubic inches) or less per mailpiece.
- The liquid content of the material and the gas must not completely fill the primary receptacle at 130° F.
- A DOT 2P container must be used if the internal pressure is from 140 psig to 160 psig at 130° F (55° C). A DOT 2Q container must be used if the pressure is from 161 psig to 180 psig at 130° F (55° C).
- A container with an internal pressure more than 180 psig at 130° F (55° C) is prohibited from mailing.
- Primary receptacles must have recessed valves, screw-thread caps, tap closures, or other means to prevent accidental discharge. Valves and fittings must be protected to ensure the integrity of the receptacle during transport.

Cushioning Material

- Sufficient cushioning material must surround the primary receptacle to absorb shock and prevent damage.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- Multiple primary receptacles may be securely packed within a single strong outer packaging, provided the total volume of flammable gas does not exceed 33.8 fluid ounces (1 liter) per mailpiece.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- The outer packaging must bear an approved DOT Limited Quantity surface mark designating surface transportation, prepared under 342.4*(b)*.
- A complete return and delivery address must be used.

USPS Packaging Instruction 2B

Nonflammable Gases

A Class 2, Division 2.2 nonflammable gas that qualifies as a Limited Quantity air or Limited Quantity surface material is mailable provided that all applicable requirements in 342 are met and it is properly packaged as follows.

Proper Shipping Name

- Consumer Commodity.

ID Number

- Various (refer to Appendix A).

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted with restrictions via air transportation and permitted via surface transportation.

Required Packaging

Primary Receptacle(s)

- The capacity of a nonmetal primary receptacle must be 4 fluid ounces (7.22 cubic inches) or less per mailpiece.
- The capacity of a metal primary receptacle must be 33.8 fluid ounces (1-liter or 61.0 cubic inches) or less.
- The liquid content of the material and the gas must not completely fill the primary receptacle at 130° F.
- A DOT 2P container must be used if the internal pressure is from 140 psig to 160 psig at 130° F (55° C). A DOT 2Q container must be used if the pressure is from 161 psig to 180 psig at 130° F (55° C).
- A container with an internal pressure more than 180 psig at 130° F (55° C) is prohibited from mailing.
- The primary receptacle(s) must be packaged to protect valves and fittings and to ensure integrity during transport.
- The primary receptacle(s) must have a recessed valve, screw-thread cap, tap closure, or other means to prevent accidental discharge.

Cushioning Material

- Sufficient cushioning material must surround the primary receptacle to absorb shock and prevent damage.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- Multiple primary receptacles may be securely packed within a single strong outer packaging.
- Each mailpiece must not exceed a total weight of 25 pounds.

Marking

The following labels and text markings must be placed on the address side of the mailpiece unless specified in 221.1 and 325.1.

- For air transportation, mailpieces must bear the DOT Limited Quantity air mark (with the symbol “Y” in the center), an approved DOT Class 9 hazardous material warning label, Identification Number “ID8000,” and the proper shipping name “Consumer Commodity.”
- For surface transportation, the outer packaging must bear an approved DOT Limited Quantity ground mark designating surface transportation, prepared under 342.4(c).
- A complete return and delivery address must be used.

Documentation

- For air transportation, a mailable, nonflammable gas must have a properly completed Shipper's Declaration for Dangerous Goods prepared in triplicate and affixed to the outside of the mailpiece.

USPS Packaging Instruction 2C

Fire Extinguishers

A fire extinguisher containing a Division 2.2 compressed, nonflammable gas assigned UN1044 that can qualify as a Limited Quantity surface material is mailable if it does not contain a methyl bromide gas mixture or sulfuric acid, and, if the gas is nonflammable, nonpoisonous, or noncorrosive, as specified in 49 CFR § 173.309(a). All applicable requirements in 342 must be met, and it must be properly packaged as follows.

Proper Shipping Name

- Consumer Commodity.

ID Number

- UN1044.

  Note: Fire extinguishers assigned UN0275, UN0276, UN0323, and UN0381 are prohibited from mailing. However, fire extinguishers assigned UN1774 are mailable as Class 8 corrosives subject to the limitations for corrosives in 348.

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted with restrictions via air transportation and permitted via surface transportation.

Required Packaging

Primary Receptacle

- The primary receptacle must be a DOT specification 2P or 2Q container that meets the requirements in 49 CFR § 173.309(a)(4).
- Only one primary receptacle not exceeding 1 liter (33.8 ounces) is permitted per mailpiece.

Cushioning Material

- Sufficient cushioning material must surround the primary receptacle to absorb shock and prevent damage.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- For air transportation, mailpieces must bear the DOT Limited Quantity air mark (with the symbol “Y” in the center), an approved DOT Class 9 hazardous material warning label (if applicable), Identification Number “ID8000,” and the proper shipping name “Consumer Commodity.”

- For surface transportation, the outer packaging must bear an approved DOT Limited Quantity surface mark designating surface transportation, prepared under 342.4(c).
- A complete return and delivery address must be used.

Documentation

- For air transportation, a properly completed Shipper's Declaration for Dangerous Goods must be prepared in triplicate and affixed to the outside of the mailpiece.

USPS Packaging Instruction 2D

Foodstuffs and Soap Products

Foodstuffs and soap products that are held in containers under pressure are mailable in the domestic mail via surface transportation if they qualify as a Limited Quantity surface material and all applicable requirements in 342 are met.

Proper Shipping Name

- Consumer Commodity.

ID Number

- Various (refer to Appendix A).

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted only via surface transportation.

Required Packaging

Primary Receptacle

- Acceptable only in a nonrefillable metal primary receptacle not exceeding 61.0 cubic inches (1 liter) with soluble or emulsified compressed gas.
- Liquid content of the material and the gas must not completely fill the primary receptacle at 130° F, the pressure in the primary receptacle must be 140 psig or less at 130° F, and the metal primary receptacle must be able to withstand one-and-one-half times the equilibrium pressure of the content at 130° F.

Cushioning Material

- The primary receptacle must be surrounded by sufficient cushioning material to absorb shock and prevent damage.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.

- Multiple primary receptacles may be securely packed within a single outer packaging up to a weight limit of 25 pounds (11.325 kg) per mailpiece.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- The address side of each outer packaging must be clearly marked with "Inside Containers Comply With Prescribed Regulations" per 49 CFR §173.306(b)(1).
- The outer packaging must bear an approved DOT Limited Quantity surface mark designating surface transportation, prepared under 342.4(*c*).
- A complete return and delivery address must be used.

USPS Packaging Instruction 2E

Audible Fire Alarm Systems

An audible fire alarm system powered by a compressed gas is mailable only in domestic mail via surface transportation provided that the system qualifies as a Limited Quantity surface material and all applicable requirements in 342 are met.

Proper Shipping Name

- Consumer Commodity.

ID Number

- Various (refer to Appendix A).

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted only via surface transportation.

Required Packaging

Primary Receptacle

- The content of the primary receptacle is a nonflammable, nonpoisonous, or noncorrosive gas.
- The gas is contained within a metal primary receptacle that has a capacity of 19.3 fluid ounces (35 cubic inches) or less, does not exceed a pressure of 70 psig at 70° F, and is not completely filled at 130° F.
- Each nonrefillable primary receptacle must be designed to withstand a burst pressure of not less than 4 times its charged pressure at 130° F.
- Each refillable primary receptacle must be designed to withstand a burst pressure of not less than 5 times its charged pressure at 130° F.

Cushioning Material

- The primary receptacle must be surrounded by sufficient cushioning material to absorb shock and prevent breakage.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- Multiple primary receptacles may be securely packed within a single outer packaging up to a weight limit of 25 pounds per mailpiece.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- The outer packaging must bear an approved DOT Limited Quantity surface mark designating surface transportation, prepared under 342.4(c).
- A complete return and delivery address must be used.

USPS Packaging Instruction 2F

Biological Products or Medical Preparations

A product or preparation in a nonrefillable metal primary receptacle charged with a nonflammable solution containing biological products or a medical preparation that could deteriorate by heat may be accepted in the domestic mail via surface transportation only provided that the item qualifies as a Limited Quantity surface material, and all applicable requirements in 342 are met.

Proper Shipping Name

- Consumer Commodity.

ID Number

- Various (refer to Appendix A).

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted only via surface transportation.

Packaging Requirements

Primary Receptacle

- Capacity of the primary receptacle must be 19.3 fluid ounces (35 cubic inches) or less, pressure in the primary receptacle must be 140 psig or less at 130° F, and the liquid content of product and gas must not completely fill the container at 130° F.

- If heated until the pressure in the primary receptacle is equivalent to equilibrium pressure of content at 130° F, the primary receptacle must be able to withstand leakage, distortion, or other damage or defects.
- Only one primary receptacle is permitted per mailpiece.

Cushioning Material

- The primary receptacle must be surrounded by sufficient cushioning material to absorb shock and prevent breakage.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- Multiple primary receptacles are not permitted.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- The outer packaging must bear an approved DOT Limited Quantity surface mark designating surface transportation, prepared under 342.4(*c*).
- A complete return and delivery address must be used.

USPS Packaging Instruction 3A

Flammable Liquids

A flammable liquid having a flashpoint greater than 20° F (–7° C) but less than 100° F (38° C) is mailable in domestic mail via surface transportation, if the liquid qualifies as a Limited Quantity surface material, and all applicable requirements in 343 are met. Flammable liquids having a flashpoint of 20° or less are not mailable.

Proper Shipping Name

- Consumer Commodity.

ID Number

- Various (refer to Appendix A).

Mailability

- International Mail and APO/FPO/DPO: Prohibited.
- Domestic Mail: Permitted only via surface transportation.

Required Packaging

Separate packaging requirements apply depending on the flashpoint of the flammable liquid.

For flashpoint greater than 20º F (-7º C) but not more than 73º F (23º C):

Primary Receptacle

- A metal primary receptacle must not exceed 1 quart.
- A nonmetal primary receptacle must not exceed 1 pint.
- The primary receptacle must have a screw cap (with minimum of one-and-one-half turns), soldering clips, or other means of secure closure (friction tops are not acceptable).
- Multiple primary receptacles are permitted, provided the aggregate quantity of flammable material per mailpiece does not exceed 1 quart for metal primary containers or 1 pint for nonmetal primary containers.

Absorbent and Cushioning Material

- Enough cushioning material must surround the primary receptacles to prevent breakage and absorb any potential leakage.

Secondary Packaging

- The cushioning and primary receptacles must be packed in securely sealed secondary packaging.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- The outer packaging must bear an approved DOT Limited Quantity surface mark designating surface transportation, prepared under 343.3(b).
- A complete return and delivery address must be used.

For flashpoint greater than 73º F (23º C) but less than 100º F (38º C):

Primary Receptacle

- A metal primary receptacle must not exceed 1 gallon.
- A nonmetal primary receptacle must not exceed 1 quart.
- The primary receptacle must have a screw cap (with minimum of one-and-one-half turns), soldering clips, or other means of secure closure (friction tops are not acceptable).
- Multiple primary receptacles are permitted, provided the aggregate quantity of flammable material per mailpiece does not exceed 1 gallon for metal primary containers or 1 quart for nonmetal primary containers.

Absorbent and Cushioning Material

- Enough cushioning material must surround the primary receptacles to prevent breakage and absorb any potential leakage.

Secondary Packaging

- The cushioning and primary receptacles must be packed in securely sealed secondary packaging.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s), cushioning material, and is required. Refer to 339.4.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- The outer packaging must bear an approved DOT Limited Quantity surface mark designating surface transportation, prepared under 343.3(b).
- A complete return and delivery address must be used.

For flashpoint of at least 100º F (38º C) but not more than 140º F (60º C):

- Use *Packaging Instruction 3B*.

USPS Packaging Instruction 3B

Combustible Liquids

A combustible liquid having a flashpoint of 140° F (60° C) but no more than 200° F (93° C) is mailable if it qualifies as a Limited Quantity material in the Postal Service for air or surface transportation and meets all applicable requirements in 343. A flammable liquid having a flashpoint of at least 100° F (38° C) but not more than 140° F (60° C) may be reclassed as a combustible liquid within the limits of 49 CFR §173.120(b).

Proper Shipping Name

- Consumer Commodity.

ID Number

- Various (refer to Appendix A).

Mailability

- International Mail: Prohibited.
- Domestic Mail: For flashpoints of at least 100º F (38º C), but not more than 140º F (60º C), permitted only via surface transportation. For flashpoints above 140° (60° C), permitted with restrictions via air transportation and surface transportation.

Required Packaging

Separate packaging requirements apply, depending on the flashpoint of the combustible liquid.

For flashpoint of at least 100º F (38º C) but not more than 140º F (60º C):

General

- Permitted only in domestic mail via surface transportation.

Primary Receptacle

- The capacity of a metal primary receptacle must not exceed 1 gallon.
- A nonmetal primary receptacle must not exceed 1 quart.
- Multiple primary receptacles are permitted, provided the aggregate quantity of flammable material per mailpiece does not exceed 1 gallon for metal primary receptacles or 1 quart for nonmetal primary receptacles.

Absorbent and Cushioning Material

- Enough absorbent and cushioning material must surround the primary receptacles to prevent breakage and absorb any potential leakage.

Secondary Packaging

- The cushioning and primary receptacles must be packed in a securely sealed secondary packaging.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- The outer packaging must bear an approved DOT Limited Quantity surface mark designating surface transportation, prepared under 343.3(b).
- A complete return and delivery address must be used.

For flashpoint above 140º F (60º C) but not more than 200º F (93º C):

General

- Permitted in domestic mail via air or surface transportation.

Primary Receptacle

- The capacity of the primary receptacle must not exceed 1 gallon.
- Multiple primary receptacles are permitted, provided the aggregate quantity of flammable material per mailpiece does not exceed 1 gallon.

Absorbent and Cushioning Material

- Enough absorbent and cushioning material must surround the primary receptacles to prevent breakage and absorb any potential leakage.

Secondary Packaging

- The cushioning and primary receptacles must be packed in a securely sealed secondary packaging.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- For air transportation, mailpieces must bear the DOT Limited Quantity air mark (with the symbol "Y" in the center), an approved DOT Class 9 hazardous material warning label, Identification Number "ID8000," and the proper shipping name "Consumer Commodity."
- For surface transportation, the outer packaging must bear an approved DOT Limited Quantity surface mark designating surface transportation, prepared under 343.3(b).
- A complete return and delivery address must be used.

Documentation

- For air transportation, a properly completed Shipper's Declaration for Dangerous Goods must be prepared in triplicate and affixed to the outside of the mailpiece.

For flashpoint above 200º F (93º C):

General

- The material is not regulated as a hazardous material. Therefore, it is permitted in domestic mail via air or surface transportation without restriction when properly packaged to prevent leakage during transport.

Primary Receptacle

- Each primary receptacle must be sturdy and have a secure method of closure.
- Multiple primary receptacles may be enclosed within a single mailpiece.

Absorbent and Cushioning Material

- Enough absorbent and cushioning material must surround the primary receptacle to prevent breakage and absorb all potential leakage.

Secondary Packaging

- The cushioning and primary receptacles must be packed in a securely sealed secondary packaging.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- Each mailpiece must meet the size and weight requirements in DMM 101 and 201.

USPS Packaging Instruction 3C

Flammable Liquid or Gas Lighters

A lighter equipped with an ignition element and containing fuel is classified as a Class 3 flammable liquid. A lighter containing a flammable gas is classed as a Division 2.1 flammable gas. A lighter that contains either flammable liquid or flammable gas is permitted in domestic mail via surface transportation only with prior written approval, provided all the applicable requirements of 343.23 are met.

Proper Shipping Name and ID Number

- Lighters or Lighter Refills, UN1057.

Required Authorization

- The design of the lighter must be certified by the lighter testing agency authorized by the DOT Associate Administrator for Hazardous Material Safety, per 49 CFR §173.21(i) and 173.308, and an Approval Number (LAA****) must have been issued. The vendor in whose name the authorization is being sought must submit a written request to the director Pricing and Classification Service Center (refer to 213 for contact information).

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted only via surface transportation.

Required Packaging

Primary Receptacle

- The design of the lighter must be approved by DOT (refer to “Required Authorization” above).

Cushioning Material

- Sufficient cushioning material must be used to absorb shock and protect the lighter from breakage.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- The packaging must be designed to protect the lighter's sparking mechanism from accidental ignition caused by friction or external pressure during transport.
- The outer packaging must be of sufficient strength to prevent the inner contents from breaking or bursting through.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- The address side of each mailpiece must be clearly marked with "Surface Only" or "Surface Mail Only" and "Lighters" or "Lighter Refills" followed by the LAA**** Number.
- A complete return address and delivery address must be used.

Note: At the time of the mailer's first mailing at each Postal Service facility, the mailer must present to that facility a legible photocopy of the PCSC director's approval letter.

USPS Packaging Instruction 3D

Ethanol-based Flammable Liquids and Solids

Certain limited quantities of flammable liquids and solids containing ethyl alcohol are permitted in the domestic mail via air transportation, with special authorization from the director, Product Classification, when all applicable requirements in 343.25 are met.

Proper Shipping Name

- Consumer Commodity.

ID Number

- Various (refer to Appendix A).

Mailability

- International Mail and APO/FPO/DPO: Prohibited.
- Domestic Mail: Permitted via air transportation with special authorization; or via surface transportation by following *Packaging Instruction 3A*.

Required Packaging

- Separate packaging requirements apply, dependent on the percentage of ethyl alcohol and primary receptacle used.

For content not more than 70% ethyl alcohol:

Primary Receptacle

- A nonglass primary receptacle must not exceed 16 ounces for liquids or 1 pound for solids.
- A glass primary receptacle must not exceed 8 ounces for liquids or 1/2 pound for solids.
- The primary receptacle must have a screw cap (with minimum of one and one-half turns), soldering clips, or other means of secure closure (friction tops are not acceptable).
- Multiple primary receptacles are permitted when the total aggregate mailpiece weight does not exceed 25 pounds.
- The total volume of flammable liquid in the mailpiece must not exceed 96 ounces.

- The total volume of flammable solids in the mailpiece must not exceed 16 pounds.

Absorbent Cushioning Material

- Enough cushioning material must surround the primary receptacles to prevent breakage and absorb any potential leakage.

Secondary Packaging

- The cushioning and primary receptacles must be packed in securely sealed secondary packaging.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- Each package must bear the text “Contains Air-Eligible Ethyl Alcohol — Authorization No. #” on the outer packaging in at least 14-point type.
- A complete return and delivery address must be used.

For content more than 70% ethyl alcohol:

Primary Receptacle

- The primary receptacle must not exceed 8 ounces for liquids or 1/2 pound for solids.
- The primary receptacle must have a screw cap (with minimum of one and one-half turns), soldering clips, or other means of secure closure (friction tops are not acceptable).
- Multiple primary receptacles are permitted when the total aggregate mailpiece weight does not exceed 16 pounds.
- The total volume of flammable liquid in the mailpiece must not exceed 48 ounces.
- The total volume of flammable solids in the mailpiece must not exceed 8 pounds.

Absorbent and Cushioning Material

- Enough cushioning material must surround the primary receptacles to prevent breakage and absorb any potential leakage.

Secondary Packaging

- The cushioning and primary receptacles must be packed in securely sealed secondary packaging.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- Each package must bear the text “Contains Air-Eligible Ethyl Alcohol — Authorization No. #” on the outer packaging in at least 14-point type.
- A complete return and delivery address must be used.

USPS Packaging Instruction 4A

Flammable Solids

A flammable solid that qualifies as a Limited Quantity surface material is permitted in the domestic mail via surface transportation only, provided all applicable requirements in 344 are met.

Proper Shipping Name

- Various (refer to Appendix A).

ID Number

- Various (refer to Appendix A).

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted only via surface transportation.

Required Packaging

Primary Receptacle

- The primary receptacle must have a secure seal and together with its contents must not exceed a weight of 1 pound.
- Multiple primary receptacles are permitted.

Cushioning Material

- Sufficient cushioning material must be used to absorb shock and the primary receptacle from breakage.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4
- Each mailpiece must not exceed a total weight of 25 pounds.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- The outer packaging must bear an approved DOT Limited Quantity surface mark designating surface transportation, prepared under 344.3(a).
- A complete return and delivery address must be used.

USPS Packaging Instruction 4B

Safety Matches

Safety matches (book, card, or strike-on-box) may be mailed only in domestic mail via surface transportation, provided all applicable requirements in 344 are met, including:

- They do not ignite spontaneously under conditions normally incident to transportation or when subjected for eight consecutive hours to a temperature of 200° F (93° C).
- They cannot be readily ignited by friction unless struck on their own or on a similar box, card, or book.

Note: Strike-anywhere matches assigned UN1331 and other types of matches assigned UN2254 or UN1945 are nonmailable.

Proper Shipping Name

- Matches, Safety.

ID Number

- UN1944.

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted only via surface transportation.

Required Packaging

Primary Receptacle

- Mailable types of safety matches must be tightly packed in a securely sealed primary receptacle to prevent any shifting or movement that could cause accidental ignition by rubbing against adjoining items.
- Multiple primary receptacles are permitted per mailpiece.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- The primary receptacle(s) must be snugly packed within the outer packaging.
- Each mailpiece must not exceed a total weight of 25 pounds.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- The address side of each mailpiece must be clearly marked “Surface Only” or “Surface Mail Only” and either “Book Matches”, “Card matches,” or “Strike-on-Box Matches,” as applicable.
- A complete return address and delivery address must be used.

Documentation

- A shipping paper is not required.

USPS Packaging Instruction 5A

Oxidizing Substances, Organic Peroxides

An oxidizing substance or an organic peroxide that qualifies as a Limited Quantity material within the Postal Service is permitted in the domestic mail for air and surface transportation provided that all applicable requirements in 345 are met.

Proper Shipping Name

- Various (refer to Appendix A).

ID Number

- Various (refer to Appendix A).

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted with restrictions via air transportation, or surface transportation.

Required Packaging

Primary Receptacle

- For liquids, the capacity of the primary receptacle must not exceed 1 pint (.0473 liters).
- For solids, the weight of the contents of the primary receptacle must not exceed 1 pound (.0453 kg).
- Multiple primary receptacles are permitted up to a total weight of 25 pounds per mailpiece.

Absorbent and Cushioning Material

- Enough absorbent and cushioning material must surround the primary receptacle to prevent breakage and absorb all potential leakage.

Secondary Packaging

- For liquids only, the cushioning and primary receptacle must be packed in a secondary leak-resistant packaging or material that is securely sealed.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- Each mailpiece must not exceed a total weight of 25 pounds.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- For air transportation, mailpieces must bear the DOT Limited Quantity air mark (with the symbol "Y" in the center), an approved DOT Class 5.1 or 5.2 hazardous material warning label, Identification Number and the proper shipping name.
- For surface transportation, the outer packaging must bear an approved DOT Limited Quantity surface mark designating surface transportation, prepared under 343.3(c).
- A complete return and delivery address must be used.

Documentation

- For air transportation, a mailable material must have a properly completed Shipper's Declaration for Dangerous Goods that is prepared in triplicate affixed to the outside of the mailpiece.
- The shipper's declaration must be properly completed and signed by the mailer.

USPS Packaging Instruction 6A

Toxic Substances

A Division 6.1 toxic substance that qualifies as a Limited Quantity material within the Postal Service is permitted in the domestic mail via air or surface transportation when all applicable requirements in 346 are met.

Proper Shipping Name

- Consumer Commodity.

ID Number

- Various (refer to Appendix A).

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted via air transportation or surface transportation.

Required Packaging

Primary Receptacle

- The primary receptacle must be of sufficient strength and have a secure method of closure.
- The capacity of the primary receptacle(s) per mailpiece must not exceed 8 ounces.

Absorbent and Cushioning Material

- Enough absorbent and cushioning material must surround the primary receptacle to prevent breakage and absorb all potential leakage.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- The inner receptacle and cushioning material must fit snugly within the outer packaging.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- For air transportation, mailpieces must bear the DOT Limited Quantity air mark (with the symbol “Y” in the center), an approved DOT Class 9 hazardous material warning label, Identification Number “ID8000,” and the proper shipping name “Consumer Commodity.”
- For surface transportation, the outer packaging must bear an approved DOT Limited Quantity surface mark designating surface transportation, prepared under 342.4(c).
- A complete return and delivery address must be used.

Documentation

- For air transportation, a mailable material must have a properly completed Shipper's Declaration for Dangerous Goods that is prepared in triplicate and affixed to the outside of the mailpiece.

USPS Packaging Instruction 6B

Toxic Substances with LD_{50} Oral Toxicity of 50 mg/kg or Less

A Division 6.1 toxic substance having an LD_{50} for oral toxicity of greater than 5 mg/kg but less than or equal to 50 mg/kg is mailable only between authorized parties under the specific conditions in 9(b).

Proper Shipping Name

- Various (refer to Appendix A).

ID Number

- Various (refer to Appendix A).

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted only between authorized parties via air transportation or surface transportation.

Authorized Mailers

Toxic substances that have an LD_{50} for oral toxicity of greater than 5 mg/kg but less than or equal to 50 mg/kg may be mailed between the following parties subject to these specific conditions:

- Toxic substances for scientific use (not outwardly or of their own force dangerous or injurious to life, health, or property) may be sent only between manufacturers, dealers, bona fide research or experimental scientific laboratories, and employees of federal, state, or local governments who have official use for such poisons and are designated by the agency head to receive or send such poisons.
- Poisonous drugs and medicines that are regulated as Division 6.1 materials may be sent only from the manufacturer or dealer of the drugs and medicines to licensed physicians, surgeons, dentists, pharmacists, druggists, cosmetologists, barbers, and veterinarians (18 U.S.C. § 1716).

Note: Drugs and medicines that are not regulated as Division 6.1 materials are subject to the conditions in Chapter 4.

Required Packaging

Primary Receptacle

- The total volume in the primary receptacle must not exceed 8 ounces.
- The primary receptacle must be leak-resistant and have a secure method of closure.

Absorbent and Cushioning Material

- Each primary receptacle that contains a liquid material must be completely surrounded by absorbent material capable of completely taking up all the contents in the event of breakage.
- Sufficient cushioning material must surround the primary receptacle(s) to absorb shocks and prevent damage.

Secondary Packaging

- For toxic liquids the secondary packaging must be leakproof.
- For toxic solids the secondary packaging must be sift-proof.
- The primary receptacle, absorbent material, and cushioning material must fit firmly and securely within the secondary packaging to absorb shocks and prevent breakage during normal postal handling.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- The outer packaging must be constructed of 200-pound grade corrugated fiberboard or equivalent strength.
- The secondary packaging must fit firmly and securely within the outer packaging to prevent breakage during normal postal handling.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- The proper shipping name and UN number of the toxic material must be clearly marked on the address of the mailpiece.
- Orientation markings (refer to Exhibit 223) that properly indicate the upright position of the primary receptacle(s) must be displayed on two opposite outer side walls of the outer packaging.
- Each mailpiece must bear a complete return address and delivery address. The delivery address must be placed on the top side of the mailpiece.

Documentation

- Properly completed shipping documentation (refer to 326) must be prepared in triplicate and affixed to the outside of the mailpiece.

USPS Packaging Instruction 6C

Category B Infectious Substances

Infectious substance means a material known or reasonably expected to contain a pathogen. A pathogen is a microorganism that can cause disease in humans or animals. Examples of pathogens include bacteria, viruses, fungi, and other infectious agents. An infectious substance must be assigned to one of the following two packaging categories:

- Category A: Category A infectious substances are not mailable.
- Category B: An infectious substance that does not meet the criteria for inclusion in Category A. A mailpiece known or suspected to contain a Category B infectious substance is mailable as described in 346.

Proper Shipping Name and ID Number

- Biological substance, Category B, UN3373.

Mailability

- International Mail: Mailable only when:
  - Permitted by the destination country (refer to the Individual Country Listing in the IMM).

  - They are presented by and to authorized laboratories designated in "International Mail" below in this *Packaging Instruction*.
  - They meet the definition in 346.12(a).
  - The director, Product Classification, has granted written approval.
  - Quantity limits in 622.2 are met.
- Domestic Mail: Mailable only when:
  - Intended for medical or veterinary use, research, or laboratory certification related to the public health.
  - Division 6.2 materials meet the preparation requirements for air transportation and are sent via *Priority Mail Express* or *Priority Mail*.

Required Packaging

- Must be triple-packaged, meeting the packaging requirements in 49 CFR § 173.199. Such materials must be properly packaged to withstand shocks, pressure changes, and other conditions related to ordinary handling in transit, and surrounded by absorbent material sufficient to protect the primary receptacle and to absorb the total amount of liquid should the primary receptacle leak or break.
- The completed triple packaging must be capable of successfully passing the drop test in 49 CFR §178.609(d) at a drop height of at least 1.2 meters (3.9 feet). Following the drop test, there must be no leakage from the primary receptacle, which must remain protected by absorbent material, when required, in the secondary packaging.

Primary Receptacle

- Each primary receptacle containing a liquid must be leakproof. Each primary receptacle containing a solid must be siftproof.
- A single primary receptacle must not contain more than 1 liter (34 ounces) of a liquid specimen or 4 kg (8.8 pounds) of a solid specimen.
- Two or more primary receptacles whose combined volume does not exceed 4 liters (1 gallon) for liquids or 4 kg (8.8 pounds) for solids may be enclosed in a single secondary packaging.
- Only small quantities of Class 3, Class 8, Class 9, or other materials in Packing Groups II and III may be used to stabilize or prevent degradation of the sample, provided the quantity of such materials does not exceed 30 mL (1 ounce) or 30 g (1 ounce) in each inner packaging.

Cushioning and Absorbent Material

- The space between the primary receptacle(s) and the secondary packaging at the top, bottom, and sides must contain enough material to absorb the entire contents of the primary receptacle(s) in case of breakage or leakage.
- Either the primary receptacle or the secondary packaging must be capable of withstanding, without leakage, an internal pressure that produces a pressure differential of not less than 0.95 bar, 14 psi

(95 kPa), and temperatures in the range of –40° F to 131° F (–40° C to 55° C).

Secondary Packaging

- Secondary packaging for liquids must be leakproof. Secondary packaging for solids must be sift-proof. The secondary packaging must be constructed of a durable material and have a secure sealing method.
- If the primary receptacle does not meet the pressure requirements listed above, then the secondary packaging must be designed to meet those requirements.
- The secondary packaging must be marked with the international biohazard symbol shown in Exhibit 346.321.

Note: Only cold packs or dry ice may be used as a refrigerant and must be placed outside of the secondary packaging. Interior supports must be provided to secure the secondary packaging in the original position. If a cold pack is used, the packaging must be leak-proof. If dry ice is used, the packaging must permit the release of carbon dioxide gas and conform to 49 CFR § 173.217. The primary receptacle and secondary packaging must maintain their integrity at the temperature of the refrigerant used, as well as the temperature and pressures of transport by aircraft they could be subjected to if refrigerant were lost, and sufficient absorbent material must be provided to absorb all liquids, including melted ice.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- At least one surface of the outer packaging must have a minimum dimension of 3.9 inches by 3.9 inches (100 mm by 100 mm) as required by 49 CFR § 173.199. The outer packaging must be of adequate size to accommodate all required shipping information and marks.
- A poly-type mailer bag covering may be acceptable as the outer packaging provided triple packaging is complete, the selvage edge of the wrapping is less than 2 inches, and the required markings and address information are applied both on the interior rigid box and the additional outer polybag wrapping. ***Note:*** A poly-type mailer bag is not permitted for use as an outer package in international mail.

Markings

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

As required by 49 CFR § 173.199:

- Each mailpiece (outer packaging) must be marked on the address side with the proper shipping name “Biological Substance, Category B” and have the diamond marking indicating UN3373 (refer to Exhibit 346.12). The size of the mark on each side must not be less than 50 mm (1.97

inches) in length, the width of the border lines must be at least 2 mm, and letter and numbers must be at least 6 mm (0.24 inches) high.

- The address side of the outer packaging must be marked with name and telephone number of a person who is knowledgeable about the material shipped and has comprehensive emergency response and incident mitigation information, or someone who has immediate access to the person with such knowledge and information.
- Orientation arrows are not required on these mailpieces but may be used.
- When dry ice is used, the package must include the markings “Carbon dioxide, solid” or “Dry ice,” and an indication that the material being refrigerated is used for diagnostic or treatment purposes (e.g., frozen medical specimens). As this is the only information required with respect to global transportation regulations for dry ice included with UN3373 shipments, the requirements for dry ice as set forth in USPS Packaging Instruction 9A are not applicable.

Documentation

A shipper's declaration is not required.

International Mail

- Substances identified in IMM 135.11b *must* be sent *only* by authorized laboratories to their foreign counterparts in those countries that have indicated a willingness to accept them.

Note: Countries distinguish between infectious and noninfectious (nonregulated) biological substances and may prohibit one or the other or both. Refer to “Prohibitions” in the Individual Country Listings.

- Infectious biological substances can be sent to or received by *only* the following types of institutions:
  - Laboratories of local, state, and federal government agencies.
  - Laboratories of federally licensed manufacturers of biological products derived from bacteria and viruses.
  - Laboratories affiliated with or operated by hospitals, universities, research facilities, and other teaching institutions.
  - Private laboratories licensed, certified, recognized, or approved by a public authority.

USPS Packaging Instruction 6D

Sharps Waste and Other Regulated Medical Waste

Regulated medical waste and sharps medical waste known or suspected to contain a Category A infectious substance is not mailable. Regulated medical waste and sharps medical waste as defined in 346.12(f) and 346.12(g) and containing materials classified as Category B infectious substances are permitted for mailing provided that all applicable requirements specified in 346.322 are met.

For *Packaging Instructions* for medical professional packages, refer to 346.322(b–d).

Proper Shipping Name and ID Number

- Regulated Medical Waste, UN3291.
- Sharps Medical Waste, UN3291.

Required Authorization

- Each vendor of a complete regulated medical waste or sharps waste mailing container system (including all component parts required to safely mail such waste to a storage or disposal facility) must obtain authorization from the Postal Service prior to mailing. The vendor in whose name the authorization is being sought must submit a written request to the director Product Classification, Postal Service Headquarters (refer to 214 for contact information).

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted only using *USPS Returns Service* via *USPS Ground Advantage* service option.

Required Packaging

General

- Only regulated medical waste and sharps medical waste mailing container systems approved by Postal Service Headquarters may be mailed. Approved packaging must meet all requirements in 346.322(b), including a leakproof primary receptacle (also puncture-resistant for sharps medical waste), a water-resistant secondary containment system, enough material within the primary receptacle to absorb and retain three times the total liquid allowed within the primary receptacle, and a step-by-step instruction sheet that details the sequence and method of container assembly prior to mailing.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- Each primary receptacle and outer packaging must bear a label, which cannot be detached intact, showing the name of the vendor, the USPS Authorization Number, and the container ID number. Place the label on the top or on a side of the packaging.
- The primary receptacle(s) and the outer packaging must bear the international biohazard symbol in black with either a fluorescent orange or fluorescent red background as shown in Exhibit 346.321. The symbol on the outer packaging must be at least 3 inches high and 4 inches wide.
- The outer packaging must bear a properly prepared *USPS Returns Service* label. The *USPS Returns Service* permit must be held in the same name as that of the authorized medical waste vendor.

- The outer packaging must be marked on two opposite side walls with the package orientation marking in 49 CFR § 173.312 to identify the proper upright position of the mailpiece during handling.
- Mailpieces containing regulated medical waste or sharps waste must be marked on the address side with the correct UN number and proper shipping name (e.g., “Regulated Medical Waste, UN3291” or “Regulated Medical Waste-Sharps, UN3291”).

Documentation

- Each mailpiece must have a four-part waste shipping paper. The shipping paper must be affixed to the outside of the mailpiece in an envelope or similar carrier that can be easily opened and resealed to allow review of the document. The shipping paper must comply with all applicable requirements imposed by the laws of the state from which the container system is mailed. At a minimum, the information in Exhibit 346.322 must be on the shipping paper.

USPS Packaging Instruction 6E

Used Health Care Products

“Used health care product” means a medical, diagnostic, or research device or piece of equipment, or a personal care product used by consumers, medical professionals, or pharmaceutical providers, that does not meet the definition of a diagnostic specimen, biological product, regulated medical waste, or sharps waste, is contaminated with potentially infectious body fluids or materials, and is not decontaminated or disinfected to remove or mitigate the infectious hazard prior to transport.

Proper Shipping Name

- Not applicable.

Mailability

- International Mail: Prohibited.
- Domestic Mail: A used health care product:
  - Known or reasonably suspected to contain a Category A material is not mailable.
  - Not suspected to contain infectious material or that is known, or suspected, to contain Category B infectious substances, and is being returned to the manufacturer or manufacturer's designee, is mailable with air transportation.

Required Packaging

- Each used health care product must be drained of liquid to the extent possible and placed in a watertight primary receptacle designed and constructed to ensure that it remains intact under normal conditions of transport. For a used health care product capable of cutting or penetrating skin or packaging material, the primary receptacle must be

capable of retaining the product without puncture of the packaging under normal conditions of transport.

Primary Receptacle

- The primary receptacle must be capable of retaining the product without puncture of the packaging under normal conditions of transport.
- Each primary receptacle must be placed inside a watertight secondary packaging designed and constructed to ensure that it remains intact under normal conditions of transport.
- The primary receptacle must be marked with the international biohazard symbol shown in Exhibit 346.321.

Secondary Packaging

- Each primary receptacle must be placed inside a watertight secondary packaging designed and constructed to ensure that it remains intact under normal conditions of transport.
- The secondary packaging must also be marked with the international biohazard symbol shown in Exhibit 346.321.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- The secondary packaging must be placed inside an outer packaging with sufficient cushioning material to prevent movement between the secondary packaging and the outer packaging. An itemized list of the contents of the primary receptacle and information concerning possible contamination with a Division 6.2 material, including its possible location on the product, must be placed between the secondary packaging and the outer packaging.

Marking/Documentation

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- A shipping paper and content marking on the outer packaging are not required.

USPS Packaging Instruction 6F

Forensic Material

Forensic material containing a biological material, such as tissue, body fluid, excreta, or secreta, and sent on behalf of a federal, state, local, or Indian tribal government agency must be packaged under 346.325 when it is not known or suspected to contain a Category A or Category B infectious substance. Forensic material known or suspected to contain a Category A infectious substance is not mailable. Forensic material known or suspected to contain a Category B infectious substance as identified in 346.321 is

mailable via air transportation, when triple-packaged in a primary receptacle, secondary packaging, and a rigid outer packaging.

Proper Shipping Name

- Not applicable.

Mailability

- International Mail: Mailable only when:
  - The conditions in 622.2 are met.
  - They are permitted by the destination country. (Refer to the Individual Country Listing in the IMM.)
  - They are presented by and to authorized laboratories designated in "International Mail" below in this Packaging Instruction.
  - They meet the Category B infectious substance definition in 346.12(a).
  - The director, Product Classification, has granted written approval.
  - They are triple-packaged (refer to below), meeting the packaging requirements in 49 CFR § 173.199.
- Domestic Mail: Mailable only when:
  - Intended for medical or veterinary use, research, or laboratory certification related to the public health.
  - Division 6.2 materials meet the preparation requirements for air transportation and are sent via *Priority Mail Express* or *Priority Mail*.

Required Packaging

- Must be triple-packaged, meeting the packaging requirements in 49 CFR § 173.199. Such materials must be properly packaged to withstand shocks, pressure changes, and other conditions related to ordinary handling in transit, and surrounded by absorbent material sufficient to protect the primary receptacle and to absorb the total amount of liquid should the primary receptacle leak or break.

Primary Receptacle

- Each primary receptacle containing a liquid must be leakproof. Each primary receptacle containing a solid must be sift-proof.
- A single primary receptacle must not contain more than 1 liter (34 ounces) of a liquid specimen or 4 kg (8.8 pounds) of a solid specimen.
- Two or more primary receptacles whose combined volume does not exceed 4 liters (1 gallon) for liquids or 4 kg (8.8 pounds) for solids may be enclosed in a single secondary packaging.

Cushioning and Absorbent Material

- The space between the primary receptacle(s) and the secondary packaging at the top, bottom, and sides must contain enough material to absorb the entire contents of the primary receptacle(s) in case of breakage or leakage.

- Either the primary receptacle or the secondary packaging must be capable of withstanding, without leakage, an internal pressure that produces a pressure differential of not less than 0.95 bar, 14 psi (95 kPa), and temperatures in the range of –40° F to 131° F (–40° C to 55° C).

Secondary Packaging

- Secondary packaging for liquids must be leakproof. Secondary packaging for solids must be sift-proof. The secondary packaging must be constructed of a durable material and have a secure sealing method.
- If the primary receptacle does not meet the pressure requirements listed above, then the secondary packaging must be designed to meet those requirements.
- The secondary packaging must be marked with the international biohazard symbol shown in Exhibit 346.321.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- At least one surface of the outer packaging must have a minimum dimension of 3.9 inches by 3.9 inches (100 mm by 100 mm) as required by 49 CFR § 173.199.

Marking/Documentation

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- Category B infectious substances not present:
  - A shipping paper and content markings on the outer packaging are not required.
  - Each mailpiece must have a complete delivery and return address.
- Category B infectious substances are present:
  - Each mailpiece (outer packaging) must be marked with the proper shipping name “Biological Substance, Category B” and have the diamond marking indicating UN3373 (refer to Exhibit 346.12).
  - The address side of the outer packaging must be marked with name and telephone number of a person who is knowledgeable about the material shipped and has comprehensive emergency response and incident mitigation information, or someone who has immediate access to the person with such knowledge and information.
  - Orientation arrows are not required on these mailpieces but may be used.

International Mail

Substances identified in IMM 135.11b *must* be sent *only* by authorized laboratories to their foreign counterparts in those countries that have indicated a willingness to accept them.

Note: Countries distinguish between infectious and noninfectious (nonregulated) biological substances and may prohibit one or the other or both. Refer to "Prohibitions" in the Individual Country Listings.

- Infectious biological substances can be sent to or received by *only* the following types of institutions:
  - Laboratories of local, state, and federal government agencies.
  - Laboratories of federally licensed manufacturers of biological products derived from bacteria and viruses.
  - Laboratories affiliated with or operated by hospitals, universities, research facilities, and other teaching institutions.
  - Private laboratories licensed, certified, recognized, or approved by a public authority.

USPS Packaging Instruction 6G

Nonregulated Infectious Materials

Nonregulated materials as defined in 346.325 are not subject to regulation as hazardous materials but must be properly packaged when presented for mailing. Nonregulated materials include biological product, blood collected for the purpose of blood transfusion, blood products and blood components collected for the purpose of transfusion, dried blood spots, forensic material not expected of containing a Category A or Category B infectious substance and transported on behalf of a government agency. For a complete description of nonregulated materials, refer to 346.325.

Proper Shipping Name and ID Number

- Not applicable (not regulated under 49 CFR as a hazardous material in domestic commerce).

Mailability

- International Mail: Nonregulated materials identified in 346.325 are mailable but must be properly packaged as indicated in 346.326 when presented for mailing.
- Domestic Mail: Permitted via air or surface transportation when packaging requirements are met.

Required Packaging

Liquid Patient Specimens and Biological Products

Exceeding 50 ml

- Material must be packaged in a securely sealed primary receptacle. A single primary receptacle must not contain more than 500 ml of specimen. Two or more primary receptacles whose combined volume does not exceed 500 ml may be enclosed in a single secondary packaging. The secondary packaging must be securely and snugly enclosed in a fiberboard box or container of equivalent strength that serves as the outer packaging.

Not Exceeding 50 ml

- A patient specimen or biological product consisting of 50 ml or less per mailpiece must be packaged in a securely sealed primary receptacle. Two or more primary receptacles whose combined volume does not exceed 50 ml may be enclosed within a single mailpiece. The secondary packaging can also serve as the outer packaging. In that case, the biohazard symbol must appear on the inner packaging or on the primary receptacle.

Absorbent and Cushioning Material

- Sufficient absorbent material and cushioning material to withstand shock and pressure changes must surround the primary receptacle(s), or be otherwise configured to take up the entire liquid contents in case of leakage.

Secondary Packaging

- The secondary packaging must be securely sealed, and it may serve as the outer packaging if it has sufficient strength to withstand ordinary postal processing.
- The primary receptacle(s) and the absorbent cushioning must be enclosed in a secondary packaging with a leakproof barrier that can prevent failure of the secondary packaging if the primary receptacle(s) should leak during transport.
- The secondary packaging must be marked with the international biohazard symbol shown in Exhibit 346.321, except when the secondary packaging also serves as the outer packaging. In that case, the biohazard symbol must appear on the inner packaging or on the primary receptacle.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- A fiberboard box or container of equivalent strength that serves as the outer packaging.
- When the secondary packaging also serves as the outer packaging, the biohazard symbol must appear on the inner packaging or on the primary receptacle.

Solid or Dry Specimen

Primary Receptacle

- The primary receptacle (and cushioning material, if required) must be enclosed in a secondary packaging.

Secondary Packaging

- The secondary packaging must be sift-proof to contain the contents should the primary receptacle(s) leak.
- The secondary packaging must be marked with the international biohazard symbol (refer to Exhibit 346.321).

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- The secondary packaging may serve as the outer packaging if it has sufficient strength to withstand ordinary postal processing.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- No other identifying marks are allowed on the outside of the box.

Note: Shipping documentation (refer to 326) is not required for clinical specimens that do not contain infectious substances.

USPS Packaging Instruction 6H

Exempt Human or Animal Specimens

Exempt human or animal specimens as defined in 346.12(d) are not subject to regulation as hazardous materials, but when presented for mailing, they must be properly packaged. Refer to 346.327.

"Exempt human or animal specimen" means a human or animal sample (including, but not limited to, secreta, excreta, blood and its components, tissue and tissue fluids, and body parts) transported for routine testing not related to the diagnosis of an infectious disease.

Typically, exempt human specimens are specimens for which there is a low probability that the sample is infectious, such as specimens for drug or alcohol testing; cholesterol testing; blood glucose level testing; prostate-specific antigens (PSA) testing; testing to monitor heart, kidney, or liver function; pregnancy testing; and testing for diagnosis of noninfectious diseases such as cancer biopsies.

Proper Shipping Name

- Not applicable (not regulated under 49 CFR as a hazardous material in domestic commerce).

Mailability

- International Mail: Mailable. They are not subject to regulation as hazardous materials but are required to be sent between eligible institutions and when presented for mailing, they must be prepared following 346.327, 622.2, and as outlined below.
- Domestic Mail: Permitted via air or surface transportation when packaging requirements are met.

Required Packaging

Primary Receptacle

- Material must be triple-packaged in leakproof (for liquids) or sift-proof (for solids) primary receptacles.
- A single primary receptacle must not contain more than 500 ml of a liquid specimen or 500 grams of a solid specimen.
- Two or more primary receptacles whose combined volume does not exceed 500 ml (for liquids) or 500 grams (for solids) may be enclosed in a single secondary packaging.
- Sufficient cushioning and absorbent materials must surround each primary receptacle containing liquid.

Secondary Packaging

- The secondary packaging cannot serve as the outer packaging.
- The secondary packaging must be marked with the international biohazard symbol shown in Exhibit 346.321.

Outer Packaging

- The primary and secondary packaging must be enclosed within rigid outer packaging (see 339.4).
- At least one side of the outer packaging must measure a minimum of 3.9 inches by 3.9 inches (100 millimeters × 100 millimeters).

Marking/Documentation

- Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.
- The outer packaging must be marked on the address side with "Exempt Human Specimen" or "Exempt Animal Specimen," as appropriate.
- Shipping documentation is not required.

USPS Packaging Instruction 7A

Radioactive Materials

Radioactive materials are prohibited in international mail and domestic mail if required to bear the DOT Radioactive White-I, Radioactive Yellow-II, Radioactive Yellow-III label, or the Fissile label (49 CFR § 172.436, 172.438, or 172.440, respectively) or if it contains quantities of radioactive material in excess of those authorized in 347. Radioactive materials are prohibited in domestic mail via air transportation. For international mail, the standards in IMM 135.5 apply.

The only categories of radioactive material that are mailable are those that can be classified as a “limited quantity” under 49 CFR and that meet the limits in Exhibit 347.23: excepted instruments, articles, and devices, and excepted articles containing natural uranium and thorium. Accurate

documentation of the activity limits, which must not exceed those specified in Exhibit 347.23, must be provided.

Proper Shipping Name and ID Number

- Radioactive Material, excepted package-limited quantity, UN2910.
- Radioactive Material, excepted package-instruments or articles, UN2911.
- Radioactive Material, excepted package-articles manufactured from natural uranium (or natural thorium), UN2909.

Mailability

- International Mail: Only as permitted in 622.3 and IMM 135.5, and when sent under the following conditions:
  - Sent only to countries that expressed a willingness to accept them. (Refer to the Individual Country Listings in the IMM.)
  - APO/FPO/DPO destinations are subject to the conditions prescribed by the U.S. Department of Defense (DOD) as listed in "Overseas Military/Diplomatic Mail" in the *Postal Bulletin*.
  - Mailable radioactive materials may not have an activity content that exceeds one-tenth of the limits specified in Exhibit 347.23 and must not contain uranium hexafluoride.
  - The sender must apply his or her name and address and list the contents of the item on the inner wrapping.
  - Mailable radioactive materials may not have an activity content that exceeds one-tenth of the limits specified in Exhibit 347.23.
  - Each shipment must comply with both the International Atomic Energy Agency Regulations and the specifications in 347 and this section.
  - The sender and recipient of each radioactive materials shipment must receive prior authorization from the appropriate regulatory authorities within their countries.
  - The address side of each mailpiece must bear the following endorsements in bold letters: "Return to Sender in Case of Nondelivery" and "Radioactive Materials, Quantities Permitted for Movement by Post" and the applicable UN-number (i.e., UN2909, 2910 or 2911).
- Domestic Mail: Permitted only via surface transportation and when the applicable requirements in 347 are met.

Required Packaging

Separate packaging requirements apply as follows.

Domestic Mail for Limited Quantities (49 CFR § 173.421) whose activity per package does not exceed the limits specified in Exhibit 347.23:

Primary Receptacle

- The materials are packaged in strong, tight inner receptacles that will not leak any of the radioactive materials during normal Postal Service handling.

Absorbent and Cushioning Material

- Sufficient and suitably positioned absorbent material capable of absorbing at least twice the volume of the liquid contents in the event of leakage is required.
- Adequate cushioning material to withstand shock and pressure changes must surround the primary receptacle.

Secondary Packaging

- Liquid radioactive materials must be packaged within a leak-resistant and corrosion-resistant secondary packaging.

Outer Packaging

- The inner receptacle and the secondary packaging (when required) must be securely packed within a strong outer packaging. Refer to 339.4.
- The radiation level at any point on the external surface of the mailpiece must not exceed 0.5 millirem per hour.
- The nonfixed (removable) radioactive surface contamination on the external surface of the mailpiece does not exceed the applicable limits specified in 49 CFR § 173.443(a).
- The package does not contain fissile material unless excepted by 49 CFR § 173.453.
- No single dimension of the external mailpiece can be less than 2.5 centimeters (1 inch), and the length and girth can be no less than 30 centimeters (12 inches).

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- The outside of the inner receptacle or the outside of the secondary packaging must be clearly marked “Radioactive.”
- The address side of the mailpiece must clearly display the following marking: “This package conforms to the conditions and limitations specified in 49 CFR § 173.421 for radioactive material, excepted package-limited quantity of material, UN2910 and is within Postal Service activity limits for mailing.”
- A complete return address and delivery address must be used.

Domestic Mail for Mailable Instruments and Articles (49 CFR § 173.424) permitted under 347:

Instruments and manufactured articles (including clocks, electronic tubes, or apparatus) or similar devices having radioactive materials in gaseous or non-dispersible solid form as a component part must be packed as follows:

Primary Receptacle

- The activity of the instrument or device must not exceed the relevant limit listed in Exhibit 347.23.
- The radiation level at 10 centimeters (4 inches) from any point on the external surface of the unpackaged instrument or device must not exceed 10 millirem per hour.

Cushioning Material

- Adequate cushioning material to withstand shock and pressure changes must surround the primary receptacle.

Outer Packaging

- The inner receptacle and cushioning material must be securely packed within a strong outer packaging. Refer to 339.4.
- The total activity per mailpiece must not exceed the relevant limit listed in Exhibit 347.23.
- The radiation level at any point on the external surface of the mailpiece containing the device or instrument must not exceed 0.5 millirem per hour.
- The nonfixed (removable) radioactive surface contamination on the external surface of the mailpiece must not exceed the applicable limits specified in 49 CFR § 173.443(a).
- The package does not contain fissile material unless excepted by 49 CFR § 173.453.
- At least one external dimension of the mailpiece must be no less than 10 centimeters (4 inches).

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- The outside of the inner receptacle or the outside of the secondary packaging must be clearly marked “Radioactive.”
- The address side of the mailpiece must clearly display the following marking: “This package conforms to the conditions and limitations specified in 49 CFR § 173.424 for radioactive material, excepted package-instruments or articles, UN2911 and is within Postal Service activity limits for mailing.”
- A complete return address and delivery address must be used.

Domestic Mail for Mailable Excepted Articles Containing Uranium or Thorium (49 CFR § 173.426) permitted under 347:

Manufactured articles excepted under 347 and in which the sole radioactive material is natural or depleted uranium or natural thorium must be packaged as follows:

Primary Receptacle:

- The outer surface of the uranium or thorium is enclosed in an inactive sheath made of metal or other durable protective material.

Cushioning Material:

- Adequate cushioning material to withstand shock and pressure changes must surround the primary receptacle.

Outer Packaging:

- The inner receptacle and cushioning material must be securely packed within a strong outer packaging. (Refer to 339.4)
- The radiation level at any point on the external surface of the mailpiece must not exceed 0.5 millirem per hour.
- The nonfixed (removable) radioactive surface contamination on the external surface of the mailpiece must not exceed the applicable limits specified in 49 CFR § 173.443(a).

Marking:

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- The outside of the inner receptacle or the outside of the secondary packaging must be clearly marked “Radioactive.”
- The address side of the mailpiece must clearly display the following marking: “This package conforms to the conditions and limitations specified in 49 CFR § 173.426 for radioactive material, excepted package-articles manufactured from natural uranium (or natural thorium), UN2909 and is within Postal Service activity limits for mailing.”
- A complete return address and delivery address is required.

Note: Shipping documentation (refer to 326) is not required for mailable radioactive materials.

- International Mail:

The requirements specified in 622.3 and IMM 135.5 apply in addition to the Packaging Instructions for domestic mail.

USPS Packaging Instruction 8A

Corrosives

A corrosive is any liquid or solid that causes visible destruction or irreversible alteration in human skin tissue at the site of contact or a liquid that has a severe corrosion rate on steel or aluminum.

A Class 8 corrosive material that qualifies as a Limited Quantity air or Limited Quantity surface material is permitted via air or surface transportation in domestic mail provided that all applicable requirements in 348 are met.

Proper Shipping Name

- Various (refer to Appendix A).

ID Number

- Various (refer to Appendix A).

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted via air or surface transportation when packaging requirements are met.

Required Packaging

Separate packaging requirements apply for liquids and solids.

For Mailable Liquid Corrosives:

General

- Liquid Corrosive. A liquid mixture must be 1 pint (16 ounces) or less, and must contain 15 percent or less corrosive material with the remainder of the mixture not being a hazardous material, unless otherwise specified for a specific corrosive material.

Primary Receptacles

- Primary receptacles must be securely sealed.
- The primary receptacle must be tightly sealed with a screw cap having a minimum of one-and-one-half turns, a soldering clip, or other means to effect secure closure. A friction-top closure is not acceptable.
- Volume per primary receptacle is limited to 16 ounces.
- Multiple primary receptacles are permitted.

Absorbent and Cushioning Material

- A noncombustible absorbent material that is capable of taking up all liquid in case of leakage must surround the primary receptacle.
- Cushioning material must surround the primary receptacle to prevent breakage.

Secondary Packaging

- The secondary packaging must be compatible with the design of the primary receptacle.
- The secondary packaging must be tightly sealed with a screw cap having a minimum of one-and-one-half turns, a soldering clip, or other means to effect secure closure. A friction-top closure is not acceptable.

Outer Packaging

- The primary receptacle, absorbent material, cushioning material, and secondary packaging must be packed in a strong outer packaging. Refer to 339.4.
- Each mailpiece must not exceed a total weight of 25 pounds.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- For air transportation, mailpieces must bear the DOT Limited Quantity air mark (with the symbol “Y” in the center), an approved DOT Class 8 hazardous material warning label, the identification number and the proper shipping name.
- For surface transportation, the outer packaging must bear an approved DOT Limited Quantity surface mark designating surface transportation, prepared under 348.4(b).
- A complete return and delivery address must be used.

Documentation

- For air transportation, a properly completed Shipper's Declaration for Dangerous Goods must be prepared in triplicate and affixed to the outside of the mailpiece.

For Mailable Solid Corrosives:

General

- A solid mixture must be 10 pounds or less per primary receptacle and must contain 10 percent or less corrosive material with the remainder of the mixture not being a hazardous material, unless otherwise specified for a specific corrosive solid.

Primary Receptacle

- Each primary receptacle must be sift-proof and be securely sealed.

Secondary Packaging

- Each primary receptacle must be packed within a sift-proof secondary packaging that is compatible with the primary receptacle.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- Multiple primary receptacles and compatible secondary packaging may be packed within a single outer packaging up to a total weight of 25 pounds per mailpiece.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- For air transportation, mailpieces must bear the DOT Limited Quantity air mark (with the symbol “Y” in the center), an approved DOT Class 8 hazardous material warning label, the identification number, and the proper shipping name
- For surface transportation, the outer packaging must bear an approved DOT Limited Quantity surface mark designating surface transportation, prepared under 348.4(b).
- A complete return and delivery address must be used.

Documentation

- For air transportation, a properly completed Shipper's Declaration for Dangerous Goods must be prepared in triplicate and affixed to the outside of the mailpiece.

USPS Packaging Instruction 8B

Nonspillable Wet Battery

A nonspillable wet battery containing liquid electrolyte is prohibited from mailing unless the battery casing is completely sealed to prevent the liquid corrosive from spilling during handling, as allowed in 348. Nonspillable batteries with UN2800 are prohibited in international mail, but they may be sent as domestic mail via air or surface transportation when properly packaged. Nonspillable wet batteries mailed in accordance with these instructions must meet all applicable conditions in 49 CFR § 173.159a.

Proper Shipping Name

- Nonspillable Battery.

ID Number

- UN2800.

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted via air or surface transportation when packaging requirements are met.

Required Packaging

Primary Receptacle

- The nonspillable battery must be capable of withstanding the vibration and pressure differential tests cited in 49 CFR § 173.159(f) (1) and (2).

Absorbent and Cushioning Material

- The nonspillable battery must be protected from short circuits with protective or cushioning material.
- A noncombustible material that is capable of absorbing all liquid in case of leakage must surround the primary receptacle.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- The nonspillable battery must be securely packaged in a strong fiberboard box.
- Only one nonspillable battery is allowed per mailpiece.
- The total weight of a single mailpiece cannot exceed 25 pounds.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- The outer packaging must be plainly and durably marked on the address with the text “NONSPILLABLE BATTERY”.
- Each mailpiece must include the mailer and addressee names and have a complete delivery and return address.

Note: A Shipper's Declaration for Dangerous Goods is not required for nonspillable wet batteries sent via air transportation as exempted in 49 CFR § 173.159a.

USPS Packaging Instruction 8C

Manufactured Devices that Contain Small Amounts of Mercury

A corrosive is any liquid or solid that causes visible destruction or irreversible alteration in human skin tissue at the site of contact or a liquid that has a severe corrosion rate on steel or aluminum.

A Class 8 manufactured article that contains minute amounts of mercury (such as compact fluorescent lamps (CFLs) that meets the standards below is permitted in domestic mail provided all the applicable requirements in 348.22(g) are met.

Proper Shipping Name

- Mercury contained in manufactured articles

ID Number

- UN3506

Mailability

- International Mail. Prohibited
- Domestic Mail: Permitted via air or surface transportation when packaging requirements are met.

Required Packaging

Primary Receptacle

- Each primary device, article, or apparatus must be a securely sealed glass, or equivalent material, enclosure.
- Each device, article, or apparatus must be cushioned and separated from other items and must not exceed 100 milligrams (mg) (0.0035 ounce) of mercury.
- Multiple devices are permitted within a single mailpiece, provided the aggregate mercury quantity does not exceed 1 gram (g) (0.035 ounce) of mercury within the mailpiece.

Absorbent and Cushioning Material

A noncombustible absorbent/cushioning material, capable of containing any leakage in case of breakage, must surround each device.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- Each mailpiece must bear the marking “Manufactured Devices Containing Less Than 100 mg Mercury.”
- For air transportation, mailpieces must bear the DOT Limited Quantity air mark (with the symbol “Y” in the center), an approved DOT Class 8 hazardous material warning label, the identification number, and the proper shipping name
- For surface transportation, the outer packaging must bear an approved DOT Limited Quantity surface mark designating surface transportation, prepared under 348.4(b).
- A complete return and delivery address must be used.

Documentation

- For air transportation, a properly completed Shipper's Declaration for Dangerous Goods must be prepared in triplicate and affixed to the outside of the mailpiece.

USPS Packaging Instruction 9A

Dry Ice (Carbon Dioxide Solid)

When dry ice is enclosed in a thick metal or other restricting type of container, a build-up of internal pressure could cause the container to rupture or explode. Dry ice is permitted to be sent in domestic mail when it is used as a refrigerant to cool the contents of a mailable hazardous or nonhazardous material, provided that all applicable requirements in 349 are met.

Proper Shipping Name

- Carbon Dioxide Solid or Dry Ice.

ID Number

- UN1845.

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted with restriction via air or surface transportation.

Required Packaging

General

- Packages containing dry ice must be packed in containers that permit the release of carbon dioxide gas and conform to 49 CFR § 173.217 and 175.10(a)(10). If a fiberboard box is used, enough insulation is necessary to prevent condensation and wetting of the mailing carton.
- For air transportation, each mailpiece may *not* contain more than 5 pounds of dry ice.
- For surface transportation, a mailpiece may contain more than 5 pounds of dry ice.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- Each mailpiece must be clearly marked on the address side with the name of the contents being cooled (such as frozen medical specimens, steaks) and the net weight of the dry ice.
- For air transportation, each mailpiece must bear a Class 9 DOT miscellaneous hazardous material warning label and must be clearly marked “Carbon Dioxide Solid, UN1845” Or “Dry Ice, UN1845.”
- For surface transportation, each mailpiece must be clearly marked “Surface Only” or “Surface Mail Only” and “Carbon Dioxide Solid, UN1845” or “Dry Ice, UN1845.”

Documentation

- For air transportation, a properly completed Shipper's Declaration for Dangerous Goods must be prepared in triplicate and affixed to the outside of the mailpiece.

Note: A shipper's declaration and a Class 9 DOT warning label are not required for dry ice sent via domestic surface mail. Mailpieces containing dry ice that are prepared for surface transportation must not, under any circumstances, be routed via air transportation.

USPS Packaging Instruction 9B

Magnetized Materials

A magnetized material is an article that has a magnetic field strength capable of causing the deviation of aircraft instruments. Magnetized materials include magnets and magnetized devices such as magnetrons and light meters of sufficient strength to possibly cause erroneous aircraft magnetic compass readings. Magnetized materials are mailable, provided that all requirements in 349.42 are met.

Proper Shipping Name and ID Number

- Not applicable.

Mailability

- International Mail: Only non-regulated magnetized materials that have a magnetic field strength less than 0.002 gauss at a distance of 7 feet may be sent internationally. Magnetized materials which are regulated are prohibited. Refer to 622.4.
- Domestic Mail via Air Transportation: Magnetized materials that have a magnetic field strength greater than 0.00525 gauss at 15 feet are prohibited. A magnetic field strength less than 0.002 gauss at a distance of 7 feet is not regulated.
- Domestic Mail via Surface Transportation: Magnetized material is not regulated as a hazardous material when transported via surface transportation.

Required Packaging

General

- Magnets and magnetic devices such as magnetrons and light meters must be packaged with the polarities of each unit positioned to oppose one another.
- Keeper bars must be installed on permanent magnets or must otherwise be shielded to prevent the magnetic field from affecting magnetic compasses.
- Mailable materials must be packed in strong outer containers.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- For air transportation, the address side of the outer packaging must bear the magnetized material warning label shown in Exhibit 349.244.
- For surface transportation, mailpieces containing magnetized material with unconfined fields must be clearly marked on the address side with "Surface Only" or "Surface Mail Only" and "Magnetic - Keep 7 Feet Away From Navigational Equipment."
- A complete return address and delivery address must be used.

Documentation

- For air transportation, a properly completed Shipper's Declaration for Dangerous Goods must be prepared in triplicate and affixed to the outside of the mailpiece. Magnetized material is not regulated as a hazardous material when transported via surface transportation.

USPS Packaging Instruction 9C

Miscellaneous Hazardous Materials

A Class 9 miscellaneous hazardous material that qualifies as a Limited Quantity material within the Postal Service is permitted in domestic mail provided all applicable requirements in 349 are met.

Proper Shipping Name

- Consumer Commodity.

ID Number

- Various (refer to Appendix A).

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted via air or surface transportation. Flammable materials are prohibited from air transportation.

Required Packaging

Primary Receptacle

- For liquids, the capacity of the primary receptacle must not exceed 1 pint.
- For solids, the weight of the primary receptacle and its contents must not exceed 1 pound.
- Multiple primary receptacles are permitted.

Cushioning Material

- Enough cushioning material must surround the primary receptacle to prevent breakage and absorb all potential leakage.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle and cushioning material is required. Refer to 339.4.
- Each mailpiece must not exceed a total weight of 25 pounds.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- For air transportation, mailpieces must bear the DOT Limited Quantity air mark (with the symbol “Y” in the center), an approved DOT Class 9 hazardous material warning label, Identification Number “ID8000,” and the proper shipping name “Consumer Commodity.”
- For surface transportation, the outer packaging must bear an approved DOT Limited Quantity surface mark designating surface transportation, prepared under 349.4(b).
- A complete return and delivery address must be used.

Documentation

- For air transportation, a mailable material must have a properly completed Shipper's Declaration for Dangerous Goods prepared in triplicate and affixed to the outside of the mailpiece.

USPS Packaging Instruction 9D

Lithium Metal and Lithium-ion Cells and Batteries — Domestic

Lithium metal (nonrechargeable) cells and batteries and lithium-ion (rechargeable) cells and batteries are mailable domestically via air or surface transportation when they are installed in or packed with the equipment they are intended to operate if all the requirements in 349 and this packaging instruction are met.

Unless otherwise excepted, lithium metal and lithium-ion batteries (without equipment) are mailable domestically via surface transportation only. Lithium metal and lithium-ion batteries installed in or packed with used, damaged, or defective electronic devices (excluding devices that are new in original packaging, and manufacturer-certified new or refurbished devices) meeting all mailability requirements in 349 are mailable via surface transportation only.

Proper Shipping Name

- Lithium Metal Battery.
- Lithium-ion Battery.

ID Number

- Lithium-ion Battery, UN3480.

- Lithium Metal Battery, UN3090.
- Lithium-ion Battery contained in equipment, UN3481.
- Lithium-ion Battery packed with equipment, UN3481.
- Lithium Metal Battery contained in equipment, UN3091.
- Lithium Metal Battery packed with equipment, UN3091.

Mailability

- Lithium metal and lithium-ion cells and batteries *installed in or packed with* equipment may be mailable via air or surface transportation.
- Lithium-ion (*or lithium polymer*) batteries may be mailed, in limited quantities, via air transportation when both shipped from, and intended for delivery to, the state of Alaska under 349.24.
- Except as provided above, individual *lithium metal (or lithium alloy)* and *lithium-ion (or lithium polymer)* batteries (without equipment) are mailable in limited quantities via surface transportation only, provided the batteries are in the originally sealed packaging, and packaged and marked as described in 349.23 and 349.24, as applicable.
- Used, damaged, or defective electronic devices (excluding devices that are new in original packaging, and manufacturer-certified new or refurbished devices) containing or packaged with lithium batteries (refer to 349.21(e)) must be mailed via domestic surface transportation only, provided they meet eligibility requirements in accordance with 349.

Required Packaging

Lithium Metal and Lithium-ion Batteries

- Packaging must meet all applicable requirements specified in 49 CFR § 173.185. Except for mailpieces containing button cell batteries properly installed in the equipment they are intended to operate, mailpieces containing mailable lithium metal or lithium-ion batteries must be rigid, sealed, and of adequate size, so the lithium battery mark can be affixed to the address side without the mark being folded.
- Packaging must be strong enough to prevent crushing of the package or exposure of the contents during normal handling in the mail.
- The use of padded and poly bags as outer packaging is permitted only when the mailpieces contain button cell batteries meeting the classification criteria in 349.2(d), the batteries are properly installed in the equipment they are intended to operate, and the batteries are afforded adequate protection by that equipment.
- All outer packages must have a complete delivery and return address.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1

- **Lithium metal** batteries properly *installed* in the equipment they are intended to operate:

- Except for mailpieces containing button-cell batteries installed in equipment (including circuit boards), or no more than four lithium metal cells or two lithium metal batteries installed in the equipment they operate, mailpieces containing lithium metal batteries must bear a DOT-approved lithium-battery mark, as specified in 49 CFR 173.185(c)(3)(i) and Exhibit 325.4(a), applied to the address side of the mailpiece.
- The mark must specify "UN3091" for lithium metal cells or batteries installed in equipment.
- Used, damaged, or defective electronic devices (excluding devices that are new in original packaging, and manufacturer-certified new or refurbished devices) must include the text "Restricted Electronic Device" and "Surface Transportation Only" on the address side of the mailpiece.

■ **Lithium metal** *packed with* the equipment they are intended to operate:

- Mailpieces must bear a DOT-approved lithium-battery mark, as specified in 49 CFR § 173.185(c)(3)(i) and Exhibit 325.4(a), applied to the address side of the mailpiece.
- The mark must specify "UN3091" for lithium metal cells or batteries packed with equipment.
- Used, damaged, or defective electronic devices (excluding devices that are new in original packaging, and manufacturer-certified new or refurbished devices) must include the text "Restricted Electronic Device" and "Surface Mail Only" on the address side on the mailpiece.

■ **Lithium metal** batteries *not packed with or installed in* equipment (individual batteries):

- -Mailpieces must bear a DOT-approved lithium-battery mark, as specified in 49 CFR § 173.185(c)(3)(i) and Exhibit 325.4(a), applied to the address side of the mailpiece.
- The mark must specify "UN3090" for lithium metal cells or batteries.
- Mailpieces must also include the text "Surface Mail Only, Primary Lithium Batteries - Forbidden for Transportation Aboard Passenger Aircraft" or "Surface Mail Only, Lithium Metal Batteries - Forbidden for Transportation Aboard Passenger Aircraft.

Note: DOT-approved lithium-battery markings must be applied to all mailpieces when there are more than two mailpieces in a single consignment as defined in 349.21(b). If a package contains lithium metal cells or batteries assigned to different UN numbers, all applicable UN numbers must be specified.

■ **Lithium-ion** batteries properly *installed in* the equipment they are intended to operate:

- Except for mailpieces containing button-cell batteries installed in equipment (including circuit boards), or no more than four lithium-ion cells or two lithium-ion batteries installed in the equipment they

operate, mailpieces containing lithium-ion batteries must bear a DOT-approved lithium-battery mark, as specified in 49 CFR § 173.185(c)(3)(i) and Exhibit 325.4(a), applied to the address side of the mailpiece.

- The mark must specify "UN3481" for lithium-ion cells or batteries installed in equipment.
- Used, damaged, or defective electronic devices (excluding devices that are new in original packaging, and manufacturer-certified new or refurbished devices) must include the text "Restricted Electronic Device" and "Surface Mail Only" on the address side on the mailpiece

- **Lithium-ion** batteries *packed with* the equipment they are intended to operate:
  - Mailpieces must bear a DOT-approved lithium-battery mark, as specified in 49 CFR § 173.185(c)(3)(i) and Exhibit 325.4(a), applied to the address side of the mailpiece.
  - The mark must specify "UN3481" for lithium-ion cells or batteries packed with equipment.
  - Used, damaged, or defective electronic devices (excluding devices that are new in original packaging, and manufacturer-certified new or refurbished devices) must include the text "Restricted Electronic Device" and "Surface Mail Only" on the address side on the mailpiece.
- **Lithium-ion** batteries *not packed with* or *installed in* equipment (individual batteries):
  - Mailpieces must bear a DOT-approved lithium-battery mark, as specified in 49 CFR § 173.185(c)(3)(i) and Exhibit 325.4(a), applied to the address side of the mailpiece.
  - The mark must specify "UN3480" for lithium-ion cells or batteries.
  - Mailpieces must also include the text "Surface Mail Only, Secondary Lithium Batteries - Forbidden for Transportation Aboard Passenger Aircraft" or "Surface Mail Only, Lithium-ion Batteries - Forbidden for Transportation Aboard Passenger Aircraft."

Note: DOT-approved lithium-battery markings must be applied to all mailpieces when there are more than two mailpieces in a single consignment as defined in 349.21(b). If a package contains lithium-ion cells or batteries assigned to different UN numbers, all applicable UN numbers must be specified.

- **Used, damaged, or defective electronic devices**: In addition to applicable marking requirements listed above, packages containing used, damaged, or defective electronic devices (excluding devices that are new in original packaging, and manufacturer-certified new or refurbished devices) containing or packaged with lithium batteries must be marked with the text “Restricted Electronic Device” and “Surface Transportation Only” on the address side of the package. (Refer to 221.1 and 325.1.) Products being returned via *Parcel Return*

Service (PRS), *Return Delivery Unit* (RDU) or *Return Sectional Center Facility* (RSCF) are exempt from this marking requirement.

Quantities

Domestic — Lithium Metal Cells and Batteries:

Installed in or *packed with* the equipment they are intended to operate:

- Each cell must contain no more than 1.0 gram of lithium content.
- Each battery must contain no more than 2.0 grams aggregate lithium content.
- The shipment cannot contain more batteries than the number needed to operate the device.
- Each mailpiece must contain no more than 8 cells or 2 batteries.

Individual batteries mailed *without equipment*:

- Each cell must contain no more than 1.0 gram of lithium content.
- Each battery must contain no more than 2.0 grams aggregate lithium content.
- The mailpiece must not exceed 5 pounds.

Domestic — Lithium-ion Cells and Batteries:

Installed in or packed with the equipment they are intended to operate:

- The total watt-hour rating for each cell must not exceed 20 Wh.
- The total watt-hour rating for each battery must not exceed 100 Wh.
- Each mailpiece must contain no more than 8 cells or 2 batteries.

Individual batteries mailed without equipment:

- The total watt-hour rating for each cell must not exceed 20 Wh.
- The total watt-hour rating for each battery must not exceed 100 Wh.
- The mailpiece must not exceed 5 pounds.

Domestic — Small Lithium Metal or Lithium-ion Batteries

Very small, consumer-type batteries*, installed in* equipment, or *packed with* equipment:

- Each lithium metal or lithium alloy cell or battery must contain no more than 0.3 gram of lithium content.
- Each lithium-ion or lithium polymer cell or battery must not exceed a watt-hour rating of 2.7 Wh.
- No limit on the number of cells/batteries.
- Each mailpiece must not exceed 2.5 kilograms (5.5 pounds) total weight.

Exhibit Packaging Instruction 9D: Domestic Lithium Battery Mailability

	Surface Transportation	Air Transportation[1]	Mailpiece Limitations[2]
Lithium Metal or Lithium Alloy Batteries[3, 4] *Small, non-rechargeable, consumer-type batteries*			
Contained in (properly installed in equipment)	Mailable	Mailable	8 cells or 2 batteries 11 lbs.
Packed with equipment, but not installed in the equipment	Mailable	Mailable	8 cells or 2 batteries 11 lbs
Without the equipment they operate (individual batteries in originally sealed packaging)	Mailable	Prohibited	5 lbs.
Lithium-ion or Lithium Polymer Batteries[5, 6] *Small, rechargeable, consumer-type batteries*			
Contained in (properly installed in equipment)	Mailable	Mailable	8 cells or 2 batteries
Packed with equipment, but not installed in the equipment	Mailable	Mailable	8 cells or 2 batteries
Without the equipment they operate (individual batteries in originally sealed packaging)	Mailable	Prohibited[7]	5 lbs.
Very Small Lithium Metal or Lithium-ion Batteries [8, 9] *Exception for very small consumer-type batteries in USPS air transportation*			
Contained in (properly installed in equipment)	Mailable	Mailable	No limit on cells/ batteries 5.5 lbs.
Packed with equipment, but not installed in the equipment	Mailable	Mailable	No limit on cells/ batteries 5.5 lbs.
Damaged, Defective, or Recalled Batteries	Prohibited, unless approved by the director, Product Classification.		

1. *Used, damaged, or defective electronic devices are prohibited from air transportation. This excludes devices that are new in original packaging, and manufacturer-certified new or refurbished devices..*
2. *When a mailpiece limitation of 8 cells or 2 batteries is applicable, a mailpiece may contain either 8 cells or 2 batteries, not both.*
3. *Each cell must not contain more than 1.0 g of lithium content.*
4. *Each battery must not contain more than 2.0 g of aggregate lithium content.*
5. *Each cell must not exceed more than 20 Wh (watt-hour rating).*
6. *Each battery must not exceed 100 Wh.*
7. *Mailable intra-Alaska via air transportation is limited to 8 cells or 2 batteries.*
8. *Each lithium metal or lithium alloy cell or battery must not exceed 0.3 g of lithium content.*
9. *Each lithium-ion or lithium polymer cell or battery must not exceed 2.7 Wh.*

USPS Packaging Instruction 9E

Lithium Metal and Lithium-ion Cells and Batteries — International and APO/FPO/DPO

Lithium metal (non-rechargeable) cells and batteries and lithium-ion (rechargeable) cells and batteries are mailable in limited quantities internationally or to and from APO, FPO, or DPO locations only when they are properly installed in the equipment they operate.

Proper Shipping Name

- Lithium Metal Battery.
- Lithium-ion Battery.

ID Number

- Lithium Metal Battery contained in equipment, UN3091.
- Lithium-ion Battery contained in equipment, UN3481.

Mailability

- Lithium batteries must also be accepted by the destination country as designated by the Individual Country Listing in the IMM.
- APO/FPO/DPO destinations are also subject to the conditions prescribed by the Department of Defense (DOD) as listed in *Overseas Military/Diplomatic Mail* in the *Postal Bulletin*.
- Lithium metal and lithium-ion cells and batteries *installed in* the equipment they are intended to operate (UN3091 and UN3481) are mailable.
- Lithium metal and lithium-ion cells and batteries not packed in equipment (i.e., batteries packed with equipment or batteries sent separately from equipment) are prohibited.
- Used, damaged, and defective electronic devices (excluding devices that are new in original packaging, and manufacturer-certified new or refurbished devices) containing lithium batteries are prohibited (refer to 623).

Required Packaging

Lithium Metal and Lithium-ion Batteries

- The equipment must be cushioned to prevent movement or damage, and must be contained in rigid outer packaging, sealed and strong enough to prevent crushing of the package or exposure of the contents during normal handling in the mail.
- All outer packages must have a complete delivery and return address.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- **Lithium metal** batteries properly *installed in* the equipment they are intended to operate:
  - Mailable internationally when permitted by country, including to and from APO, FPO, and DPO locations.
  - No lithium battery markings permitted. Quantities must be within the limits of 622.5 and as outlined below.
- **Lithium-ion** batteries properly *installed in* the equipment they are intended to operate:
  - Mailable internationally when permitted by country, including to and from APO, FPO, and DPO locations.
  - No lithium battery markings permitted. Quantities must be within the limits of 622.5 and as outlined below.

Quantities

International — Lithium Metal and Lithium-ion Cells and Batteries:

Installed in equipment:

- Each shipment may contain a maximum of four lithium-ion cells or two lithium-ion batteries.
- The total watt-hour rating for each cell must not exceed 20 Wh.
- The total watt-hour rating for each battery must not exceed 100 Wh.

Note: A lithium battery consignment, as defined in 349.21(b), is limited to a maximum of two mailpieces for all international and APO/FPO/DPO mailings.

International — Very Small Lithium Metal and Lithium-ion Cells and Batteries:

Installed in equipment:

- Each shipment containing very small lithium cells and batteries, when installed in the equipment they operate (including circuit boards), may contain a maximum of four lithium cells or two lithium batteries.
- Lithium metal cells and batteries must contain no more than 0.3 gram of lithium content.
- Lithium-ion cells/batteries must have watt-hour rating of not more than 2.7 Wh.

Note: A lithium battery consignment, as defined in 349.21(b), is limited to a maximum of two mailpieces for all international and APO/FPO/DPO mailings.

Exhibit Packaging Instruction 9E: International Lithium Battery Mailability Exhibit

	International APO/FPO/DPO[1, 2]	Mailpiece Battery Limit[3]
Lithium Metal or Lithium Alloy Batteries [4, 5] *Small, non-rechargeable, consumer-type batteries*		
Contained in (properly installed in equipment)	Mailable	Maximum of 4 cells or 2 batteries
Packed with equipment, but not installed in the equipment	Prohibited	
Without the equipment they operate (individual batteries in originally sealed packaging)	Prohibited	
Lithium-ion or Lithium Polymer Batteries [6, 7] *Small, rechargeable, consumer-type batteries*		
Contained in (properly installed in equipment)	Mailable	Maximum of 4 cells or 2 batteries
Packed with equipment, but not installed in the equipment	Prohibited	
Without the equipment they operate (individual batteries in originally sealed packaging)	Prohibited	
Very Small Lithium Metal or Lithium-ion Batteries [8, 9] *Exception for very small consumer-type batteries in USPS air transportation*		
Contained in (properly installed in equipment)	Mailable	Maximum of 4 cells or 2 batteries
Packed with equipment, but not installed in the equipment	Prohibited	
Without the equipment they operate (individual batteries in originally sealed packaging)	Prohibited	

1. *Unless otherwise prohibited by the international destination country or specific APO/FPO/DPO ZIP Code location.*
2. *Used, damaged, defective, or recalled lithium batteries and used damaged, or defective electronic devices containing lithium batteries are prohibited and may not be mailed internationally or to, from or between APO, FPO, or DPO locations under any circumstances. This excludes electronic devices that are new in original packaging, and manufacturer-certified new or refurbished devices.*
3. *When a mailpiece limitation of 4 cells or 2 batteries is applicable, a mailpiece may contain either 4 cells or 2 batteries, not both.*
4. *Each lithium metal or lithium alloy cell must not contain more than 1.0 g (gram) of lithium content.*
5. *Each lithium metal or lithium alloy battery must not contain more than 2.0 g of aggregate lithium content.*
6. *Each lithium-ion or lithium polymer cell must not exceed more than 20 Wh (watt-hour rating).*
7. *Each lithium-ion or lithium polymer battery must not exceed 100 Wh.*
8. *Each lithium metal or lithium alloy cell or battery must not exceed 0.3 g of lithium content.*
9. *Each lithium-ion or lithium polymer cell or battery must not exceed a watt-hour rating of 2.7 Wh.*

Note: Shipments containing lithium batteries are not permitted in Global Express Guaranteed mailpieces.

USPS Packaging Instruction 10A

Small-Quantity Provision

Some types of hazardous materials, as permitted in 338 and 49 CFR § 173.4, may be prepared for mailing using the "small-quantity" provision. The small-quantity provision is unique within the United States, and its use is prohibited in international and APO/FPO/DPO mail.

Proper Shipping Name and ID Number

- Not applicable.

Prototype Testing Requirement

- The complete mailing package must be capable of withstanding the test criteria in 49 CFR § 173.4(a)(6).

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted via surface transportation only.

Required Packaging

Inner Receptacle

- Each inner receptacle is limited to 30 milliliters or 1 ounce or less for liquids.
- Each inner receptacle is limited to 30 grams or 1 ounce or less for solids.
- Each inner receptacle cannot be liquid-full at 131° F (55° C).
- Each inner receptacle must be constructed of plastic with a minimum thickness of no less than 0.2 mm (0.008 inch) or must be made of earthenware, glass, or metal.
- Each inner receptacle must be securely sealed with wire, tape, or other positive means.

Absorbent and Cushioning Material

- Sufficient absorbent material that will not react chemically with the hazardous material must fully surround each inner receptacle and be capable of absorbing the entire liquid contents of the inner receptacle(s) in case of leakage.
- Each primary receptacle must be surrounded by sufficient cushioning material to absorb shock and prevent breakage.
- The absorbent and cushioning materials used must not violate 49 CFR § 173.21.

Secondary Packaging

- Each inner receptacle and the absorbent cushioning material must be placed within a securely sealed secondary packaging.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- The total weight of each mailpiece must not exceed 64 pounds (29 kg).

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- The address side of each mailpiece sent under the small quantity provision must be clearly marked with “This package conforms to 49 CFR § 173.4 for domestic highway or rail transport only.”
- A complete return address and delivery address must be used.

USPS Packaging Instruction 10B

Excepted Quantity Provision

Some types of hazardous materials, as permitted in 337 and 49 CFR § 173.4a, may be prepared for mailing using the excepted quantity provision. The excepted quantity provision, although applicable to international shipments by commercial shippers, is limited to domestic mail, and its use is prohibited in international and APO/FPO/DPO mail.

Proper Shipping Name and ID Number

- Not applicable.

Prototype Testing Requirement

- The complete mailing package must be capable of withstanding the test criteria in 49 CFR § 173.4a(f).

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted via air or surface transportation (highway, rail, or vessel).

Required Packaging

Primary Receptacle

- Each primary receptacle must be constructed of plastic, glass, porcelain, stoneware, earthenware, or metal. Plastic inner packaging must have a thickness of not less than 0.2 mm (0.008 inch).
- Each inner packaging with a removable closure must have its closure held securely in place with wire, tape, or other positive means.
- Each primary receptacle having a neck with molded screw threads must have a leak-proof, threaded-type cap.
- Closures must not react chemically with the material.

Secondary Packaging

- Each primary receptacle must be securely packed in secondary packaging with cushioning material in such a way that, under normal conditions of transport, will not break, be punctured, or leak.
- Secondary packaging must completely contain the contents in case of breakage or leakage, regardless of package orientation.

Absorbent and Cushioning Material

For liquids, secondary packaging must contain sufficient absorbent material that:

- Will absorb the entire contents of the primary receptacle.
- Will not react dangerously with the material or reduce the integrity or function of the packaging materials.
- The absorbent material may be the cushioning material.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- Placement of the material in the package must not violate 49 CFR § 173.21.
- Outer packages must be of such a size that there is adequate space to apply all necessary markings.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- Mailpieces must be durably and legibly marked with the following marking:

- The "*" must be replaced by the primary hazard class, or when assigned, the division of each of the hazardous materials contained in the package. The "**" must be replaced by the name of the mail owner or mail service provider, if not shown elsewhere on the package.
- The marking must be located on the address side of the mailpiece, not be less than 100 mm (3.9 inches) by 100 mm (3.9 inches), and must be durable and clearly visible.

Documentation

- For ground transportation (highway or rail), no shipping paper is required.
- For surface transportation by vessel, a shipping paper is required and must include the statement "Dangerous Goods in Excepted Quantities" and indicate the number of packages.
- For transport by air, a Shipper's Declaration for Dangerous Goods is not required.

USPS Packaging Instruction 10C

Cremated Remains

Human and animal cremated remains in any state (e.g. ashes, keepsakes, and jewelry) are permitted for mailing with restrictions, provided they are appropriately prepared according to 451 and the following instructions.

Proper Shipping Name

Not applicable.

ID Number

Not applicable.

Mailability

- International Mail: Permitted via *Priority Mail Express International Service* when permitted by the destination country (refer to the Individual Country Listings in the IMM).
- Domestic Mail: Permitted via *Priority Mail Express* service only.

Required Packaging

Primary Receptacle

- International: A funeral urn is required as the primary receptacle. It must be sealed and sift-proof.
- Domestic: The primary receptacle must be strong and durable and be constructed in such a manner as to protect and securely contain the contents inside and it must be properly sealed so that it is sift-proof.

Note: A sift-proof container is any vessel that does not allow loose powder to leak or sift out during transit.

Cushioning Material

- For both domestic and international shipping, the space between the primary receptacle and the outer packaging must contain enough material to keep the item stable during transit and to absorb the shock to prevent breakage.

Outer Packaging

- A strong outer packaging that is capable of firmly and securely holding the primary receptacle(s) and cushioning material is required. Refer to 339.4.
- All cremated remains mailings must utilize the USPS-produced Cremated Remains (BOX-CRE) outer packaging, found on usps.com.
- Insert the primary receptacle into a sealed plastic bag, then place in the shipping box and add padding to the bottom, sides, and top to ensure there is no movement of contents during transit.

Note: It is recommended that you attach a slip of paper to the sealed plastic bag with the complete return and delivery addresses and the words “Cremated Remains” in the event the mailing label becomes

detached from the outer packaging after acceptance.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

- Domestic: A complete return address and delivery address must be used.
- International: A complete return address and delivery address must be used. The mailer must indicate the contents (Cremated Remains) on the applicable customs declaration form.

Documentation

- International: If available, and when required by the destination post, the cremation certificate and any other certificates or permits should be attached to the outer packaging or made easily accessible. The sender is responsible for obtaining all the necessary documentation and permissions required by the national laws in the country of origin and the country of destination prior to dispatching these items. Refer to the Individual Country Listings in the IMM.

USPS Packaging Instruction 10D

Adult Bird Boxes

Disease-free adult birds may be mailed domestically when shipped under all applicable governmental laws and regulations, including the Lacey Act, the Endangered Species Act (ESA), the Animal Welfare Act, regulations of the U.S. Department of Agriculture, U.S. Fish and Wildlife Service, and any state, municipal, or local ordinances. Each container must meet container specifications. Refer to 521, 522, and 526.4.

Proper Shipping Name

- Not applicable.

ID Number

- Not applicable.

Mailability

- International Mail: Prohibited.
- Domestic Mail: Permitted via Priority Mail Express service only.

Required Packaging

Containers must be designed with consideration of the birds' comfort, awareness, health, and welfare, including possible temperature fluctuations that may occur during transport. In addition, the container must:

- Remain intact and withstand crushing during transportation.
- Prevent the birds from puncturing or breaking any part of the container with their own force, or escaping from the container.

- Contain shavings or similar absorbent material to prevent damage to the bottom of the container.
- Have a secure window (covered and sturdy) designated for a visible inspection of the birds.
- Provide sufficient exposure to air to allow the birds to breathe normally through filter-covered ventilation that minimizes the chance of handler contact with solid or aerosolized waste.

Marking

Labels and markings must be placed on the address side of the mailpiece unless specified differently in 221.1 and 325.1.

Each container must be marked with the following information:

- "Live Birds — USPS Approved Container # (once issued)."
- Complete sender's and recipient's addresses (including phone numbers) on the outer packaging for the necessary notification by Postal Service personnel.

Directional arrows indicating "up" position (on at least two sides of the container).

Appendix D

Acronyms

Acronyms Description

ASTM American Society for Testing and Materials

Btu means British thermal unit

Ci Curie

C Degrees Celsius or Centigrade

DOD U.S. Department of Defense

DOT U.S. Department of Transportation

DOT has the federal authority to regulate the transportation of hazardous materials within domestic commerce. DOT regulations are codified in Title 49, Code of Federal Regulations (49 CFR).

EPA U.S. Environmental Protection Agency

EPA regulations are codified in Title 40, Code of Federal Regulations (40 CFR).

F Degrees Fahrenheit

IATA International Air Transportation Association

IATA annually publishes the IATA Dangerous Goods Regulations, which provides procedures for shippers to prepare hazardous materials for safe transport by air via commercial air transportation. The IATA regulations contain all of the ICAO Technical Instructions as well as some more restrictive requirements that reflect air transport industry standard practices or operational considerations.

ICAO International Civil Aviation Organization

ICAO biannually publishes the Technical Instructions for the Safe Transport of Dangerous Goods by Air, which specifies the procedures for shipping hazardous materials via air transportation and is recognized by DOT in 49 CFR § 171.11.

ICL Individual Country Listing

IMO International Maritime Organization

IMO provides requirements for shipping hazardous materials via waterways.

kPa Kilopascal(s)

L (or l) Liter(s)

ml Milliliter(s)

mm Millimeter(s)

n.o.s. Not otherwise specified

ORM Other regulated material

OSHA Occupational Safety and Health Administration of the U.S. Department of Labor

OSHA regulations are codified in Title 29, Code of Federal Regulations (29 CFR).

PG Packing Group

psi Pounds per square inch

psia Pounds per square inch absolute

psig Pounds per square inch gauge

RQ Reportable Quantity

SDS Safety Data Sheet

TBq Terabecquerel

Hazardous Materials Definitions

Aerosol means any nonrefillable metal receptacle containing a gas that is compressed, liquified, or dissolved under pressure, the sole purpose of which is to expel a nonpoisonous (other than a Division 6.1 Packing Group III material) liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas.

Air transportation requirements apply to all mailable hazardous materials sent at Priority Mail Express or Priority Mail prices for domestic shipments, or Priority Mail Express International, Priority Mail International, and First-Class Package International Service prices for international shipments. All mailable hazardous materials sent at those prices must meet the requirements that apply to air transportation. Mailable hazardous materials sent at any of those prices may or may not be transported via air depending on the distance between the point of origination and the point of destination, and the ability of USPS to obtain an air carrier between those points.

Ammunition includes all kinds of bombs, grenades, rockets, mines, projectiles, and other similar devices or contrivances. Ammunition is a Class 1 explosive and is nonmailable.

ASTM refers to the American Society for Testing and Materials.

Batteries, dry are sealed, nonvented batteries of the type used in flashlights or for the operation of small household apparatus. They contain zinc salts and other solids, or may be of the nickel cadmium type or other combinations of metals.

Biohazard is a biological material that poses a threat to humans or the environment. The biohazard symbol that is required for certain Division 6.2 materials is an OSHA requirement detailed in 29 CFR § 1910.1030.

Biological products means a material derived from a living organism that is prepared and manufactured in accordance with 9 CFR § 102-104 (licenses for biological products; experimental products, distribution, and evaluation prior to licensing; and permits for biological products), 21 CFR § 312

(investigational new drug application), or 21 CFR § 600-680 (biologics) and that, under such provisions, may be shipped in interstate commerce. Biological products include, but are not limited to, products such as vaccines.

Btu means British thermal unit.

C means degrees Celsius or Centigrade. Celsius or Centigrade is a thermometer scale on which the freezing and boiling points of water are divided into 100, with 0° representing the freezing point and 100° the boiling point.

Cargo aircraft only means an aircraft that is used to transport cargo and is not engaged in carrying passengers.

Ci means curie.

Clinical (diagnostic) specimen is any human or animal material including, but not limited to, excreta, secreta, blood, blood components, tissue, and tissue fluids that have been collected and are being mailed to a medical or forensic laboratory for the purpose of diagnosis, or being mailed from a medical or forensic laboratory for return to a law enforcement agency.

Combination packaging means one or more inner packagings (i.e., receptacles) secured in a nonbulk outer packaging. This is a term used by DOT in 49 CFR.

Combustible liquid is a Class 3 material in a liquid form that has a flashpoint above 140° F (60° C) and below 200° F (93° C).

Compatibility group refers to a designated alphabetical letter used to categorize different types of Class 1 explosive substances and articles for purposes of safe stowage and segregation (e.g., Division 1.4S).

Composite packaging consists of an outer packaging and an inner receptacle so constructed that they form an integral unit. Once assembled, it remains a single integrated unit; it is filled, stored, shipped, and emptied as such. This is a term used by DOT in 49 CFR.

Compressed gas is a material or mixture within a container that is a gas at 68° F (20° C) or less and 14.7 psi (101.3 kPa), or exerts an absolute pressure of 40.6 psia (280 kPa) or greater at 68° F (20° C). Gases are Class 2 hazardous materials.

Consumer commodity is a hazardous material that is packaged and distributed in a quantity and form intended or suitable for retail sale and designed for individual consumption for personal care or household use purposes. This term can also include certain drugs or medicines.

Corrosive material means a Class 8 liquid or solid material that causes visible destruction of human skin at the site of contact within a specified period of time. A liquid that has a severe corrosion rate on steel or aluminum is also a corrosive material.

Dangerous goods is the term used to describe hazardous materials shipped in international commerce.

Dangerous when wet material is a Division 4.3 material that by contact with water is liable to become spontaneously flammable or to give off flammable or toxic gas.

De minimis is the maximum quantity of Packing Group II & III in Class 3, Division 4.1, Division 4.2, Division 4.3, Division 5.1, Division 6.1, Class 8, and Class 9 materials that do not meet the definition of hazardous material. Inner receptacles or articles are limited to One (1) ml (0.03 ounce) for liquids; and One (1) gram (0.04 ounce) for solid materials and 100 ml (3.38 ounces) for liquids; and 100 g (0.22 pounds) for solid materials total aggregate per mailpiece. De minimis does not apply to prohibited items (e.g., mercury, hydrofluoric acid).

Designated facility is (for EPA purposes) the hazardous waste treatment, storage, or disposal facility that has been designated on a hazardous waste manifest by the waste generator.

Diagnostic specimen, see clinical specimen.

Division refers to a subpart of a hazard class (e.g., Division 6.1).

DOD refers to the U.S. Department of Defense.

Domestic transportation is transportation between locations within the United States.

DOT refers to the U.S. Department of Transportation. DOT has the federal authority to regulate the transportation of hazardous materials within domestic commerce. DOT regulations are codified in Title 49, Code of Federal Regulations (49 CFR).

Elevated temperature material means a material that, when offered for transportation, is in a liquid phase and at a temperature at or above 212° F (100° C); is in a liquid phase with a flashpoint at or above 100° F (37.8° C) that is intentionally heated and offered for transportation at or above its flashpoint; or is in a solid phase and at a temperature at or above 464° F (240° C). Elevated temperature materials are Class 9 hazardous materials and are nonmailable.

EPA refers to the U.S. Environmental Protection Agency. EPA regulations are codified in Title 40, Code of Federal Regulations (40 CFR).

Etiologic agent, see infectious substance.

Explosive is any Class 1 substance or article, including a device, that is designed to function by explosion (i.e., an extremely rapid release of gas and heat) or that, by chemical reaction within itself, is able to function in a similar manner.

F means degrees Fahrenheit. Fahrenheit is a thermometer scale on which the boiling point of water is 212° above zero and the freezing point is 32° above zero.

Flammable gas is a Division 2.1 material that is ignitable at 14.7 psi (101.3 kPa) when in a mixture of 13 percent or less by volume, or has a flammable range at 14.7 psi (101.3 kPa) with air of at least 12 percent regardless of the lower limit.

Flammable liquid is a Class 3 material in a liquid form that has a flashpoint of not more than 140° F (60° C), or any material in a liquid phase with a flashpoint at or above 100° F (38° C).

Flammable solid is a Division 4.1 material that includes any solid material (other than one classed as an explosive) that under normal transport and

handling conditions is likely to cause fire through friction or retained heat from manufacturing or processing, or that can be ignited readily and, when ignited, can burn vigorously and persistently and create a serious transportation hazard.

Flashpoint means the minimum temperature at which a liquid gives off vapor within a test vessel in sufficient concentration to form an ignitable mixture with air near the surface of the liquid. The test criteria is cited in 49 CFR § 173.120(c).

Gas means a material that has a vapor pressure greater than 43.5 psi (300 kPa) at 122° F (50° C) or is completely gaseous at 68° F (20° C) at a standard pressure of 14.7psi (101.3 kPa). Also, see compressed gas.

Hazard class means the category to which a hazardous material is assigned under the definitions set by DOT in 49 CFR. Even though a material is assigned to only one hazard class, it may meet the defining criteria for more than one hazard class. Some hazardous materials may also have subsidiary hazard class assignment.

Hazard zone refers to one of the four levels of hazards (Hazard Zones A through D) assigned to gases and liquids that are poisonous by inhalation. A hazard zone is based on the LC_{50} value for acute inhalation and toxicity of gases and vapors. Hazardous materials assigned a hazard zone are nonmailable.

Hazardous material is any article or substance designated by the U.S. Department of Transportation (DOT) as being capable of posing an unreasonable risk to health, safety, or property during transportation. In international commerce, hazardous materials are known as “dangerous goods.”

Hazardous substance is a hazardous material that when shipped in certain quantities can be an environmental hazard. Appendix A in 49 CFR § 172.101 lists all hazardous substances. All hazardous substances are hazardous materials, but not all hazardous materials are hazardous substances. Hazardous substances are nonmailable.

Hazardous waste is any material subject to the Hazardous Waste Manifest Requirements of EPA as specified in 40 CFR § 262. The only type of hazardous waste permitted in domestic mail is medical waste (i.e., sharps and other medical devices) as specified in 346.

IATA refers to the International Air Transportation Association. IATA annually publishes the IATA Dangerous Goods Regulations, which provides procedures for shippers to prepare hazardous materials for safe transport by air via commercial air transportation. The IATA regulations contain all of the ICAO Technical Instructions as well as some more restrictive requirements that reflect air transport industry standard practices or operational considerations.

ICAO refers to the International Civil Aviation Organization. ICAO biannually publishes the Technical Instructions for the Safe Transport of Dangerous Goods by Air, which specifies the procedures for shipping hazardous materials via air transportation and is recognized by DOT in 49 CFR § 171.11.

ID8000 is a miscellaneous hazardous class specific to certain materials within Classes 2, 3, 6.1, and 9 that can qualify as a mailable consumer

commodity material and are reclassed as ID8000 when intended for air transportation.

IMO refers to the International Maritime Organization, which provides requirements for shipping hazardous materials via waterways.

Infectious substance (etiologic agent) is a Division 6.2 material that is a viable microorganism, or its toxin, and causes or may cause disease in human beings or animals, and includes those agents listed in 42 CFR § 72.3 and any other agent that causes or may cause severe, disabling, or fatal disease. The terms “infectious substance” and “etiologic agent” are synonymous.

Inhalation hazard, see hazard zone.

Inner receptacle, see primary receptacle.

Irritating material is any Division 6.1 liquid or solid substance (e.g., tear gas) that gives off intense fumes and causes extreme but temporary irritation and impairment to a person’s ability to function.

kPa means kilopascals.

L or l means liter.

Limited Quantity is the maximum amount of a specific hazardous material that is exempted from the labeling or packaging requirements in 49 CFR. To be permitted in the Postal Service, hazardous materials that are classified to be shipped as Limited Quantity must also qualify as a consumer commodity material. See Consumer Commodity, Limited Quantity air and Limited Quantity surface.

Limited Quantity Air is a category unique to the Postal Service of a hazardous material in hazard Classes 5, 8, and portions of 9 that presents a limited hazard specifically in air transportation and is mailable under certain conditions in Postal Service air networks.

Limited Quantity Surface is a material that contains a limited quantity of a hazardous material that presents a limited hazard during transportation due to its form, quantity, and packaging, specific to the Postal Service, and is restricted to surface transportation. This category generally must also qualify as a consumer commodity to be accepted in the Postal Service network. This material was previously classified as ORM-D.

Liquid is a material, other than an elevated temperature material, with a melting point of 68° F (20° C) or lower at a standard pressure of 14.7 psi (101.3 kPa).

Liquid phase means a material that meets the definition of a liquid when elevated at the higher of the temperature at which it is offered for transportation, not at the 100° F (38° C) temperature.

Mailable Limited Quantity is a hazardous material in hazard Classes 4, 5, 8 or portions of 9 that presents a limited hazard during transportation (specifically air transport), and is mailable in USPS air networks under certain conditions and in limited quantities.

Magnetized material is an article that has a magnetic field strength capable of causing the deviation of aircraft instruments and producing erroneous aircraft magnetic compass readings.

Marine pollutant is any hazardous material listed in Appendix B of 49 CFR § 172.101, including mixtures or solutions of certain concentrations that are capable of polluting water habitats. Marine pollutants are not mailable.

Material Safety Data Sheet (MSDS), see Safety Data Sheet (SDS).

Maximum capacity means the maximum volume permitted in the inner receptacle or packaging.

Miscellaneous hazardous materials are Class 9 substances or articles that present a hazard during transportation but do not meet the definition of any other hazard class. Examples are dry ice and magnetized materials.

ml means milliliter.

mm means millimeters.

NA number refers to the North American (NA) four-digit identification number assigned to a hazardous material that is not recognized for international transportation. Hazardous materials having NA numbers may be shipped in commercial commerce only within the United States or between the United States and Canada. Hazardous materials with NA numbers may be mailed within the United States only as permitted in Chapter 3.

Nonflammable gas is a Division 2.2 material that exerts an absolute pressure of 40.6 psia (280 kPa) or greater at 68° F (20° C). **n.o.s.** means not otherwise specified.

Organic peroxide is a Division 5.2 material that includes any organic compound containing oxygen in the bivalent structure and that may be considered a derivative of hydrogen peroxide, where one or more of the hydrogen atoms have been replaced by organic radicals.

ORM means other regulated material.

ORM-D (other regulated materials for **domestic** transport only) was a marking for mail or shipping in the United States. Packages bearing this mark contained hazardous material in a limited quantity that present a limited hazard during transportation, due to its form, quantity, and packaging. ORM-D was phased out by the U.S. Department of Transportation on Jan. 1, 2021.

OSHA refers to the Occupational Safety and Health Administration of the U.S. Department of Labor. OSHA regulations are codified in Title 29, Code of Federal Regulations (29 CFR).

Other medical devices are Division 6.2 materials that include all articles or devices used in animal or human patient care or treatment or in medical research that are not, or do not contain, a projecting sharp and are not known or not reasonably believed to contain an infectious substance (etiologic agent).

Outer packaging is the outermost enclosure that provides protection against the unintentional release of the contents under normal handling conditions. The outer packaging holds the primary receptacle, the secondary packaging (if required), and the absorbent material and cushioning. The outer packaging bears the addressing information along with all required markings and labels.

Oxidizing gas means a gas that more than air may cause or contribute to the combustion of other material by generally providing oxygen.

Oxidizing substance is a Division 5.2 material that may, generally by yielding oxygen, cause or enhance the combustion of other materials.

Packing group (PG) is the DOT grouping assignment that is based on the degree of danger present in an individual hazardous material. Packing Group I indicates a great danger; Packing Group II, medium danger; Packing Group III, minor danger. Not every hazard class uses packing group assignments. ORM-D materials most often fall within Packing Group III.

Passenger-carrying aircraft means an aircraft that carries any person other than a crew member or company employee, an authorized representative of the United States, or a person accompanying the shipment.

Poisonous gas, see toxic gas.

Poisonous material, see toxic substance.

Primary hazard refers to the single or most dangerous hazard characteristic of a hazardous material (i.e., hazard class or division assignment).

Primary receptacle is the innermost container (i.e., tube, vial, bottle, vessel) that holds the hazardous material. Sometimes the primary receptacle may be referred to as the inner receptacle or the primary container.

Proper shipping name is the name of a hazardous material that must be used to identify a substance or article in the shipping documents and on the packaging, as required. See Appendix A and Appendix B for listings of proper shipping names.

psi means pounds per square inch.

psia means pounds per square inch absolute.

psig means pounds per square inch gauge.

Pyrophoric material is a liquid or solid that, even in a small amount and without an external ignition source, can ignite within 5 minutes after coming in contact with air.

Radiation level means the radiation dose-equivalent rate expressed in millisievert per hour (mSv/h) or millirem per hour (mrem/h).

Radioactive instrument or article means any manufactured instrument or article, such as an instrument, clock, electronic tube or apparatus, or similar item, having a Class 7 radioactive material in gaseous or nondispersible solid form as a component part.

Radioactive material is defined in 49 CFR § 173.403 as any material containing radionuclides where both the activity concentration and the total activity in the consignment exceed the values specified in the table in 49 CFR § 173.436 or values derived according to the instructions in 49 CFR § 173.433. Activity limits for mailable Class 7 radioactive materials are listed in Exhibit 347.23.

Regulated medical waste is the DOT term for a Division 6.2 waste or reusable material, other than a culture or stock of an infectious substance, that may or may not contain an infectious substance and is generated from: the diagnosis, treatment, or immunization of human beings or animals; research pertaining to the diagnosis, treatment, or immunization of human beings or animals; or the production or testing of biological products. Only the types of medical waste named in 346 are mailable.

Reportable quantity (RQ) mean the minimum amount of a hazardous substance that is subject to the additional marking and documentation requirements in Appendix A of 49 CFR § 172.101. A hazardous material having an RQ is nonmailable.

Residue means the hazardous material remaining in a packaging after the contents have been unloaded to the maximum extent practicable and before the packaging is either cleaned, refilled, or properly disposed of.

Rigid means unable to bend or be forced out of shape; not flexible. A rigid outer shipping container or rigid packaging is generally interpreted to mean a fiberboard (cardboard) box or outer packaging of equivalent strength, durability and rigidity.

Safety Data Sheet (SDS) is a document that details the physical characteristics and health hazards of a chemical or hazardous product. In 29 CFR § 1910.1200(g), OSHA requires chemical manufacturers, distributors, and importers to provide SDSs to communicate the hazards of hazardous chemicals they produce or import, and provide copies to their customers. OSHA also requires that employers have an SDS on hand for each hazardous chemical present in their workplace. For postal purposes, the information on an SDS can be useful in determining the mailability of a hazardous material.

Salvage packaging is a special form of packaging into which damaged, defective, or leaking hazardous materials packages are placed for purposes of recovery or disposal. Salvage packaging must meet the specifications in 49 CFR § 173.3.

Secondary packaging container is the packaging component into which the primary receptacle(s) and any required absorbent and cushioning material is securely placed. The packaging of certain mailable hazardous materials requires the use of a secondary container. The secondary packaging container is then secured in an outer shipping container.

Self-heating material is a material that, when in contact with air and without an energy supply, is liable to self-heat and may spontaneously ignite.

Sharps is a Division 6.2 material that includes any item of medical waste having a projecting cutting edge or fine point that was used in animal or human patient care or treatment or in medical research or industrial laboratories. The term includes, but is not limited to, hypodermic needles, syringes (with or without the attached needles), pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes (regardless of the presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides or cover slips. The term does not include new unused medical devices such as hypodermic needles, syringes, and scalpel blades.

Shipping Documentation refer to Shipping Paper (for surface transportation) or Shipper's Declaration for Dangerous Goods (for air transportation).

Shipping Paper The shipping order, bill of lading, manifest, or other shipping document used in surface transportation that contains the information

required by 49 CFR §172.200 through 172.204. *The Packaging Instructions* in Appendix C specify when a shipping paper is required.

Refer also to Shipping Documentation and Shipper's Declaration for Dangerous Goods.

Shipper's Declaration for Dangerous Goods Most hazardous materials sent via air transportation require a Shipper's Declaration for Dangerous Goods. The Packaging Instructions in Appendix C specify when a shipper's declaration is required.

Refer also to Shipping Documentation and Shipping Paper.

Siftproof packaging means a packaging that is impermeable to dry contents, including any fine solid material produced during transportation.

Small quantity is the maximum amount of a specific hazardous material that is not subject to any requirements other than those in 49 CFR § 173.4. Not every hazardous material is eligible to be shipped as a small quantity. The small quantity provision is recognized for use within the United States only. A hazardous material cannot be sent in international mail using the small quantity provision.

Solid is a material that is not a liquid or a gas.

Solution is any homogeneous liquid mixture of two or more chemical compounds or elements that will not undergo any segregation under normal transportation conditions.

Specific activity refers to the activity of the radionuclide per unit mass of that nuclide for a Class 7 material.

Specification packaging means a packaging conforming to one of the specifications or standards in 49 CFR § 178 and 179. ORM-D materials do not require specification packaging (but they must meet postal packaging requirements).

Spontaneously combustible material is a pyrophoric or a self-heating material that is capable of spontaneous ignition.

Subsidiary hazard means a hazard characteristic, other than the primary hazard, present in a hazardous material that is of lesser significance than the primary hazard.

Surface transportation requirements apply to all mailable hazardous materials sent at the Parcel Select Lightweight or USPS Ground Advantage prices and must meet the requirements that apply to surface transportation.

TBq means terabecquerel.

Toxic Gas A Division 2.3 material that is poisonous by inhalation and is a gas at 68° F (20° C) or less and a pressure of 14.7 psi (101.3 kPa); or a material that has a boiling point of 68° F (20° C) or less at 14.7 psi (101.3 kPa).

Toxic Substance A material, other than a gas, that is known to be so toxic to humans as to cause death, injury, or harm to health if swallowed, inhaled, or contacted by the skin. Refer to 346 for information on toxicity levels.

UN Number The United Nations (UN) four-digit identification number assigned to a hazardous material that is recognized for use in international and domestic commerce and transportation.

UN Standard Packaging A packaging that conforms to the standards in the UN Recommendations on the Transport of Dangerous Goods.

Viscosity The tendency of a fluid to resist internal flow without regard to its density.

Volatility The relative rate of evaporation of materials to assume a vapor state at ordinary temperatures.

Water Reactive Material, Refer to Dangerous When Wet Material.

Water Resistant Having a degree of resistance to permeability and damage caused by water.

Appendix E

Related Documents

Postal Service Publications and Reference Materials

- *Mailing Standards of the United States Postal Service*, Domestic Mail Manual (DMM®).
- *Mailing Standards of the United States Postal Service*, International Mail Manual (IMM®).
- *Postal Operations Manual* (POM).
- *Administrative Support Manual (*ASM).
- Publication 14, *Prohibitions and Restrictions on Mailing Animals, Plants, and Related Matter.*
- Handbook EL-812, *Hazardous Materials and Spill Response.*
- Aviation Mail Security, *Management Instructions.*
- Notice 107, *Let's Keep the Mail Safe.*
- Poster 298, *DOT Hazardous Materials Warning Labels and Markings.*
- Poster 702, *Dangerous Goods Warning Labels Prohibited in International Mail*.

Other Publications

- Title 18 of the United States Code (U.S.C.) 921, 1715, 1716 (18 U.S.C. 921, 1715, 1716).
- 39 U.S.C. 3001 (nonmailable matter).
- 21 U.S.C. 801–830 (drugs).
- Title 29 *Code of Federal Regulations* (29 CFR), Occupational Safety and Health Administration (OSHA), U.S. Department of Labor.
- 42 CFR, Department of Health and Human Services (HHS), Centers for Disease Control and Prevention (CDC).
- 49 CFR, Parts 100–185, U.S. Department of Transportation (DOT).
- International Civil Aviation Organization (ICAO), *Technical Instructions for the Safe Transport of Dangerous Goods by Air.*
- International Air Transport Association (IATA), *Dangerous Goods Regulations.*

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Appendix F

Alaska Routes Serviced by Air Transportation Only

The following ZIP Codes in Alaska are only serviced by air transportation:

99545, 99546, 99547, 99548, 99549, 99550, 99551, 99552, 99553, 99554, 99555, 99557, 99558, 99559, 99561, 99563, 99564, 99565, 99569, 99571, 99574, 99575, 99576, 99578, 99579, 99580, 99581, 99583, 99585, 99589, 99590, 99591, 99602, 99604, 99606, 99607, 99608, 99609, 99612, 99613, 99614, 99615, 99619, 99620, 99621, 99622, 99624, 99625, 99626, 99627, 99628, 99630, 99632, 99633, 99634, 99636, 99637, 99638, 99640, 99641, 99643, 99644, 99647, 99648, 99649, 99650, 99651, 99653, 99655, 99656, 99657, 99658, 99659, 99660, 99661, 99662, 99663, 99665, 99666, 99667, 99668, 99670, 99671, 99675, 99677, 99678, 99679, 99680, 99681, 99682, 99684, 99685, 99689, 99690, 99691, 99692, 99695, 99697, 99720, 99721, 99722, 99723, 99724, 99726, 99727, 99730, 99732, 99733, 99734, 99736, 99738, 99739, 99740, 99741, 99742, 99745, 99746, 99747, 99748, 99749, 99750, 99751, 99752, 99753, 99754, 99756, 99757, 99758, 99759, 99761, 99762, 99763, 99765, 99766, 99767, 99768, 99769, 99770, 99771, 99772, 99773, 99774, 99777, 99778, 99781, 99782, 99783, 99784, 99785, 99786, 99788, 99789, 99790, 99791, 99801, 99802, 99803, 99811, 99812, 99820, 99821, 99824, 99825, 99826, 99827, 99829, 99830, 99832, 99833, 99835, 99836, 99840, 99841, 99850, 99901, 99903, 99918, 99919, 99921, 99922, 99923, 99925, 99926, 99927, 99928, 99929, 99950.

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Appendix G

Hazardous Materials Service Type Codes (STCs) and Extra Service Codes (ESCs)

This appendix contains a complete list of Service Type Codes (STCs) and Extra Service Codes (ESCs) to be applied within the tracking barcodes and electronic data submission for shipments containing hazardous materials or dangerous goods (refer to 323.2 and 323.3):

STCs Domestic Outbound (Required)

The following STCs are required when shipping domestic hazardous materials, unless an STC from the "STCs Domestic Outbound (Optional)" table is used:

760	Priority Mail Express Signature Waived – Hazardous Materials
116	Priority Mail USPS Tracking – Hazardous Materials
184	USPS Ground Advantage (up to 15.999 oz.) USPS Tracking – Hazardous Materials
362	USPS Ground Advantage One Pound or More USPS Tracking - Hazardous Materials
395	Parcel Select USPS Tracking – Hazardous Materials

Note: This list may change. Refer to the current list published at https://postalpro.usps.com/pub199.

G01 STCs Domestic Outbound (Optional)

The following STCs are optional but are permitted to be used when shipping hazardous materials if the corresponding extra service is purchased:

761	Priority Mail Express Signature Requested – Hazardous Materials
762	Priority Mail Express with Insurance – Hazardous Materials
763	Priority Mail Express with Insurance Restricted Delivery – Hazardous Materials
764	Priority Mail Express Adult Signature Over 21 – Hazardous Materials
120	Priority Mail Insurance <= $500 – Hazardous Materials
323	Priority Mail Insurance > $500 – Hazardous Materials
075	Priority Mail Adult Signature Over 21 – Hazardous Materials
063	Priority Mail Signature Confirmation Hazardous Materials
185	USPS Ground Advantage (up to 15.999 oz.) Insurance <= $500 – Hazardous Materials

186	USPS Ground Advantage (up to 15.999 oz.) Insurance > $500 – Hazardous Materials
363	USPS Ground Advantage (one pound or more) Insurance <= $500 - Hazardous Materials
365	USPS Ground Advantage (one pound or more) Insurance > $500 - Hazardous Materials
166	USPS Ground Advantage (up to 15.999 oz.) Signature Confirmation - Hazardous Materials
383	USPS Ground Advantage One Pound or More Signature Confirmation Hazardous Materials
483	Parcel Select Insurance <= $500 - Hazardous Materials
628	Parcel Select Insurance > $500 - Hazardous Materials
646	Parcel Select Signature Confirmation Hazardous Materials

Note: This list may change. Refer to the current list published at https://postalpro.usps.com/pub199.

G02 STCs Domestic Returns (Required)

The following STCs for domestic hazardous materials returns packages are required, unless an STC from the "STCs Domestic Returns (Optional)" table is used:

187	USPS Ground Advantage Returns (up to 15.999 oz.) Insurance – Hazardous Materials
385	USPS Ground Advantage (one pound or more) – Hazardous Materials
037	Priority Mail Return Service - Hazardous Materials
217	USPS Ground Advantage Returns (up to 15.999 oz.) – Division 6.2 Hazardous Materials
218	USPS Ground Advantage Returns (one pound or more) – Division 6.2 Hazardous Materials
219	Priority Mail Return Service – Division 6.2 Hazardous Materials

Note: This list may change. Refer to the current list published at https://postalpro.usps.com/pub199.

G03 STCs Domestic Returns (Optional)

The following STCs are optional for domestic hazardous materials returns packages unless the applicable Extra Service is selected:

190	USPS Grounds Advantage Returns (up to 15.999 oz.) Insurance <= $500 – Hazardous Materials
191	USPS Ground Advantage Returns (up to 15.999 oz.) Insurance > $500 – Hazardous Materials
388	USPS Ground Advantage Returns (one pound or more) Insurance <= $500 – Hazardous Materials
399	USPS Ground Advantage Returns (one pound or more) Insurance > $500 – Hazardous Materials
515	Priority Mail Return Service Insurance <= $500 – Hazardous Materials
517	Priority Mail Return Service Insurance > $500 – Hazardous Materials

ESCs Domestic (Optional)

The following is a list of category-specific ESCs that may be used in conjunction with an STC if the mailer chooses:

810	Air Eligible Ethanol Package
811	Class 1 – Toy Propellant/Safety Fuse Package
812	Class 3 – Flammable Liquid Package
813	Class 7 – Radioactive Materials Package
814	Class 8 – Corrosive Materials Package
815	Class 8 – Nonspillable Wet Battery Package
816	Class 9 – Lithium Battery Marked – Ground Only Package
817	Class 9 – Lithium Battery – Returns Package
818	Class 9 – Lithium batteries, marked package
819	Class 9 – Dry Ice Package
820	Class 9 – Lithium batteries, unmarked package
821	Class 9 – Magnetized Materials Package
822	Division 4.1 – Flammable solids and Safety Matches Package
823	Division 5.1 – Oxidizers Package
824	Division 5.2 – Organic Peroxides Package
825	Division 6.1 – Toxic Materials Package
826	Division 6.2 – Infectious Substances Package
827	Excepted Quantity Provision Package
828	Ground Only Hazardous Materials
829	ID8000 Consumer Commodity Package
830	Lighters Package
831	LTD QTY Ground Package
832	Small-Quantity Provision Package

ESCs Domestic and International, including APO/FPO/DPO (Required)

The following ESCs must be provided for all shipments containing hazardous materials or dangerous goods:

857	Hazardous Materials

ESCs International and APO/FPO/DPO (Required)

The following is a list of ESCs required for use in the mailers Shipping Service File, when tendering the following dangerous goods internationally with the Postal Service:

813	Class 7 – Radioactive Materials Package
820	Class 9 – Lithium batteries, unmarked package*
826	Division 6.2 – Infectious Substances Package

* The batteries must be installed in the equipment being shipped and must not bear markings or labels identifying the contents as lithium batteries.

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Note: Any item with an asterisk (*) is *NONMAILABLE* under any conditions.

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