

**DEPARTMENT OF TRANSPORTATION****Research and Special Programs Administration****49 CFR Parts 171, 172, 173, 175, 176, 178 and 180**

[Docket No. RSPA-2002-13658 (HM-215E)]

RIN 2137-AD41

**Harmonization with the United Nations Recommendations, International Maritime Dangerous Goods Code, and International Civil Aviation Organization's Technical Instructions****AGENCY:** Research and Special Programs Administration (RSPA), DOT.**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** RPSA is proposing to amend the Hazardous Materials Regulations (HMR) to maintain alignment with international standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations and vessel stowage requirements. Because of recent changes to the International Maritime Dangerous Goods Code (IMDG Code), the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions), and the United Nations Recommendations on the Transport of Dangerous Goods (UN Recommendations), these revisions are necessary to facilitate the transport of hazardous materials in international commerce.

**DATES:** With the exception of incorporation by reference materials, comments must be received by February 3, 2003.

Comments for the incorporation by reference of publications listed in § 171.7 must be received by January 2, 2003.

**ADDRESSES:** Address your comments to the Dockets Management System, U.S. Department of Transportation, 400 Seventh St., SW., Room PL 401, Washington, DC 20590. Comments must identify Docket Number RSPA-2002-13658 (HM-215E). If you wish to receive confirmation of receipt of your comments, include a self-addressed, stamped postcard. You may also submit and review all comments by accessing the Dockets Management System's Website at <http://dms.dot.gov>. The Dockets Management System is located on the Plaza Level of the Nassif Building at the above address. You may view public

dockets between the hours of 9 a.m. and 5 p.m., Monday through Friday, except on federal holidays. Comments received after the comment closing date will be filed in the docket and considered to the extent practicable. Comments should include relevant data, factual information, and justification for any requested actions.

**FOR FURTHER INFORMATION CONTACT:** Joan McIntyre, Office of Hazardous Materials Standards, telephone (202) 366-8553, or Shane Kelley, International Standards, telephone (202) 366-0656, Research and Special Programs Administration, U.S. Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590-0001.

**SUPPLEMENTARY INFORMATION:****I. Background**

On December 21, 1990, RSPA ("we") published a final rule (Docket HM-181; 55 FR 52402) based on the United Nations Recommendations on the Transport of Dangerous Goods (UN Recommendations), which comprehensively revised the Hazardous Materials Regulations (HMR), 49 CFR Parts 171 to 180, for harmonization with international standards. Since publication of the 1990 final rule, we have issued four additional international harmonization final rules, (Dockets HM-215A, 59 FR 67390; HM-215B, 62 FR 24690; HM-215C, 64 FR 10742; and HM-215D, 66 FR 33316). The rules provided additional harmonization with international transportation requirements by more fully aligning the HMR with the corresponding biennial updates of the UN Recommendations, the International Maritime Dangerous Goods Code (IMDG Code) and the International Civil Aviation Organization's Technical Instructions (ICAO Technical Instructions).

The UN Recommendations are not regulations, but rather are recommendations issued by the UN Committee of Experts on the Transport of Dangerous Goods. These recommendations are amended and updated biennially by the UN Committee of Experts. They serve as the basis for National, regional, and international modal regulations; specifically, the IMDG Code issued by the International Maritime Organization (IMO), and the ICAO Technical Instructions issued by the ICAO Dangerous Goods Panel. In 49 CFR 171.12, the HMR authorize domestic transportation of hazardous materials shipments prepared in accordance with the IMDG Code if all or part of the transportation is by vessel, subject to

certain conditions and limitations. In § 171.11, subject to certain conditions and limitations, the HMR authorizes the offering, acceptance and transport of hazardous materials by aircraft, and by motor vehicle either before or after being transported by aircraft, provided the shipment is in accordance with the ICAO Technical Instructions.

The continually increasing amount of hazardous materials transported in international commerce warrants the harmonization of domestic and international requirements to the greatest extent possible. Harmonization serves to facilitate international transportation and at the same time ensures the safety of people, property and the environment. While the intent of the harmonization rulemakings is to align the HMR with international standards, we review and consider each amendment on its own merit. Each amendment is considered on the basis of the overall impact on transportation safety and the economic implications associated with its adoption into the HMR. Our goal is to harmonize without sacrificing the current HMR level of safety and without imposing undue burdens on the regulated public. In our efforts to continue to align the HMR with international requirements, this notice of proposed rulemaking (NPRM) proposes changes to the HMR based on the twelfth revised edition of the UN Recommendations, Amendment 31 to the IMDG Code, and the 2003-2004 ICAO Technical Instructions, which become effective January 1, 2003. Petitions for rulemaking concerning harmonization with international standards and the facilitation of international transportation are also addressed in this NPRM and serve as the basis of certain proposed amendments. Other proposed amendments are based on feedback from the regulated industry, other DOT modal administrations and our initiative. Also included are various proposed editorial clarifications. Unless otherwise stated, the proposed revisions are for harmonization with international standards.

**II. Overview of Changes in this NPRM**

Proposed amendments to the HMR in this NPRM include, but are not limited to the following:

—Amendments to the Hazardous Materials Table (HMT) which would add, revise or remove certain proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, bulk packaging requirements, passenger and cargo aircraft maximum quantity

- limitations and vessel stowage provisions.
- Amendments to the List of Marine Pollutants.
- Revisions and additions of special provisions. Included is the addition of a special provision for assignment to aerosol entries setting forth the criteria for classifying aerosols.
- Addition of a requirement to enter the subsidiary hazard class or subsidiary division number on shipping papers.
- Addition of a requirement to indicate types of packagings on shipping papers.
- Addition of an alternative basic description sequence on shipping papers.
- Revision of marking requirements for limited quantities.
- Addition of an air eligibility marking requirement.
- Revision of requirements in § 173.27 for packagings intended for transportation by aircraft, including revision of requirements for use of absorbent material for such packagings.
- Revision of classification of air bag modules, air bag inflators and seat-belt pretensioners from Division 2.2 to Class 9.
- Revision of the non-liquefied and liquefied compressed gases descriptions, and the addition of high pressure and low pressure liquefied gases categories.
- Revisions and additions to the Self-Reactive Materials Table.
- Revisions and additions to the Organic Peroxide Table.
- Revision of the net weight restrictions for explosives in freight containers exceeding 20 feet (6 m) in length.

### III. Summary of Regulatory Changes by Section

#### Part 171

*Section 171.7.* We are proposing to update the incorporation by reference materials for the ICAO Technical Instructions, the IMDG Code and the UN Recommendations. The updated editions of these standards become effective January 1, 2003. Additionally, the International Maritime Organization (IMO) recommends authorizing a one-year transition period, with a delayed compliance date of January 1, 2004, for the use of the updated edition (Amendment 31) of the IMDG Code. We are also proposing to authorize use of either Amendment 30 or Amendment 31 of the IMDG Code until January 1, 2004.

The standards would be updated as follows:

- The ICAO Technical Instructions, 2003–2004 edition.

- The IMDG Code, Amendment 31.
- The UN Recommendations, twelfth edition.

We are also proposing to add an IMO standard titled “International Convention for the Safety of Life at Sea,” 1974, as amended, Chapter II–2/Regulation 19, for incorporation into proposed § 176.63 to address hatchless container ship requirements.

Because the updated editions of the international standards become effective January 1, 2003, we are proposing a 30-day comment period for these proposed amendments only. Consistent with our previous harmonization (HM–215 docket numbers) rulemakings, our intent is to publish a separate final rule authorizing the use of these standards by January 1, 2003. This action will authorize compliance with the updated standards when they become effective, and is necessary to prevent disruption of hazardous materials shipments that are being transported internationally.

*Section 171.8.* In the definition for “Large packaging,” we are proposing to add the words “Chapter 6.6” to let readers know the location in the UN Recommendations for the construction, testing and marking of such packagings.

*Section 171.11.* We are proposing to revise paragraphs (c), (d)(5) and (d)(17) to address certain limitations for the use of the ICAO Technical Instructions.

In paragraph (c), for hazardous materials being transported in accordance with the ICAO Technical Instructions, the restrictions for the use of the Instructions would be revised to include hazardous materials that are forbidden by passenger and cargo aircraft, as designated in Columns (9A) and (9B) of the § 172.101 HMT. Currently, the paragraph restricts materials that are forbidden according to § 173.21 and Column (3) of the HMT.

In paragraph (d)(5), we are proposing to remove the wording “except for Division 2.2” regarding shipping paper requirements for air bag inflators, air bag modules and seat-belt pretensioners. This proposal is consistent with the proposed removal of the Division 2.2 air bag inflator, air bag module and seat-belt pretensioner entry in the HMT (see § 172.101).

Paragraph (d)(17) would be revised to clarify a current requirement that in addition to organic peroxides, self-reactive substances not specifically identified by name in § 173.224(b) also must be approved by the Associate Administrator in accordance with the requirements in § 173.124(a)(2)(iii).

*Section 171.12.* We are proposing to revise paragraphs (b)(3), (b)(5), (b)(19), and (b)(20).

In paragraph (b)(3), we are proposing to remove certain viscous flammable liquids as an example of a material designated as a hazardous material subject to the HMR, but not subject to the IMDG Code. The IMO removed the exception in Amendment 31 to the IMDG Code.

In paragraph (b)(5), we are proposing to make an editorial revision by removing a redundant and confusing phrase.

In paragraph (b)(19), we are proposing to remove the wording “except for Division 2.2” regarding shipping paper requirements for air bag inflators, air bag modules and seat-belt pretensioners. This proposal is consistent with the proposed removal of the Division 2.2 air bag inflator, air bag module and seat-belt pretensioner entry in the HMT (see § 172.101).

In paragraph (b)(20), we are proposing to clarify a current requirement that in addition to organic peroxides, self-reactive substances not specifically identified by name in § 173.224(b) must also be approved by the Associate Administrator in accordance with the requirements in § 173.124(a)(2)(iii).

For the readers’ information, recently adopted amendments to the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended, will change the status of the use of the IMDG Code, effective January 1, 2004, from recommended to mandatory for international transportation by vessel. This issue will be addressed under a separate rulemaking.

*Section 171.12a.* We are proposing to revise paragraph (b)(18) by clarifying a current requirement that in addition to organic peroxides, self-reactive substances not specifically identified by name in § 173.224(b) also must be approved by the Associate Administrator in accordance with the requirements in § 173.124(a)(2)(iii).

*Section 171.14.* We are proposing to revise paragraphs (d), (d)(1), (d)(2), (d)(4), and (d)(5) and add paragraph (d)(6). Paragraphs (d) and (d)(1) would be revised to authorize a delayed implementation date for the proposed amendments in this NPRM. We are proposing an effective date of October 1, 2003, and a voluntary compliance date of January 1, 2003 to correspond with the effective implementation dates of the 2003–2004 ICAO Technical Instructions and Amendment 31 of the IMDG Code. This authorization would allow shippers to prepare their international shipments in accordance with international standards that will become effective on January 1, 2003. We are proposing to authorize a delayed

compliance date of October 1, 2004, which is comparable to the transition provisions provided in the final rule published under Docket HM-215D. The delayed mandatory compliance date would offer sufficient time to implement the new requirements.

Paragraph (d)(2) would be revised to authorize certain intermixing of old and new requirements.

Paragraph (d)(4) would be revised to include DOT Specification 51 portable tanks in the provision to allow, until January 1, 2010, conformance with the T Codes (Special Provisions) in effect on September 30, 2001.

Paragraph (d)(5) would be revised by extending the October 1, 2005 compliance date allowing proper shipping names that included the word "inhibited" prior to the June 21, 2001 final rule, HM-215D, to continue to be shown on packagings in place of the word "stabilized" until October 1, 2007. Additionally, the October 1, 2007 date would also apply to the proper shipping names in this NPRM that are proposed to be revised by removing the word "compressed" (see § 172.101, HMT).

Paragraph (d)(6) would be added to authorize, until October 1, 2005, the marking of certain other proper shipping names on packagings. The proper shipping names would be those that are proposed to be revised to include the position identifiers of the substituents, such as 2-Ethylbutyl acetate (see § 172.101, HMT).

#### Part 172

**Section 172.101.** In the regulatory text preceding the Hazardous Materials Table, we are proposing the following changes:

Paragraph (c)(15) would be revised by removing the words "of inorganic substances." Currently, unless a hydrate is specifically listed in the HMT, only hydrates of inorganic substances may be identified using the proper shipping name for the equivalent anhydrous substance, provided the hydrates meet the same hazard class, division, subsidiary risk(s) and packaging group. With the removal of the phrase "of inorganic substances," paragraph (c)(15) would apply to all hydrates.

§ 172.101 *The Hazardous Materials Table (HMT).* We are proposing to make various amendments to the HMT. Readers should review all changes for a complete understanding of the proposed Table amendments. For purposes of the Government Printing Office's typesetting procedures, proposed changes to the HMT will appear under three sections of the Table, "remove," "add" and "revise." Certain entries in the HMT, such as those with proposed

revisions to the proper shipping names, will appear as a "remove" and "add." Proposed amendments to the HMT for the purpose of harmonizing with international standards, unless otherwise stated, include, but are not limited to the following:

- "*Accumulators, pressurized, pneumatic or hydraulic (containing non-flammable gas), see Articles, pressurized, pneumatic or hydraulic (containing non-flammable gas)*" would be added as a "see" entry into the HMT to aid the reader in locating the updated entry. This proposed action is based on feedback we received from users of the HMR after we removed the domestic entry ("Accumulators, pressurized, pneumatic," UN1956), as well as certain other domestic entries from the HMT in a final rule, HM-215D (66 FR 33316), published June 21, 2001. The entries were removed because we determined that they were no longer necessary considering the HMT already includes equally appropriate international entries. (Also see § 173.306(f) for a related editorial revision.)
- "Air bag inflators, compressed gas or Air bag modules, compressed gas or Seat-belt pretensioners, compressed gas," Division 2.2, UN3353 would be removed. All air bag inflators, air bag modules and seat-belt pretensioners currently classified as Division 2.2 would be reclassified as Class 9. A provision to allow this reclassification without further testing is also being proposed for incorporation into the HMR (see § 173.166). In line with the proposed removal of this entry, Special Provision 133 would also be removed. We are aware that removal of the UN3353 entry will require repackaging, remarking and relabeling of all compressed gas air bag assemblies. We believe that the delayed mandatory compliance date of October 1, 2004 and the transitional provisions proposed in § 171.14(d)(2), authorizing certain intermixing of old and new requirements, will offer sufficient time and flexibility to implement the new requirements and reduce the costs of meeting this requirement.
- "Air bag inflators, *pyrotechnic* or Air bag modules, *pyrotechnic* or Seat-belt pretensioner, *pyrotechnic*" UN0503, Division 1.4G, would be amended by adding an "I" in Column (1), removing the word "pyrotechnic" from the proper shipping names in Column (2), revising Columns (8A) and (8C) to read "None," revising Column (8B) to read "\$ 173.62" (also see § 173.62), adding proposed Special Provision 161 (see § 172.102), and revising the vessel stowage columns (10A) and (10B). We are proposing to add the "I" in Column (1) because we do not agree that an air bag that meets the criteria for a Division 1.4G explosive should be transported under an air bag description for domestic transportation. We believe that a more appropriate name is "Articles, pyrotechnic for technical purposes," UN0431. We are not aware of any air bags that have been shown through testing to meet a Division 1.4G classification for transport in the United States.
- "Air bag inflators, *pyrotechnic* or Air bag modules, *pyrotechnic* or Seat-belt pretensioner, *pyrotechnic*," UN3268, Class 9, would be amended by removing the optional word "pyrotechnic" and adding proposed Special Provision 160 (see § 172.102).
- "Ammonium nitrate, with not more than 0.2 percent combustible material, including any organic substance, calculated as carbon to the exclusion of any other added substance," UN1942 would be amended by editorially correcting the italicized portion of the proper shipping name by adding the word "total" after "0.2 %."
- "Ammonium nitrate based fertilizers," UN2071, and "Ammonium nitrate based fertilizers," UN2067 would be amended by removing the italicized portion of the proper shipping names, adding proposed new Special Provision 150 to the UN2067 entry, and revising Special Provision 132 which applies to the UN2071 entry (see § 172.102 for Special Provision amendments).
- "Ammonium nitrate fertilizers," NA2072 and "Ammonium nitrate mixed fertilizers," NA2069 would be removed. We believe that the international entry "Ammonium nitrate fertilizers," UN2067 can be used in place of the domestic entries which do not provide any additional exceptions.
- A new entry, "Ammonium nitrate emulsion or Ammonium nitrate gel, intermediate for blasting explosives," UN3375 (also see § 172.102, Special Provisions 52 and 147) would be added.
- For the entry "Calcium hypochlorite, hydrated or Calcium hypochlorite, hydrated mixtures, with not less than 5.5 percent but not more than 10 percent water," UN2880, the wording "not more than 10 percent water"

- would be revised to read “*not more than 16 percent water.*”
- Four proper shipping names would be revised by adding the position identifiers of the substituents. The proper shipping names are “Diethylaminopropylamine,” position identifier “3”; “Dimethylcyclohexylamine,” position identifiers “N,N”; “Ethylbutyl acetate,” position identifier “2”; “Propyl chloride” which would be replaced by “1-Chloropropane,” and “Tetrachloroethane,” position identifiers “1,1,2,2.” Also, see § 171.14(d)(6) for the proposed continued use provision of these proper shipping names.
  - The entry “Hydrazine hydrate or Hydrazine aqueous solutions, *with not less than 37 percent but not more than 64 percent hydrazine, by mass,*” UN2030 and “Hydrazine, anhydrous or Hydrazine aqueous solutions *with more than 64 percent hydrazine, by mass,*” UN2029 would be removed and “Hydrazine aqueous solution, *with more than 37% hydrazine, by mass,*” UN2030 and “Hydrazine, anhydrous,” UN2029 would be added.
  - Eleven entries would be revised by removing the qualifying word “compressed.” This action is consistent with the revisions to proper shipping names for compressed and liquefied gases that were incorporated into the twelfth edition of the UN Recommendations and which we are proposing to adopt into the HMR (see § 173.115 for additional discussion). The eleven entries are “Boron trifluoride, compressed,” UN1008; “Carbonyl fluoride, compressed,” UN2417; “Diborane, compressed,” UN1911; “Ethylene, compressed,” UN1962; “Hexafluoroethane, compressed or Refrigerant gas R 116,” UN2193; “Nitrogen trifluoride, compressed,” UN2451; “Phosphorus pentafluoride, compressed,” UN2198; “Silane, compressed,” UN2203; “Silicon tetrafluoride, compressed,” UN1859; “Tetrafluoromethane, compressed or Refrigerant gas R 14,” UN1982; and “Xenon, compressed,” UN2036. Also, see § 171.14(d)(6) for the proposed continued use provision of these proper shipping names.
  - For the proper shipping name “Lighters or Lighter refills *cigarettes, containing flammable gas,*” UN1057, the word “cigarettes” would be removed.
  - The proper shipping name “Lithium hydroxide, monohydrate or Lithium hydroxide, solid,” UN2680 would be revised to read “Lithium hydroxide.”
  - For the entry “Medicine, liquid, toxic, n.o.s.,” UN1851, we propose to add Special Provision 36. The special provision, which limits the maximum net quantity per package at 5 L (1 gallon) for liquids and 5 kg (11 pounds) for solids, is currently assigned to “Medicine, liquid, flammable, toxic, n.o.s.,” UN3248 and “Medicine, solid, toxic, n.o.s.,” UN3249.
  - For the entry “Motor fuel anti-knock mixtures,” UN1649, we propose to remove the subsidiary risk hazard from the labeling requirement, and add proposed Special Provision 151. This action is based on a petition for rulemaking (P-1420) we received (see discussion under § 172.102).
  - The proper shipping name “Uranium nitrate hexahydrate solution,” UN2980 would be corrected by replacing the word “Uranium” with “Uranyl.” The typographical error occurred in the April 3, 2002 document published in the **Federal Register** (67 FR 15736).
  - The entry “Xylidines, solution,” UN1711 would be revised to read “Xylidines, liquid.”
  - In addition to those entries identified above, we are proposing to add the following new entries: “Chlorosilanes, toxic, corrosive, n.o.s.,” UN3361; “Chlorosilanes, toxic, corrosive, flammable, n.o.s.,” UN3362; “Ethylene glycol diethyl ether,” UN1153; “Fibers, animal or fibers, vegetable *burnt, wet or damp,*” UN1372; “Fibers, vegetable, dry,” UN3360; “4-Nitrophenylhydrazine, *with not less than 30% water, by mass,*” UN3376; “Organometallic compound, solid, water-reactive, flammable, n.o.s.,” UN3372; “Rags, oily,” UN1856; “Rubber scrap or Rubber shoddy, *powdered or granulated, not exceeding 840 microns and rubber content exceeding 45%,*” UN1345; “Sodium dinitro-*o*-cresolate, *wetted, with not less than 10% water by mass,*” UN3369; “Textile waste, wet,” UN1857; “Trinitrobenzene, *wetted, with not less than 10% water by mass,*” UN3367; “Trinitrobenzoic acid, *wetted, with not less than 10% water by mass,*” UN3368; “Trinitrochlorobenzene (picryl chloride), *wetted, with not less than 10% water by mass,*” UN3365; “Trinitrophenol (picric acid), *wetted, with not less than 10% water by mass,*” UN3364; “Trinitrotoluene (TNT), *wetted, with not less than 10% water by mass,*” UN3366 and “Wool waste, wet,” UN1387.
  - Various entries would be amended by revising the vessel stowage columns (10A) and/or (10B). The entries include the following: the five “Aerosols,” UN1950 entries; “Ammunition, *smoke with or without burster, expelling charge or propelling charge,*” UN0303; “Battery fluid, alkali,” UN2797; “Methacrylic acid, stabilized,” UN2531; “Sulfur, molten,” UN2448; and “Urea, nitrate, *wetted with not less than 20 percent water, by mass,*” UN1357.
- Also, see § 172.102 for additional HMT amendments.
- Appendix B to § 172.101.* In Appendix B to § 172.101, List of Marine Pollutants, we are proposing to revise paragraphs “4” and “5” to update the location in the IMDG Code for the “Guidelines for the Identification of Harmful Substances in Packaged Form.” This update is based on the IMDG Code’s change in location from the General Introduction to Chapter 2.10.
- In addition, we are removing the entries “Alkylphenols, liquid, n.o.s. (*including C2–C12 homologues,*)” “Alkylphenols, solid, n.o.s. (*including C2–C12 homologues,*)” “Chlorophenols, liquid,” and “Chlorophenols, solid,” from the List of Marine Pollutants. We are revising the entry “Alkylbenzenesulphonates, branched and straight chain” by adding a qualifying phrase to clarify that C11-C13 straight chain or branched chain homologues are not regulated as marine pollutants. Finally, we are adding the entry “Decyl acrylate.”
- Section 172.102.* We are proposing to amend § 172.102, Special Provisions, as follows:
- Special Provisions 7 and 10 would be removed. These special provisions are assigned to the entries “Ammonium nitrate mixed fertilizers,” NA2069 and “Ammonium nitrate fertilizers,” NA2072, respectively, which we propose to remove (see § 172.101, HMT).
  - Special Provision 15, which is assigned to “Chemical kits,” UN3316 and “First aid kits,” UN3316, would be revised by removing the authorized packagings, revising them consistent with packagings authorized for limited quantity exceptions, and relocating them to § 173.161. The proposed Special Provision 15 would specify which chemical and first aid kits apply to the entries; that for transportation by aircraft, materials forbidden by air may not be included in the kits; and that kits carried on board transport vehicles for first aid or operating purposes are not subject to the HMR.
  - Special Provision 30 would be revised to include an exception from the

- placarding requirements for "Sulfur, molten" UN2448 and "Sulfur," UN1350. Currently, the domestic entries "Sulfur, molten," NA2448 and "Sulfur," NA1350 do not require placards because both entries are assigned as Class 9 materials and meet the placarding exceptions for the hazard class in § 172.504(f)(9). We are proposing to provide the same placarding exceptions for the international entries through the revision of Special Provision 30, provided the markings in § 172.325 are applied.
- Special Provision 52 would be editorially revised by removing the wording specific to fertilizers. The special provision, which is currently applied to "Ammonium nitrate fertilizers," UN2067, would be added to the proposed new entry "Ammonium nitrate emulsion or Ammonium nitrate suspension or Ammonium nitrate gel, *intermediate for blasting explosives*," UN3375. The special provision states that a material using the assigned entries may not exhibit explosive properties of Class 1 (explosive) when tested in accordance with the UN Manual of Tests and Criteria, Part I, Test Series 1 and 2.
  - Special Provision 130, which excepts dry batteries from the HMR, would be revised by adding the requirement that such batteries must be securely packed and protected against short circuits and by clarifying that dry batteries specifically named in the § 172.101 Table are not eligible for the exception.
  - Special Provision 132 would be revised by adding the criteria for which the assigned entry may be used. The special provision would be added to the proposed revised entry "Ammonium nitrate," UN2071, Class 9. Currently, the special provision provides the criteria for ammonium nitrate fertilizers that are excepted from the HMR.
  - Special Provision 133 would be removed. The special provision is currently assigned to "Air bag inflators, compressed gas or Air bag modules, compressed gas or Seat-belt pretensioners, compressed gas" UN3353, Division 2.2, which is proposed to be removed from the HMT (see discussion under § 172.101, HMT.)
  - New Special Provision 145 would be added for the existing entry "Hydrogen peroxide and peroxyacetic acids mixtures, stabilized, *with acids, water and not more than 5 percent peroxyacetic acid*," UN3149. The special provision describes the formulations for which this entry would apply.
  - New Special Provision 146 would be added for the entries "Environmentally hazardous substances, liquid, n.o.s.," UN3082 and "Environmentally hazardous substances, solid, n.o.s.," UN3077 to clarify that the entries may be used to describe materials that pose a hazard to the environment but do not meet the definition of a hazardous waste, hazardous substance or any hazard class as defined in the HMR. This includes materials or wastes that are designated as environmentally hazardous by the Competent Authority of the country of origin.
  - New Special Provision 147 would be added for assignment to the proposed new entry, "Ammonium nitrate emulsion or Suspension or Gel, *intermediate for blasting explosives*," UN3375. The special provision describes the composition of the material for which the use of the entry would be authorized and prohibits the material from being classified and transported unless approved by the Associate Administrator.
  - New Special Provision 149 would be added to the Packing Group II entries for 14 existing proper shipping names. The special provision would allow the maximum net capacity for inner packagings to be increased to no more than 5 L (1.3 gallons) when the material is transported as a limited quantity. The 14 entries are: "Adhesives, *containing a flammable liquid*," UN1133; "Coating solution (*includes surface treatments or coatings used for industrial or other purposes such as vehicle undercoating, drum or barrel lining*)," UN1139; "Extracts, aromatic, liquid," UN1169; "Extracts, flavoring, liquid," UN1197; "Printing ink, *flammable or Printing ink related material (including printing ink thinning or reducing compound)*, flammable," UN1210; "Paint including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler, and liquid lacquer base," UN1263; "Paint related material *including paint thinning, drying, removing, or reducing compound*," UN1263; "Perfumery products *with flammable solvents*," UN1266; "Rubber solution," UN1287; "Wood preservatives, liquid," UN1306; "Resin solution, *flammable*," UN1866; "Tars, liquid *including road asphalt and oils, bitumen and cut backs*," UN1999; "Alcoholic beverages," UN3065; and "Polyester resin kit," UN3269 for Packing Group II resin kits as specified in Special Provision 40.
  - New Special Provision 150 would be added for assignment to the entry "Ammonium nitrate based fertilizer," UN2067 to authorize the use of the entry for uniform mixtures containing ammonium nitrate as the main ingredient within certain composition limits.
  - New Special Provision 151 would be added for assignment to the proposed new entry "Hydrazine aqueous solution, *with more than 37% hydrazine, by mass*" UN2030, Packing Group I and to the existing entry "Motor fuel anti-knock mixtures," UN1649. The special provision requires a packaging containing a material meeting the definition of a flammable liquid to display a flammable liquid label, and requires a Class 3 subsidiary hazard to be shown on shipping papers.
- With regard to the entry "Motor fuel anti-knock mixtures," UN1649, we received a petition for rulemaking (P-1420) requesting that we remove the flammable subsidiary risk for this entry. The petitioner stated that the international standards do not assign the entry a flammable subsidiary risk and that the inconsistency with the HMR causes a regulatory compliance burden when transporting the material internationally. The petitioner stated that removing the subsidiary risk is additionally justified because motor fuel anti-knock mixtures containing tetramethyl lead, with fire points greater than 54 °C (129.2 °F) are no longer manufactured or transported. Although the UN Recommendations, the ICAO Technical Instructions and the IMDG Code do not assign a flammable subsidiary risk to the entry, all three standards assign a special provision stating that mixtures with a flashpoint of less than 60.5 °C (141 °F) must bear a flammable liquid subsidiary risk label. We are proposing to remove the flammable subsidiary risk from the label requirements in Column (6) of the HMT for "Motor fuel anti-knock mixtures," UN1649 and add a new Special Provision 151 to require a flammable liquid subsidiary label only when the mixtures have a flashpoint of less than 60.5 °C (140.9 °F). Also, see preamble text under the § 172.101 Table changes.
  - New Special Provision 153 would be added to the five "Aerosols," UN1950 entries to provide the criteria for classifying aerosols.
  - New Special Provision 155 would be added to two entries, "Fish meal, stabilized or Fish scrap, stabilized," UN2216 and "Fish meal, unstabilized

- or Fish scrap, unstabilized,” UN1374. The special provision specifies that if the temperature of fish scrap at the time of loading either exceeds 35 °C (95 °F), or exceeds 5 °C (41 °F) above the ambient temperature, whichever is higher, the fish scrap may not be transported. Also see § 173.218 for additional discussion.
- New Special Provision 156 would be added for assignment to three entries, “Blue asbestos (*Crocidolite*) or Brown asbestos (*amosite*, *mysorite*),” UN2212, “White asbestos (*chrysotile*, *actinolite*, *anthophyllite*, *tremolite*),” UN2590, and “Asbestos,” NA2212. The special provision provides an exception from the HMR for certain asbestos. The exception, which is currently in § 173.216(b), excepts asbestos immersed or fixed in a natural or artificial binder material and asbestos contained in manufactured products. We received comments that the current § 173.216 location for this exception is not appropriate because it is referenced in the non-bulk column of the HMT, leading readers to believe that the exception applies to non-bulk packagings only. To clarify that this exception applies to both non-bulk and bulk packagings, we are proposing to move the exception from § 173.216(b) to proposed Special Provision 156.
  - New Special Provision 157 would be added to the entries “Vehicle, flammable gas powered,” and “Vehicle, flammable liquid powered,” each of which is assigned to UN3166. The proposed special provision specifies that the use of the entries includes hybrid electric vehicles powered by both internal combustion engines and wet, sodium or lithium batteries.
  - New Special Provision 159 would be added to the entry “5-tert-Butyl-2,4,6-trinitro-m-xylene or Musk Xylene,” UN2956. The special provision requires this material to be protected from direct sunshine and kept in a cool, well-ventilated place away from sources of heat.
  - New Special Provision 160 would be added to the entry “Air bag inflators, or Air bag modules, or Seat-belt pretensioner,” UN3268, Class 9. The special provision includes the requirement that air bag inflators and modules must be tested in accordance with Test series 6(c) of Part I of the UN Manual of Tests and Criteria, and also includes an exception from testing air bag modules that contain an inflator previously approved for transportation. Also, see § 172.102, HMT, which includes additional proposed revisions such as removing the italicized word “pyrotechnic” from the UN3268 entry.
  - New Special Provision 161 would be added to the entry “Air bag inflators, *pyrotechnic* or Air bag modules, *pyrotechnic* or Seat-belt pretensioner, *pyrotechnic*,” UN0503, Division 1.4G. The special provision specifies that the UN0503 entry may not be used for domestic transportation, and that the more appropriate description is “Articles, pyrotechnic for technical purposes,” UN0431. We are specifically requesting comments concerning whether this may result in an unnecessary burden for international shippers. We are not aware of any air bag inflators that are transported as Division 1.4G in the United States. Also, see § 172.102, HMT, which includes the proposed amendment to remove the italicized word “pyrotechnic” from the UN0503 entry.
  - New Special Provision 162 would be added to eight proposed entries and two existing entries. The Special Provision authorizes the material to be transported under the provisions of Division 4.1, only if it is so packed that at no time during transport will the percentage of diluent fall below the percentage that is specified in the proper shipping name. The proposed new entries are “4-Nitrophenylhydrazine, with not less than 30% water, by mass,” UN3376; “Sodium dinitro-o-cresolate, wetted, with not less than 10% water by mass,” UN3369; “Trinitrobenzene, wetted, with not less than 10% water by mass,” UN3367; “Trinitrobenzoic acid, wetted, with not less than 10% water by mass, UN3368; “Trinitrochlorobenzene (picryl chloride), wetted, with not less than 10% water by mass,” UN3365; “Trinitrophenol (picric acid), wetted, with not less than 10% water by mass,” UN3364; “Trinitrotoluene (TNT), wetted, with not less than 10% water by mass,” UN3366; and “Urea nitrate, wetted, with not less than 10% water by mass,” UN3370. The two existing entries are “Barium azide, wetted with not less than 50 percent water, by mass,” UN1571 and “Dipicryl sulfide, wetted with not less than 10 percent water, by mass,” UN2852.
  - New Special Provisions A54 and A55 would be added to address certain requirements for the transportation of lithium batteries by aircraft. Special Provision A54 provides an approval provision that authorizes lithium batteries and lithium batteries contained in equipment or packed with equipment to exceed the quantity limits as specified in Column (9B) of the HMT when transported by cargo aircraft, if approved by the Associate Administrator. Special Provision A55 provides an approval provision to authorize prototype batteries to be transported by cargo aircraft if approved by the Associate Administrator. Special Provisions A54 and A55 would be assigned to “Lithium battery,” UN3090, “Lithium batteries, contained in equipment,” UN3091 and “Lithium batteries packed with equipment,” UN3091.
  - New Special Provision A56 would be added to address the air transport of radioactive material with subsidiary hazards of Divisions 4.2, Packing Group I, 2.1 or 2.3. Division 4.2, Packing Group I subsidiary hazard materials would be required to be transported by aircraft in Type B packagings only. Division 2.1 subsidiary hazard materials would be prohibited from passenger aircraft. The special provision is in alignment with the ICAO Technical Instruction’s Special Provision A78, with regard to radioactive materials with Division 2.1 subsidiary hazard but not the Division 4.2, PG I packaging requirement or the Division 2.3 subsidiary hazard approval provision. Proposed Special Provision A56 includes Division 4.2, PG I because we believe it was inadvertently omitted in ICAO’s Special Provision A78, and we understand that steps are being taken to address the matter with the ICAO Dangerous Goods Panel. See the § 172.101 HMT in the regulatory text of this rule for specific entries.
  - Special Provision IB3 would be revised by excepting “Ammonia solutions, relative density between 0.880 and 0.957 at 15 degrees C in water, with more than 10 percent but not more than 35 percent ammonia,” UN2672 from the special provision’s “Additional Requirement” that authorizes liquids with a vapor pressure less than or equal to 110 kPa at 50 °C (1.1 bar at 122 °F), or 130 kPa at 55 °C (1.3 bar at 131 °F). Proposed new Special Provision IP8 would also be added to the UN2672 entry.
  - Special Provision IB52 (Table 2) would be revised by adding additional packaging authorizations for certain entries and correcting various typographical errors. The entry “Dicumyl peroxide, “UN3110 would be corrected by adding “2000” as the maximum quantity in liters. In addition, we are proposing to move the approval provision for formulations not covered in Special Provision IB52 to § 173.225(e)(5).

Section 173.225(e) currently contains an approval provision for portable tanks, and we believe this paragraph is a more appropriate location for the IB52 approval provision.

- New Special Provision IP8 (Table 3) would be added for assignment to the existing entry “Ammonia solutions, relative density between 0.880 and 0.957 at 15 degrees C in water, with more than 10 percent but not more than 35 percent ammonia,” UN2672 (see Special Provision IB3). The special provision authorizes ammonia solutions to be transported in rigid or composite plastic intermediate bulk containers (IBCs) (31H1, 31H2 and 31HZ1), if the rigid plastic and composite IBCs have successfully passed, without leakage or permanent deformation, the hydraulic test specified in § 178.814 at a test pressure that is not less than 1.5 times the vapor pressure of the contents at 55 °C (131 °F).
- New Special Provision N83 would be added to the proposed new entry “Urea nitrate, wetted, with not less than 10% water by mass,” UN3370. This special provision limits the quantity of this material to no more than 11.5 kg (25.4 lbs) per package.
- New Special Provision N84 would be added for assignment to six proposed new entries and one existing entry. The special provision limits the quantity per package to no more than 500 g (1.1 lbs.). The six proposed new entries are: “Trinitrophenol (picric acid), wetted, with not less than 10% water by mass,” UN3364; “Trinitrochlorobenzene (picryl chloride), wetted, with not less than 10% water by mass,” UN3365; “Trinitrotoluene (TNT), wetted with not less than 10% water by mass,” UN3366; “Trinitrobenzene, wetted, with not less than 10% water by mass,” UN3367; “Trinitrobenzoic acid, wetted, with not less than 10% water by mass,” UN3368; and “Sodium Dinitroocresolate, wetted, with not less than 10% water by mass,” UN3369. The existing entry is “Dipicryl sulfide, wetted with not less than 10 percent water, by mass,” UN2852.
- New Special Provision N85 would be added for assignment to two existing entries, “Isosorbide dinitrate mixture with not less than 60 percent lactose, mannose, starch or calcium hydrogen phosphate,” UN2907 and “Pentaerythrite tetranitrate mixture, desensitized, solid, n.o.s. with more than 10 percent but not more than 20 percent PETN, by mass,” UN3344. The special provision prohibits the material from being transported in

packagings conforming to the requirements of Part 178 of the HMR at the Packing Group I performance level. This proposed action would address overconfinement hazards associated with these materials by prohibiting the use of packagings meeting the Packing Group I performance criteria.

- Special Provision T23 would be revised to correct typographical errors for the entries “tert-Butyl peroxyacetate, not more than 32% in diluent type B” and “tert-Butyl peroxyvalate, not more than 27% in diluent type B.” The word “tyupe” would be corrected to read “type” in the former and the control “temperature, – 5 °C,” would be corrected to read “+5 °C.”
- Special Provision TP3 would be editorially revised for clarity.

*Section 172.202.* We are proposing to revise paragraphs (a)(2), (a)(5) and (b). In paragraph (a)(2), we are proposing to require the subsidiary hazard class or subsidiary division number(s) to be entered in parentheses following the primary hazard class or division number on shipping papers. This requirement is currently required only for transportation by vessel. This proposed requirement responds to three petitions for rulemaking, P–1363, P–1398 and P–1402. One petitioner (P–1363) stated that the lack of such a requirement poses problems for motor carriers with regard to complying with segregation, separation and placarding requirements, as well as posing a safety hazard. The petitioner pointed out that when the hazardous materials being transported include a subsidiary hazard such as “dangerous when wet” or a subsidiary hazard requiring more stringent requirements than the primary hazard, there is no indication of the subsidiary hazards on the shipping papers and no indication of the subsidiary risks on placards. The petitioner stated that when motor vehicles are being loaded at a dock, labels are not enough to alert hazardous materials employees loading the vehicles or emergency responders of the subsidiary risks of materials in the vehicle.

Two petitions (P–1398 and P–1402) were specific to Division 4.3 materials. The petitioners requested that we require the shipping paper to contain the words “dangerous when wet” following the basic description for hazardous materials classed as Division 4.3 or having a Division 4.3 subsidiary hazard. The petitioners stated that the additional information would aid emergency responders by more clearly identifying the hazard.

We agree with the petitioners with regard to their request to require that subsidiary hazard class or subsidiary division number(s) be entered on the shipping paper. Thus, we are proposing to add a requirement to identify all subsidiary risks of a hazardous material on the shipping paper. We do not agree, however, with the suggestion to adopt the same requirement for the primary hazard class. We believe that this is unnecessary because the primary hazard is clearly identified on shipping papers by the division number as part of the basic description. We also do not agree with the petitioner’s (P–1363) suggestion to provide an exception from the proposed requirement to include the subsidiary hazard on shipping papers when the subsidiary hazard is identified in the proper shipping name (for example, “Flammable liquid, toxic, n.o.s.”). This suggested approach would be inconsistent with the UN Recommendations and would result in the addition of a domestic exception that would not enhance hazard communication and could also lead to frustrated international shipments while unnecessarily complicating the HMR.

We are also proposing to revise paragraph (a)(5) regarding the indication on shipping papers of the total quantity of hazardous materials. The proposed requirement, which is currently optional for all modes of transportation other than vessel, would make it mandatory for shippers to indicate on shipping papers the types of packages, such as drums, boxes, jerricans, etc., being used to transport hazardous materials by all modes of transportation. This requirement is consistent with international standards. We invite comments on costs, benefits, and complications that could result from adoption of this requirement. For example, certain electronic shipping paper programs, materials transported under a single basic description that are packaged in more than one type of packaging possibly would need to be listed more than once on the shipping paper. Alternatively, alterations to those programs may be necessary to provide space required to list more than one type of package for a single basic description. Therefore, we request comments addressing these issues, including suggestions to minimize any impacts associated with this proposed change, such as providing an extended transition period. For the purpose of consolidation, we would also transfer to this paragraph the existing additional requirements for transportation by vessel currently located in § 172.203 (i)(1), (i)(2), (i)(3) and (i)(6).

In addition, paragraph (b) would be revised to allow, as an alternative to the basic description sequence currently required in this paragraph, the identification number to be listed first on shipping papers and the proper shipping name to be listed following the hazard class and subsidiary risk. Noting that international standards will allow both sequences, we request comments specific to whether we should incorporate this amendment as an alternative for all shipments to, from, or within the U.S., or whether we should allow it for international shipments only. We also ask for comments addressing the impact this proposed amendment may have on emergency response training.

*Section 172.203.* We are proposing to remove and relocate paragraphs (i)(1), (i)(2), (i)(3) and (i)(6). With adoption of the proposal to indicate types of packagings on shipping papers in § 172.202, we would consolidate the four vessel requirements in § 172.203(i) by moving them to the description requirements in § 172.202(a)(5). The paragraphs address additional shipping paper requirements for the identification of the type, number and gross mass of packagings, and the identification of subsidiary hazards consistent with international standards. The current paragraphs (i)(4) and (i)(5) would be redesignated (i)(1) and (i)(2).

*Section 172.301.* Paragraph (a)(1) would be revised to reflect the proposed new marking requirement in § 172.315 for packagings containing limited quantities of hazardous materials. Packagings containing limited quantities would no longer require the proper shipping name on the packagings, but would be required to be marked in accordance with the proposed § 172.315 marking requirement that consists of an identification number placed within a diamond. (See § 172.315).

*Section 172.312.* A new paragraph (c)(6) would be added to allow packages containing liquid infectious substances in primary receptacles not exceeding 50 ml (1.7 oz) to be excepted from the requirements in § 172.312(a). Section 172.312(a) requires liquid hazardous materials packaged in non-bulk combination packagings to be packed with closures upward and to be legibly marked with orientation markings.

*Section 172.315.* A new section, § 172.315, would be added as a new marking requirement for packagings containing limited quantities of hazardous materials. This section would require such packagings to be marked with the identification (ID) number placed within a diamond. Marking the proper shipping name on limited

quantity packagings would not be required. The line forming the diamond would be required to be at least 2 mm thick and the height of the ID number no less than 6 mm. For packagings containing more than one limited quantity of hazardous materials with different ID numbers, the packaging would be required to be marked with either individual diamonds bearing a single ID number, or a single diamond large enough to include each applicable ID number. The marking would be required to be durable, legible and of a size relative to the packaging as to be readily visible.

*Section 172.323.* A new section, § 172.323, would be added to incorporate an air eligibility marking requirement into the HMR for all non-bulk packages offered for transportation or transported by aircraft. The marking would certify compliance with all applicable air transport package requirements, including pressure differential requirements, package markings and labels, inner packaging limits, selection of appropriate types of packagings, use of closure instructions for inner packagings, application of the cargo aircraft handling label (when applicable), and proper classification.

The ICAO has adopted this requirement in the 2003–2004 edition of the ICAO Technical Instructions, and a number of packaging vendors and military shippers are currently marking packagings to indicate that they meet the additional air requirements through the use of an air eligibility symbol, such as we are proposing, or by use of the statement “Air Eligible.” In addition to consistency with the ICAO Technical Instructions, we believe that the use of an air eligibility mark would be beneficial in heightening shipper awareness and responsibility for meeting the additional air transport package requirements. Adoption of this requirement would reduce the inadvertent acceptance for transportation by aircraft of packages that conform only to highway, rail or vessel requirements.

The shipper would be responsible for the application of the marking, but would not be required to physically place it on the package. The marking could be applied by using a durable sticker or label, preprinting it on the packaging, or drawing it on the package by hand. The marking would be required to be durable, legible, and of such size relative to the packaging as to be readily visible. Preprinting by the package manufacturer would require the manufacturer and the shipper to closely coordinate to ensure that the package meets the applicable air transport

requirements. The shipper would be responsible for ensuring that the package meets the applicable air transport requirements.

*Section 172.411.* We are proposing to revise the section heading and paragraphs (b) and (d), and to add new paragraphs (e) and (f). In the June 21, 2001 HM–215D final rule, we removed the requirement to differentiate between primary and subsidiary labels by requiring the class number to be displayed on both types of labels. The primary explosive label requires the appropriate division number and compatibility group to be displayed, but the explosive subsidiary label does not. This disparity was an oversight, and we are proposing to correct this section by adding the pictorial of the explosive subsidiary label and revising the text accordingly.

*Section 172.504.* Based on a telephone call we received from a shipper, paragraph (g) would be editorially revised by adding a clarification emphasizing the distinction between the words “explosive articles” and “explosive substances.” The commenter stated that the paragraph is often misinterpreted because the two phrases are not understood as having different meanings.

#### Part 173

*Section 173.2a.* In paragraph (b), the second line of the title of the Precedence of Hazard Table is editorially revised to include the word “division.” In addition, the Table is revised for the first three entries by inserting “4.3” under the Division 4.3 column to indicate that Division 4.3 takes precedence over Class 3 when classifying a material having more than one hazard.

*Section 173.21.* In paragraph (f)(3)(ii), we are proposing to update the location reference to the control temperature requirements in the IMDG Code to its current location in Chapter 7.7.

*Section 173.22.* We are proposing to revise paragraph (a)(4) to clarify that, in addition to complying with the Part 178 requirements, the shipper is responsible for ensuring that packages comply with the Part 173 requirements. This revision is consistent with the proposed amendments to § 173.24a relative to closures, and to § 173.27 relative to packages intended for air transport.

*Section 173.24.* A new paragraph (b)(4) would be added and paragraph (f)(1) would be revised. Paragraph (b)(4) would be revised by adding general requirements applicable to the integrity of packagings. The revision would amend the requirement that packagings must be closed in accordance with the

closure instructions provided by the manufacturer. Paragraph (f)(1) would be revised to address requirements for the construction and design of closures.

*Section 173.25.* In paragraph (a)(2), for the marking requirements pertaining to overpacks, we are proposing to include the air eligibility marking as proposed in § 172.323.

*Section 173.27.* We are proposing to revise paragraph (e) and add a new paragraph (i).

Paragraph (e) would be revised to require packagings with plastic and metal inner packagings to be packaged using absorbent material when Packing Group I or II liquids of Class 3, 4 or 8 or Division 5.1, 5.2 or 6.1 are offered for transport by passenger or cargo aircraft. Currently, the requirement to use absorbent material applies to Packing Group I and II materials when offered for transport by passenger aircraft, and to Packing Group I materials when offered for transport by cargo aircraft. We are proposing to also apply this requirement to Packing Group II materials offered for transport by cargo aircraft. Existing absorbent material requirements apply when inner packagings are constructed of glass or earthenware. The absorbent material requirement currently does not apply to Division 5.2 liquids. Various air carriers are currently imposing such a requirement, and it has been adopted in the 2003–2004 edition of the ICAO Technical Instructions, effective January 1, 2003. Therefore, offerors and shippers will be required to meet these requirements when air transport is in accordance with the ICAO Technical Instructions regardless of whether the requirements are incorporated into the HMR.

We are proposing to add a new paragraph (i) to refer the reader to proposed new section § 172.323 for the air eligibility marking requirement for packagings containing hazardous materials being transported by aircraft. See § 172.323 for the discussion on this proposed requirement.

*Section 173.62.* In § 173.62, in the paragraph (b) Explosives Table, the entry “UN0503” would be added for assignment to the packing instruction P135. UN0503 is assigned to the proper shipping name “Air bag inflators, or Air bag modules, or Seat-belt pretensioners,” Division 1.4G (also see § 172.101, HMT). The Class 9 “Air bag inflators, or Air bag modules, or Seat-belt pretensioners” entry would continue to be packaged in accordance with § 173.166.

In addition, in paragraph (c), in the Explosives Packing Instructions Table, in the first column, for the packing

instruction entry 112(b), in the last sentence, the obsolete ID number, “UN 0223,” would be removed. The entry was removed from the § 172.101 Table in a separate rulemaking.

*Section 173.115.* In paragraphs (d) and (e), we are proposing to amend the regulatory text that describes “non-liquefied compressed gas” and “liquefied compressed gas.” The proposed amendment would revise the reference temperature from 20 °C to – 50 °C, consistent with internationally accepted definitions for gases and consistent with the twelfth edition of the UN Recommendations.

We are also proposing to divide compressed liquefied gases into high and low pressure categories. The UN Subcommittee revised the terminology for gases to align them with the terminology used in the International Organization for Standardization (ISO) Standard 10286. This standard establishes the terminology applicable to gas cylinders and provides definitions for gases. The proposed regulatory text would affect 11 entries in the § 172.101 Table by removing the word “compressed” from the proper shipping names. Under a separate rulemaking, we will address whether the affected gases should be reassigned to more appropriate packagings sections, such as revising the packaging authorization from § 173.302 to § 173.304 in Column (8B) in the § 172.101 Table. We will also address the use of the high- and low-pressure compressed liquefied gas designations.

*Sections 173.152, 173.153 and 173.154.* The following sections would be revised by increasing the inner packaging net capacity limit for Packing Group III liquids from 4 L (1.1 gallons) to 5 L (1.3 gallons): § 173.152(b)(2), exceptions for Division 5.1 oxidizers and Division 5.2 organic peroxides; § 173.153(b)(1), exceptions for Division 6.1 poisonous materials; and § 173.154(b)(2), exceptions for Class 8 corrosive materials. Section 173.152(b)(4)(ii) would also be revised by raising the net capacity of inner packagings containing PG II flammable liquids in polyester resin kits from 1 L (0.3 gallons) to 5 L (1.3 gallons) each.

*Section 173.159.* A new sentence would be added to paragraph (a) requiring packagings for certain batteries to include an acid/alkali proof liner or a supplementary packaging with sufficient strength and adequate sealant to prevent leakage of electrolyte fluid in the event of spillage. This requirement would apply to packagings transported by aircraft and containing electric storage batteries with electrolyte acid or alkaline corrosive battery fluid.

A new paragraph (d)(4) would be added to require non-spillable batteries, that are excepted from all other requirements of the HMR, to meet the condition that at a temperature of 55 °C (131 °F), the electrolyte will not flow from a ruptured or cracked case and there is no free, unabsorbed liquid in the battery.

*Section 173.161.* We are proposing to revise this section to specify the packaging requirements for chemical and first aid kits consistent with international standards.

*Section 173.166.* This section would be revised consistent with the proposed removal of the Division 2.2 entry for “Air bag inflators, compressed gas or Air bag modules, compressed gas or Seat-belt pretensioners, compressed gas,” UN3353 (see § 172.101, HMT). We are proposing in this section to authorize reclassification to Class 9 without further testing for air bag inflators, air bag modules and pretensioners currently approved for transportation as Division 2.2.

*Section 173.185.* Paragraphs (e)(4) and (e)(7) would be revised and a new paragraph (k) would be added. We are proposing to combine paragraphs (e)(4) and (e)(5) into one paragraph, (e)(4), and to remove and reserve paragraph (e)(5).

The proposed revised paragraph (e)(4) would allow the use of dividers or other suitable means as alternative methods to inner packagings for effective means of preventing short circuits of lithium cells and batteries.

Based on a comment that was beyond the scope of the HM–215D final rule, we are proposing to revise paragraph (e)(7) by applying the prohibition to offer for transportation or transport certain cells and batteries to only those with a liquid cathode containing sulfur dioxide, sulfuryl chloride or thionyl chloride. Currently, any cell or battery with a cell that has been discharged to the extent that the open circuit voltage is less than 2 volts, or less than two-thirds of the open circuit voltage of the fully charged cell, whichever is less, is prohibited from being offered for transportation or transported. We have included sulfuryl chloride in this proposal and specifically request comments on whether these types of batteries exist to determine whether it is necessary to include sulfuryl chloride batteries and cells in this amendment. The UN Recommendations do not include this prohibition. The reduced voltage condition was included in the HMR to address lithium sulfur dioxide, sulfuryl chloride and lithium thionyl chloride primary batteries on the basis of safety issues with low-voltage cells. The lithium sulfur dioxide batteries present

hazards in transportation when the sulfur dioxide is depleted. The depletion can cause the removal or breakdown of the passivation film on the lithium anode which could result in a undesirable exothermic reaction of the lithium metal and the electrolyte solvent leading to high temperatures, cell venting, cell rupture, and fires. In addition, a new paragraph (k) would be added to allow batteries with a mass of 12 kg or greater and having strong, impact-resistant outer casings to be packed in strong outer packagings, protective enclosures, or unpacked on pallets. Packaging in this manner for transportation by cargo-only aircraft would be permitted only with the approval of the Associate Administrator.

Additional amendments to the requirements for lithium batteries are being addressed in a separate rulemaking, under Docket HM-224C (NPRM published on April 2, 2002, 67 FR 15510). One of the proposals under Docket HM-224C addresses a reorganization of § 173.185. Any amendments adopted in either final rule will be reflected in the other.

*Section 173.216.* We are proposing to move the exceptions for asbestos in paragraph (b) to a new special provision (see Special Provision 156 in § 172.102). Paragraph (b) excepts asbestos immersed or fixed in a natural or artificial binder material and also excepts asbestos contained in manufactured products. We understand that because the exception is located in § 173.216 and referenced in Column (7) of the HMT for non-bulk packagings, the exception appears to be limited to non-bulk packagings. To clarify the applicability, we are proposing to remove and reserve paragraph (b) and transfer the exception to the proposed new Special Provision 156. The exception will continue to apply to three entries, "Blue asbestos (Crocidolite) or Brown asbestos (amosite, mysorite)," UN2212, "White asbestos (chrysotile, actinolite, anthophyllite, tremolite)," UN2590, and "Asbestos," NA2212.

*Section 173.218.* Paragraph (a) introductory text would be revised and paragraph (b) would be removed. Paragraph (a) introductory text would be editorially revised to reflect the proposed relocation of the requirement currently contained in paragraph (b). In the current paragraph (b), the requirement for the maximum temperature at which fish meal or fish scrap may not be offered for transportation would be revised from 49 °C (120 °F) to 35 °C (95 °F), or 5 °C (41 °F) above ambient temperature, whichever is higher, and relocated to

proposed Special Provision 155 (see § 172.102).

*Section 173.220.* We are proposing to add a new paragraph to include additional requirements for certain engines and vehicles. The current paragraph (e) would be redesignated (f) and the new paragraph would become paragraph (e). The new paragraph would include several additional requirements for internal combustion engines and vehicles equipped with certain devices when transported by aircraft or vessel. When engines are shipped separately, we are proposing that all fuel, coolant or hydraulic systems in or on the engine must be drained as far as practicable, must have disconnected fluid pipes sealed with leak-proof caps that are positively retained, and any installed theft-protection devices, radio communications equipment or navigational systems must be disabled.

*Section 173.223.* We are proposing to add a new packaging section, § 173.223, for musk xylene. Currently, the authorized packaging section, § 173.214, for musk xylene requires approval by the Associate Administrator. We are proposing to add a new section that is consistent with the UN packing instruction P409 assigned to musk xylene, so that approval by the Associate Administrator will no longer be necessary.

*Section 173.224.* In paragraph (b)(4), the incorrect reference for bulk packaging authorizations, § 173.225(d), would be corrected to read § 173.225(e). In the Self-Reactive Materials Table following paragraph (b)(7), five entries in Column (1) would be revised and four new entries would be added. The five revised entries appear first as "removes" and then "adds" in the regulatory text section of this NPRM. For the entry "2,2'-Azodi(isobutyronitrile) as a water based paste," the misaligned column entries would be corrected. A new Note 4 would be added following the table for assignment to the new entry "2-Diazo-1Naphthol sulphonic acid ester mixture, Type D."

*Section 173.225.* We are proposing to amend the paragraph (b) Organic Peroxide Table, the Notes following the Table, and paragraphs (e)(3)(xii) and (e)(5).

The proposed amendments to the Organic Peroxide Table include the addition of bulk and IBC packaging authorizations for certain entries, the addition of several new entries and various corrections to certain entries.

Note 9 following the Table would be revised by correcting the paragraph reference "(e)(3)(ii)" to read

"(e)(3)(xii)." A new Note 27 would be added for the proposed entry "Peroxyacetic acid, distilled, Type F, stabilized," UN3110. A new Note 28 would be added to clarify that "Peroxyacetic acid" and "Peracetic acid" are synonymous.

Paragraph (e)(3)(xii) would be revised to clarify that DOT Specification 57 portable tanks are not subject to any other requirements in paragraph (e).

We are also proposing to move the approval provisions currently contained in the § 172.102(c)(4) Table 2, Special Provision IB52, to paragraph (e)(5). We believe this is a more appropriate section for the approval provisions, which we are proposing to expand to provide for the use of IBCs other than those indicated in the IB52 Table when approved by the Associate Administrator.

*Section 173.244.* We are proposing to revise paragraph (c) by adding a clarification that UN portable tanks are also authorized for use if a T code is specified in Column (7) of the HMT for the specific hazardous material.

*Section 173.306.* We are proposing to revise the paragraph heading in § 173.306(f) by adding the proper shipping name "Articles, pressurized, pneumatic or hydraulic containing non-flammable gas." The revision is based on the proper shipping name replacing the domestic entry "Accumulators, pressurized, pneumatic or hydraulic (containing non-flammable gas)," which was removed in HM-215D published on June 21, 2001. We received telephone calls requesting the addition to the paragraph heading to clarify the intent of the paragraph.

We are also proposing to add a new paragraph (j) to reference the exception for certain compressed gases in § 173.307.

*Section 173.307.* We are proposing to add a new paragraph (a)(5) to except Division 2.2 gas aerosols with a capacity of not more than 50 ml and with a pressure not exceeding 970 kPa (141 psig) from the HMR.

*Section 173.422.* We are proposing to revise the certification statements in paragraphs (a)(2), (a)(3) and (a)(4) to reflect the updated proper shipping names and UN identification numbers currently authorized in the § 172.101 Table for excepted packages of radioactive materials.

#### Part 175

*Section 175.10.* We are proposing to revise paragraph (a)(25) to allow two small CO<sub>2</sub> cartridges fitted in self-inflating life jackets and two spare cartridges to be carried by a passenger or crew member in checked or carry-on

baggage. Currently, paragraph (a)(25) allows, with the approval of the aircraft operator, one small carbon dioxide cylinder fitted into a self-inflating life-jacket, plus one spare cartridge.

We are also proposing to add a new paragraph (c) to extend the paragraph (a) exceptions from the HMR to aircraft operators when transporting baggage that has been inadvertently separated from a passenger or crew member before reaching its final destination.

*Section 175.30.* We are proposing to add a new paragraph (a)(5) requiring that the proposed air eligibility marking requirement in § 172.323 must be met before a person may accept hazardous materials for transportation by aircraft.

*Section 175.90.* We are proposing to revise paragraphs (b) and (c). Paragraph (b) would be revised to include amendments relative to an aircraft operator's responsibility concerning packagings, baggage or cargo that have become contaminated by leaking hazardous materials. This proposal is consistent with the 2003–2004 edition of the ICAO Technical Instructions and is in response to a National Transportation Safety Board (NTSB) recommendation (A–96–30) issued to the Federal Aviation Administration. This NTSB recommendation resulted from an incident involving an undeclared shipment of a hydrogen peroxide solution that leaked, resulting in injuries to airline personnel and a potential fire hazard aboard a passenger aircraft. Paragraph (c) prohibits a person from placing a damaged packaging aboard an aircraft. We are proposing to revise the paragraph by including the words “baggage or cargo” when referring to a damaged or leaking packaging.

#### Part 176

*Section 176.27.* In paragraph (c)(2), we are proposing to remove the words “of 49 CFR 176.27(c)” at the end of the certification statement and add the words “of 49 CFR” or “of the IMDG Code.”

*Section 176.63.* We are proposing to add a new paragraph (f) to include the conditions for the authorized stowage of containers on board hatchless container ships.

*Section 176.83.* We are proposing to add a new paragraph (l) to include the requirements for the segregation of containers on board hatchless container ships.

*Section 176.84.* In the paragraph (b) Table of Provisions, we are proposing to add nine new provisions (codes) for certain stowage and segregation requirements for hazardous materials that are transported by vessel. The terms

“separated from” and “away from” in the proposed codes are defined in § 176.83 of the HMR.

Code 124 would be added for assignment to the proposed new entry “Ammonium nitrate emulsion or Ammonium nitrate suspension or Ammonium nitrate gel, *intermediate for blasting explosives*,” UN3375 and would require the material to be stowed “separated from” bromates.

Code 125 would be added for assignment to the proposed new entry “Chlorosilanes, toxic, corrosive, flammable, n.o.s.,” UN3362 and would require segregation to be the same as for flammable liquids; however, those materials also would be required to be “away from” flammable solids.

Code 126 would be added for assignment to the five current UN1950 aerosol entries and would require segregation to be the same as for Class 9 miscellaneous hazardous materials.

Code 127 would be added for assignment to “5-tert-Butyl-2,4,6-trinitro-m-xy-xylene,” UN2956 and would require packagings carrying a subsidiary risk of Class 1 (explosives) to be segregated as required for Class 1, Division 1.3.

Code 128 would be added for assignment to “Fish meal, stabilized,” UN2216 and “Fish meal, unstabilized,” UN1374 and would require stowage to be in accordance with the IMDG Code, sub-section 7.1.10.3.

Code 129 would be added for assignment to “Radioactive material, low specific activity (LSA–I) *non fissile or fissile-excepted*,” UN2912 (the international entry); “Radioactive material, low specific activity, n.o.s. or Radioactive material, LSA, n.o.s.,” UN2912 (the domestic entry); “Radioactive material, low specific activity (LSA–II) *non fissile or fissile-excepted*,” UN3321; and “Radioactive material, low specific activity (LSA–III) *non fissile or fissile-excepted*,” UN3322. This code would require stowage to be in accordance with Stowage Category A, with certain exceptions noted.

Code 130 would be added for assignment to “Radioactive material, Type A package *non-special form, non fissile or fissile-excepted*,” UN2915 to require Stowage Category A. Certain exceptions are noted.

Code 131 would be added for assignment to “Radioactive material, Type A package, fissile *non-special form*,” UN3327 to require Stowage Category A, with certain exceptions noted.

Code 132 would be added for assignment to “Uranium hexafluoride, fissile (*with more than 1 percent U–235*),” UN2977; “Uranium hexafluoride,

*fissile excepted or non-fissile*,” UN2978; “Radioactive material, uranium hexafluoride, fissile,” UN2977; and “Radioactive material, uranium hexafluoride *non fissile or fissile-excepted*,” UN2978. This code requires stowage to be in accordance with Stowage Category A and note that any supplementary requirements specified in the transport documents must be considered.

*Section 176.140.* The reference to the IMDG Code in paragraph (b) would be updated by removing the wording “General Introduction.”

*Section 176.170.* Paragraph (b) would be removed and reserved. For alignment with a revision made in Amendment 31 of the IMDG Code, we are removing the requirement that prohibits freight containers exceeding 6 m (20 feet) in length from carrying more than 5000 kg (11,023 pounds) net explosive weight of most explosive substances. This provision was removed from the IMDG Code because it placed an inconsistent and unnecessary restriction on containers exceeding 6 m (20 foot) in length while placing no such restriction on smaller containers.

*Sections 176.410 and 176.415.* We are proposing to update these sections for consistency with international standards and with the prior removal of ammonium nitrate fertilizer proper shipping names from the HMR.

#### Part 178

*Section 178.2.* Paragraph (c)(1)(ii) would be revised by clarifying the information that the packaging manufacturer and each subsequent distributor are required to provide to packaging users.

*Section 178.274.* Based on a telephone call we received, in paragraph (j)(6), the size of the “NOT FOR RAIL TRANSPORT” marking would be revised from 20 cm (8 inches) to no less than 10 cm (4 inches) in height. We agree with the commenter's reasoning that 8 inches is excessive for portable tanks in that it could require a decal as long as 14 feet, 3 inches.

*Section 178.705.* We are proposing to correct the paragraph (c)(1)(iv)(A) wall thickness table for metal IBCs. During the typesetting process of the HM–215D final rule (66 FR 33316), published on June 21, 2001, the headings for the IBC types were misaligned, and we are proposing to correct them as presented in the HM–215D NPRM (65 FR 63294) published on October 23, 2000.

*Section 178.812.* In § 178.812(b)(1), we are proposing to add the words “with the load being evenly distributed,” consistent with the wording in § 178.812(b)(2). This text is

necessary to clarify that the test must not be conducted with the load unequally applied to an individual lifting device.

#### Part 180

*Section 180.350.* We are amending § 180.350 by revising the section heading from “Applicability” to “Applicability and definitions” and by adding definitions for “Remanufactured IBCs,” “Repaired IBCs” and “Routine Maintenance of IBCs.”

*Section 180.352.* Two paragraphs would be revised and one new paragraph would be added. Paragraph (d)(1)(i) would be revised to specify that a repaired IBC must be retested and inspected in accordance with the applicable requirements in this section. Paragraph (f) would be revised to require that a record of such tests performed on repaired IBCs must be kept by the IBC owner or lessee. Finally, a new paragraph (d)(1)(iv) would be added to specify a requirement for marking repaired IBCs.

*Section 180.605.* Paragraph (k) would be revised to restore the inadvertently omitted inspection and test marking requirements for Specification DOT 51, 56, 57 and 60 portable tanks. The text, which was previously located in § 173.32, was omitted during the process of consolidating certain requirements and moving them to part 180 in the final rule, HM–215D, published June 21, 2001. For the height of the marking when displayed on the portable tank, we are also proposing to revise the “0.5 inches” conversion for 12 mm to “0.47” inches consistent with § 178.3.

### IV. Rulemaking Analyses and Notices

#### A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This proposed rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was not reviewed by the Office of Management and Budget. This proposed rule is not considered a significant rule under the Regulatory Policies and Procedures of the Department of Transportation [44 FR 11034]. Benefits resulting from the adoption of the amendments in this proposed rule include enhanced transportation safety resulting from the consistency of domestic and international hazard communications and continued access to foreign markets by domestic shippers of hazardous materials. This proposed rule applies to offerors and carriers of hazardous materials, such as chemical manufacturers, chemical users and

suppliers, packaging manufacturers, distributors, battery manufacturers, radiopharmaceutical companies, and training companies.

The majority of amendments in this proposed rule should result in cost savings and ease the regulatory compliance burden for shippers engaged in domestic and international commerce, including trans-border shipments within North America. For example, cost savings will be realized by shippers and carriers as a result of the following:

- Eliminating the differences between proper shipping names, UN number assignments and hazard classification, including subsidiary hazards, between the HMR and international regulations. As a result of these changes, shippers and carriers would not have to re-mark or repackage hazardous materials that are offered in both domestic and international transportation. Shipping papers would not need to be revised when shipping descriptions differ in domestic and international regulations.
- Providing certain exceptions including a placarding exception for sulfur and molten sulfur when the UN number is displayed on bulk packagings, and providing a packaging exception for large hard-cased robust lithium batteries.

We would authorize a delayed effective date and a one-year transition period to allow for training of employees and to ease any burden on entities affected by the amendments.

We recognize that there may be costs associated with the proposed § 172.202(a)(5) amendment requiring the type of packaging(s) to be entered on shipping papers. We believe that the proposed one-year transition period should minimize any costs; however, we are specifically requesting comments addressing the impact that the proposed amendment may have on businesses. Additionally, we are requesting suggestions to minimize any adverse impact, such as providing an extended transition period.

Many companies involved in domestic, as well as global operations, would realize economic benefits as a result of the adoption of amendments in this rulemaking. If the proposed changes are not adopted, U.S. companies will be at an economic disadvantage by being forced to comply with a dual system of regulations. The total net increase in costs to businesses in implementing this rulemaking is considered to be so minimal as to not warrant preparation of

a regulatory impact analysis or regulatory evaluation.

#### B. Executive Order 13132

This proposed rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (“Federalism”). This proposed rule preempts State, local and Indian tribe requirements but does not propose any regulation that has substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazardous material transportation law, 49 U.S.C. 5101–5127, contains an express preemption provision (49 U.S.C. 5125(b)) that preempts State, local, and Indian tribe requirements on certain covered subjects. Covered subjects are:

- (1) The designation, description, and classification of hazardous materials;
- (2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;
- (3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;
- (4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous; or
- (5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This proposed rule addresses covered subject items (1), (2), (3), and (5) above and would preempt State, local, and Indian tribe requirements not meeting the “substantively the same” standard. This proposed rule is necessary to incorporate changes adopted in international standards, effective January 1, 2003. If the changes in this proposed rule are not adopted in the HMR, U.S. companies, including numerous small entities competing in foreign markets, would be at an economic disadvantage. These companies would be forced to comply with a dual system of regulations. The changes proposed in this rulemaking are intended to avoid this result. Federal hazardous materials transportation law provides at section 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must

determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. We propose that the effective date of Federal preemption be 90 days from the date of publication of a final rule in the **Federal Register**.

#### C. Executive Order 13175

This proposed rule was analyzed in accordance with the principles and criteria contained in Executive Order 13175 ("Consultation and Coordination with Indian Tribal Governments"). Because this proposed rule does not have tribal implications, does not impose substantial direct compliance costs, and is required by statute, the funding and consultation requirements of Executive Order 13175 do not apply.

#### D. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities, unless the agency determines that a rule is not expected to have a significant impact on a substantial number of small entities. This proposed rule would serve to facilitate the transportation of hazardous materials in international commerce by providing consistency with international standards. This proposed rule applies to offerors and carriers of hazardous materials, some of whom are small entities, such as chemical users and suppliers, packaging manufacturers, distributors, battery manufacturers, and training companies.

As discussed above, under *Executive Order 12866*, the majority of amendments in this proposed rule should result in cost savings and ease the regulatory compliance burden for shippers engaged in domestic and international commerce, including trans-border shipments within North America.

We recognize that there may be costs associated with the proposed § 172.202(a)(5) amendment requiring the type of packaging(s) to be entered on shipping papers. We believe that the proposed one-year transition period should allow sufficient time to train employees and to ease any burden on small entities affected by the amendments. We are specifically requesting comments addressing the impact that the proposed amendment may have on businesses, including suggestions to minimize any adverse impact, such as incorporating an extended transition period.

Many companies will realize economic benefits as a result of the proposed amendments. If the changes proposed in this NPRM are not adopted, U.S. companies, including small entities competing in foreign markets, will be forced to comply with a dual system of regulations to their economic disadvantage. Therefore, I certify that these proposed amendments will not, if promulgated, have a significant economic impact on a substantial number of small entities. This certification is subject to modification as a result of a review of comments received in response to this proposed rulemaking.

#### E. Paperwork Reduction Act

We submitted the information collection and recordkeeping requirements contained in this NPRM to the Office of Management and Budget (OMB) for approval under the provisions of the Paperwork Reduction Act of 1995, Section 1320.8(d). Title 5, Code of Federal Regulations requires us to provide interested members of the public and affected agencies an opportunity to comment on information collection and recordkeeping requests. Under the Paperwork Reduction Act, no person must comply with an information collection requirement unless it has been approved by OMB and displays a valid OMB control number.

Due to the new information collection requirement proposed in this NPRM for additional shipping paper documentation, we will be submitting a proposed new information collection to OMB for review and approval. This proposed new information collection, "Subsidiary Hazard Class & Number/Type of Packagings", would be assigned an OMB control number after review and approval by OMB. There would be an increase in information collection and recordkeeping burdens under this new information collection, OMB Control Number 2137-xxxx due to additional information, (e.g., subsidiary hazard class or division number and number and type of packagings) proposed to be included on shipping papers under this rule. RSPA currently has an approved information collection under OMB Control Number 2137-0557, "Approvals for Hazardous Materials" with 25,605 burden hours and \$562,837.40. There would be only minor editorial revisions for section designations, etc., and no change in the burden for OMB Control

Number 2137-0557 proposed under this rule.

We estimate that the new total information collection and recordkeeping burden resulting from the proposed additional information required on shipping papers would be:

"Subsidiary Hazard Class & Number/Type of Packagings" (New Information Collection) OMB No. 2137-xxxx

*Total Annual Number of Respondents:* 250,000.

*Total Annual Responses:* 6,337,500.

*Total Annual Burden Hours:* 17,604.

*Total Annual Burden Cost:* \$216,705.

*Total Year Annual Burden Hours:* 45,705.

*Total First Year Annual Start Up Cost:* \$1,115,992.

There are minor editorial changes proposed under this rule; however, there is no increase in burden for this information collection approval proposed under this rule. We estimate that the proposed total information collection and recordkeeping burden as follows:

"Approvals for Hazardous Materials"

*OMB Number 2137-0557:*

*Total Annual Number of Respondents:* 3,523.

*Total Annual Responses:* 3,874.8.

*Total Annual Burden Hours:* 25,605.

*Total Annual Burden Cost:*

\$562,837.40.

Requests for a copy of this information collection should be directed to Deborah Boothe or Glenn Foster, Office of Hazardous Materials Standards (DHM-10), Research and Special Programs Administration, Room 8422, 400 Seventh Street, SW., Washington, DC 20590-0001, Telephone (202) 366-8553. Written comments should be addressed to the Dockets Unit identified in the Addresses section of this rulemaking. We should receive comments regarding information collection burdens prior to the close of the comment period identified in the **DATES** section of this rulemaking. We will publish a notice advising interested parties of the OMB control number for the new information collection when assigned by OMB.

#### F. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

**G. Unfunded Mandates Reform Act**

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of \$100 million or more to either State, local or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the rule.

**H. Environmental Assessment**

The National Environmental Policy Act of 1969 (NEPA) requires Federal agencies to consider the consequences of major Federal actions and prepare a detailed statement on actions significantly affecting the quality of the human environment. We developed an assessment to determine the effects of these revisions on the environment and whether a more comprehensive environmental impact statement may be required. Our findings conclude that there are no significant environmental impacts associated with this proposed rule. Consistency in the regulations for the transportation of hazardous materials aids in the shipper's understanding of what is required and permits shippers to more easily comply with safety regulations and avoid the potential for environmental damage or contamination. For interested parties, an environmental assessment is available in the public docket.

**List of Subjects**

**49 CFR Part 171**

Exports, Hazardous materials transportation, Hazardous waste,

Imports, Incorporation by reference, Reporting and recordkeeping requirements.

**49 CFR Part 172**

Education, Hazardous materials transportation, Hazardous waste, Labeling, Markings, Packaging and containers, Reporting and recordkeeping requirements.

**49 CFR Part 173**

Hazardous materials transportation, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

**49 CFR Part 175**

Air carriers, Hazardous materials transportation, Radioactive materials, Reporting and recordkeeping requirements.

**49 CFR Part 176**

Hazardous materials transportation, Maritime carriers, Radioactive materials, Reporting and recordkeeping requirements.

**49 CFR Part 178**

Hazardous materials transportation, Motor vehicle safety, Packaging and containers, Reporting and recordkeeping requirements.

**49 CFR Part 180**

Hazardous materials transportation, Motor carriers, Motor vehicle safety, Packaging and containers, Railroad safety, Reporting and recordkeeping requirements.

In consideration of the foregoing, 49 CFR Chapter I is proposed to be amended as follows:

**PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS**

1. The authority citation for part 171 would continue to read as follows:

**Authority:** 49 U.S.C. 5101–5127; 49 CFR 1.53.

2. In § 171.7, in the paragraph (a)(3) table, the following changes would be made:

a. Under the entry “International Civil Aviation Organization (ICAO)”, the existing entry would be revised;

b. Under the entry “International Maritime Organization (IMO)”, the entry “International Maritime Dangerous Goods (IMDG) Code, 1994 Consolidated Edition, as amended by Amendment 29 (1998) (English edition)” would be removed and one entry would be added in its place;

c. Under the entry “International Organization for Standardization”, a new entry would be added in alphanumeric order; and

d. Under the entry “United Nations”, the entry “UN Recommendations on the Transport of Dangerous Goods, Eleventh Revised Edition (1999)” would be revised.

The revisions and additions would read as follows:

**§ 171.7 Reference material.**

(a) \* \* \*

(3) *Table of material incorporated by reference.* \* \* \*

Source and name of material	49 CFR reference
<i>International Civil Aviation Organization (ICAO),</i>	
Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions), 2003–2004 Edition.	171.11; 172.202; 172.323; 172.401; 172.512; 172.602
<i>International Maritime Organization (IMO),</i>	
International Maritime Dangerous Goods (IMDG Code), as amended by Amendment 31 (English Edition).	171.12; 172.401; 172.502; 173.21; 176.2; 176.5; 176.11; 176.27; 176.30
<i>International Organization for Standardization,</i>	
International Convention for the Safety of Life at Sea, 1974, as amended, Chapter II–2/Regulation 19.	176.63
<i>United Nations,</i>	
UN Recommendations on the Transport of Dangerous Goods, Twelfth Revised Edition (2001).	172.401; 172.407; 172.502; 173.24

Source and name of material	49 CFR reference
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\* \* \* \* \*

3. In § 171.8, in the definition “Large packaging”, in paragraph (5), the wording “UN Recommendations” would be removed and “UN Recommendations, Chapter 6.6 (incorporated by reference; see § 171.7)” would be added in its place.

4. In § 171.11, paragraphs (c), (d)(5) and (d)(17) would be revised to read as follows:

**§ 171.11 Use of ICAO Technical Instructions.**

(c) Is not a forbidden material or package according to § 173.21 of this subchapter; is not a forbidden material as designated in Column (3) of the § 172.101 Table of this subchapter; is not forbidden on cargo aircraft as designated in Columns (9A) and (9B) of the § 172.101 Table of this subchapter; and is not transported on passenger-carrying aircraft if forbidden on passenger-carrying aircraft in Column (9A) of the § 172.102 Table.

(d) \* \* \*

(5) For air bag inflators, air bag modules, or seat-belt pretensioners, the shipping paper description must conform to the requirements of § 173.166(c) of this subchapter.

(17) A self-reactive substance that is not identified by technical name in the Self-reactive Materials Table in § 173.224(b) of this subchapter must be approved by the Associate Administrator in accordance with the requirements of § 173.124(a)(2)(iii) of this subchapter. An organic peroxide that is not identified by a technical name in the Organic Peroxide Table in § 173.225(b) of this subchapter must be approved by the Associate Administrator in accordance with the requirements of § 173.128(d) of this subchapter.

5. In § 171.12, paragraph (b)(3) would be revised; in paragraph (b)(5), the first sentence would be revised; and paragraphs (b)(19) and (b)(20) would be revised to read as follows:

**§ 171.12 Import and export shipments.**

(b) \* \* \*

(3) A material that is designated as a hazardous material under this subchapter, but is not subject to the requirements of the IMDG Code (see § 171.12 of this subchapter) may not be transported under the provisions of this

section and is subject to the requirements of this subchapter. Examples of such materials include flammable gas powered vehicles and combustible liquids.

(5) Except for IBCs and UN portable tanks intended for liquids or solids, bulk packagings must conform to the requirements of this subchapter. \* \* \*

(19) The shipping paper description for an air bag inflators, air bag module, or seat-belt pretensioner must conform to the requirements of § 173.166 of this subchapter.

(20) A self-reactive substance that is not identified by technical name in the Self-reactive Materials Table in § 173.224(b) of this subchapter must be approved by the Associate Administrator in accordance with the requirements of § 173.124(a)(2)(iii) of this subchapter. An organic peroxide that is not identified by a technical name in the Organic Peroxide Table in § 173.225(b) of this subchapter must be approved by the Associate Administrator in accordance with the requirements of § 173.128(d) of this subchapter.

6. In § 171.12a, paragraph (b)(18) would be revised to read as follows:

**§ 171.12a Canadian shipments and packagings.**

(b) \* \* \*

(18) A self-reactive substance that is not identified by technical name in the Self-reactive Materials Table in § 173.224(b) of this subchapter must be approved by the Associate Administrator in accordance with the requirements of § 173.124(a)(2)(iii) of this subchapter. An organic peroxide that is not identified by a technical name in the Organic Peroxide Table in § 173.225(b) of this subchapter must be approved by the Associate Administrator in accordance with the requirements of § 173.128(d) of this subchapter.

7. In § 171.14, paragraphs (d) introductory text, (d)(1), (d)(2) introductory text, (d)(4) and (d)(5) would be revised, and paragraph (d)(6) would be added to read as follows:

**§ 171.14 Transitional provisions for implementing certain requirements.**

(d) A final rule published in the **Federal Register** on (INSERT

PUBLICATION DATE OF FINAL RULE), effective October 1, 2003, resulted in revisions to this subchapter. During the transition period, until October 1, 2004, as provided in paragraph (d)(1) of this section, a person may elect to comply with either the applicable requirements of this subchapter in effect on September 30, 2003, or the requirements published in the (INSERT PUBLICATION DATE OF FINAL RULE) final rule.

(1) *Transition dates.* The effective date of the final rule published on (INSERT PUBLICATION DATE OF FINAL RULE) is October 1, 2003. A delayed compliance date of October 1, 2004 is authorized. On and after October 1, 2004, all applicable regulatory requirements adopted in the final rule in effect on October 1, 2003 must be met.

(2) *Intermixing old and new requirements.* Marking, labeling, placarding, and shipping paper descriptions must conform to either the old requirements of this subchapter in effect on September 30, 2003, or the new requirements of this subchapter in the final rule without intermixing communication elements, except that intermixing is permitted, during the applicable transition period, for packaging, hazard communication, and handling provisions, as follows:

(4) Until January 1, 2010, a hazardous material may be transported in an IM, IMO, or DOT Specification 51 portable tank in accordance with the T Codes (Special Provisions) assigned to a hazardous material in Column (7) of the § 172.101 Table in effect on September 30, 2001.

(5) Until October 1, 2007, proper shipping names that included the word “inhibited” prior to the June 21, 2001 final rule in effect on October 1, 2001 are authorized on packagings in place of the word “stabilized.” Until October 1, 2007, proper shipping names that included the word “compressed” prior to the final rule published on (INSERT PUBLICATION DATE OF FINAL RULE) and effective on October 1, 2003 may continue to be shown on packagings.

(6) Until October 1, 2005, proper shipping names that did not identify specific isomers by numbers or letters preceding the chemical name prior to the final rule published on (INSERT PUBLICATION DATE OF FINAL RULE) and effective on October 1, 2003, may

continue to be marked on packagings in place of the proper shipping names revised in the (INSERT PUBLICATION DATE OF FINAL RULE) final rule.

**PART 172—HAZARDOUS MATERIALS TABLE, SPECIAL PROVISIONS, HAZARDOUS MATERIALS COMMUNICATIONS, EMERGENCY RESPONSE INFORMATION, AND TRAINING REQUIREMENTS**

8. The authority citation for part 172 would continue to read as follows:

**Authority:** 49 U.S.C. 5101–5127; 49 CFR 1.53.

9. In § 172.101, paragraph (c)(15) would be revised, and the Hazardous Materials Table would be revised to read as follows:

**§ 172.101 Purpose and use of hazardous materials table.**

\* \* \* \* \*

(c) \* \* \*

(15) Unless a hydrate is specifically listed in the Table, a proper shipping

name for the equivalent anhydrous substance may be used, if the hydrate meets the same hazard class or division, subsidiary risk(s) and packing group.

\* \* \* \* \*

§ 172.101 HAZARDOUS MATERIALS TABLE

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or division	Identification numbers	PG	Label Codes	Special provisions	(8) Packaging (§ 173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
[REMOVE]													
	Air bag inflators, compressed gas or Air bag modules, compressed gas or Seat-belt pretensioners, compressed gas.	2.2	UN3353	.....	2.2	133	166	166	166	75 kg	150 kg	A.	
	Air bag inflators, <i>pyrotechnic</i> or Air bag modules, <i>pyrotechnic</i> or Seat-belt pretensioner, <i>pyrotechnic</i> .	1.4G	UN0503	II	1.4G		166	166	166	Forbidden	75 kg	02	24E
	Air bag inflators, <i>pyrotechnic</i> or Air bag modules, <i>pyrotechnic</i> or Seat-belt pretensioner, <i>pyrotechnic</i> .	9	UN3268	III	9		166	166	166	25 kg	100 kg	A.	
D	Ammonium nitrate fertilizers.	5.1	NA2072	III	5.1	7, IB8	152	213	240	25 kg	100 kg	B	48, 59, 60, 117
	Ammonium nitrate fertilizers; <i>uniform non-segregating mixtures of ammonium nitrate with added matter which is inorganic and chemically inert towards ammonium nitrate, with not less than 90 percent ammonium nitrate and not more than 0.2 percent combustible material (including organic material calculated as carbon), or with more than 70 percent but less than 90 percent ammonium nitrate and not more than 0.4 percent total combustible material.</i>	5.1	UN2067	III	5.1	52, IB8, IP3	152	213	240	25 kg	100 kg	B	48, 59, 60, 117

A, W .....	Ammonium nitrate fertilizers: <i>uniform non-segregating mixtures of nitrogen/phosphate or nitrogen/postash types or complete fertilizers of nitrogen/phosphate/postash type, with not more than 70 percent ammonium nitrate and not more than 0.4 percent total added combustible material or with not more than 45 percent ammonium nitrate with unrestricted combustible material.</i>	9	UN2071	III	9	132, IB8	155	213	240	200 kg	200 kg	A.	
	Ammonium nitrate mixed fertilizers.	5.1	NA2069	III	5.1	10, IB8	152	213	240	25 kg	100 kg	B	48, 59, 60, 117
	Ammonium nitrate, <i>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.</i>	5.1	UN1942	III	5.1	A1, A29, IB8, IP3.	152	213	240	25 kg	100 kg	A	48, 59, 60, 116
	Boron trifluoride, compressed.	2.3	UN1008		2.3	2, B9, B14	None	302	314, 315	Forbidden	Forbidden	D	40
	Calcium hypochlorite, hydrated or Calcium hypochlorite, hydrated mixtures, <i>with not less than 5.5 percent but not more than 10 percent water.</i>	5.1	UN2880	II	5.1	IB8, IP2, IP4, W9.	152	212	240	5 kg	25 kg	D	4, 5, 25, 48, 56, 58, 69
	Carbonyl fluoride, compressed.	2.3	UN2417		2.3, 8	2	None	302	None	Forbidden	Forbidden	D	40
+ .....	Chlorodinitrobenzenes	6.1	UN1577	II	6.1	IB8, IP2, IP4, T7, TP2.	None	212	242	25 kg	100 kg	A	91
	<i>Cigar and cigarette lighters, charged with fuel, see Lighters for cigars, cigarettes, etc.</i>												
	Cresols	6.1	UN2076	II	6.1, 8	IB8, IP2, IP4, T7, TP2.	None	202	243	1 L	30 L	B.	
	Diborane, compressed	2.3	UN1911		2.3, 2.1	1	None	302	None	Forbidden	Forbidden	D	40, 57
	Diethylamino-propylamine	3	UN2684	III	3, 8	B1, IB3, T4, TP1.	150	203	242	5 L	60 L	A.	
	Dimethylcyclo-hexylamine	8	UN2264	II	8, 3	B2, IB2, T7, TP2.	154	202	243	1 L	30 L	A	40
	Ethyl methacrylate	3	UN2277	II	3	IB2, T4, TP1.	150	202	242	5 L	60 L	B.	
	Ethylbutyl acetate	3	UN1177	III	3	B1, IB3, T2, TP1.	150	203	242	60 L	220 L	A.	
	Ethylene, compressed	2.1	UN1962		2.1		306	304	302	Forbidden	150 kg	E	40
	Hexafluoroethane, compressed or Refrigerant gas R 116.	2.2	UN2193		2.2		306	304	314, 315	75 kg	150 kg	A.	

§ 172.101 HAZARDOUS MATERIALS TABLE—Continued

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or division	Identification numbers	PG	Label Codes	Special provisions	(8) Packaging (§ 173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Hydrazine, anhydrous or Hydrazine aqueous solutions with more than 64 percent hydrazine, by mass.	8	UN2029	I	8, 3, 6.1	A3, A6, A7, A10, B7, B16, B53.	None	201	243	Forbidden	2.5 L	D	21, 40, 42, 100
	Hydrazine hydrate or Hydrazine aqueous solutions, with not less than 37 percent but not more than 64 percent hydrazine, by mass.	8	UN2030	II	8, 6.1	B16, B53, IB2, T7, TP2, TP13.	None	202	243	Forbidden	30 L	D	40, 42, 82
	Lighters or Lighter refills cigarettes, containing flammable gas.	2.1	UN1057		2.1	N10	None	21, 308	None	1 kg	15 kg	B	40
	Lithium hydroxide, monohydrate or Lithium hydroxide, solid.	8	UN2680	II	8	IB8, IP2, IP4.	154	212	240	15 kg	50 kg	A.	
	Nitrogen trifluoride, compressed.	2.2	UN2451		2.2, 5.1		None	302	None	75 kg	150 kg	D	40
	Phosphoric acid, liquid or solid.	8	UN1805	III	8	A7, IB3, IP3, N34, T4, TP1.	154	203	241	5 L	60 L	A.	
	Phosphorus pentafluoride, compressed.	2.3	UN2198		2.3, 8	2, B9, B14	None	302, 304	314, 315	Forbidden	Forbidden	D	40
	Propyl chloride	3	UN1278	II	3	IB2, IP8, N34, T7, TP2.	None	202	242	Forbidden	60 L	E.	
	Refrigerating machines, containing non-flammable, non-toxic liquefied gas or ammonia solution (UN2672).	2.2	UN2857		2.2	A53	306, 307	306	306, 307	450 kg	450 kg	A.	
	Silane, compressed	2.1	UN2203		2.1		None	302	None	Forbidden	Forbidden	E	40, 57, 104
	Silicon tetrafluoride, compressed.	2.3	UN1859		2.3, 8	2	None	302	None	Forbidden	Forbidden	D	40
	Tetrachloroethane	6.1	UN1702	II	6.1	IB2, N36, T7, TP2.	None	202	243	5 L	60 L	A	40
	Tetrafluoromethane, compressed or Refrigerant gas R 14.	2.2	UN1982		2.2		None	302	None	75 kg	150 kg	A.	
D	Uranium nitrate hexahydrate solution.	7	UN2980		7, 8		421, 427	415, 416, 417.	415, 416, 417.			D	95
	Xenon, compressed	2.2	UN2036		2.2		306	302	None	75 kg	150 kg	A.	
	Xylidines, solution	6.1	UN1711	II	6.1	IB2, T7, TP2.	None	202	243	5 L	60 L	A.	
	[ADD] Accumulators, pressurized, pneumatic or hydraulic (containing non-flammable gas), see Articles pressurized, pneumatic or hydraulic (containing non-flammable gas).												

I	Air bag inflators, or Air bag modules, or Seat-belt pretensioners.	* 1.4G UN0503	....	II	1.4G	161	None	62	None	Forbidden	75kg	02.
	Air bag inflators, or Air bag modules, or Seat-belt pretensioners.	9 UN3268	....	III	9	160	166	166	166	25 kg	100 kg	A.
	Ammonium nitrate emulsion or Ammonium nitrate suspension or Ammonium nitrate gel, intermediate for blasting explosives.	* 5.1 UN3375	....	II	5.1	52, 147	None	214	214	Forbidden	Forbidden	D 48, 59, 60, 124
	Ammonium nitrate based fertilizer.	* 5.1 UN2067	....	III	5.1	52, 150, IB8, IP3.	152	213	240	25 kg	100 kg	B 48, 59, 60, 117
A, W	Ammonium nitrate based fertilizer.	9 UN2071	....	III	9	132, IB8	155	213	240	200 kg	200 kg	A.
	Ammonium nitrate, with not more than 0.2% total combustible material, including any organic substance, calculated as carbon to the exclusion of any other added substance.	* 5.1 UN1942	....	III	5.1	A1, A29, IB8, IP3.	152	213	240	25 kg	100 kg	A 48, 59, 60, 116
	Boron trifluoride	* 2.3 UN1008	....		2.3	2, B9, B14	None	302	314, 315	Forbidden	Forbidden	D 40
	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	5.1	IB8, IP2, IP4, W9.	152	212	240	5 kg	25 kg	D 4, 5, 25, 48, 56, 58, 69
	Carbonyl fluoride	* 2.3 UN2417	....		2.3, 8	2	None	302	None	Forbidden	Forbidden	D 40
+	Chlorodinitrobenzenes, liquid.	* 6.1 UN1577	....	II	6.1	IB2, T11, TP2, TP27.	None	202	243	5 L	60 L	B 91
+	Chlorodinitrobenzenes, solid.	6.1 UN1577	....	II	6.1	IB8, IP4, T7, TP2.	None	212	242	25 kg	100 kg	A 91
	1-Chloropropane	* 3 UN1278	....	II	3	IB2, N34, T7, TP2.	None	202	242	Forbidden	60 L	E.
	Chlorosilanes, toxic, corrosive, n.o.s.	* 6.1 UN3361	....	II	6.1, 8	IB1, T11, TP2, TP13.	None	202	243	1 L	30 L	C 40
	Chlorosilanes, toxic, corrosive, flammable, n.o.s.	6.1 UN3362	....	II	6.1, 3, 8	IB1, T11, TP2, TP13.	None	202	243	1 L	30 L	C 40, 125

§ 172.101 HAZARDOUS MATERIALS TABLE—Continued

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or division	Identification numbers	PG	Label Codes	Special provisions	(8) Packaging (§ 173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	<i>Cigar and cigarette lighters, charged with fuel, see Lighters or Lighter refills containing flammable gas.</i>	*	*		*	*	*		*	*			
	Cresols, liquid .....	6.1	UN2076	II	6.1, 8	IB8, IP2, IP4, T7, TP2.	None	202	243	1 L	30 L	B.	
	Cresols, solid .....	6.1	UN2076	II	6.1, 8	IB8, IP2, IP4, T7, TP2.	None	202	243	1 L	30 L	B.	
	Diborane .....	2.3	UN1911		2.3, 2.1	1	None	302	None	Forbidden	Forbidden	D	40, 57
	3-Diethylamino-propylamine.	3	UN2684	III	3, 8	B1, IB3, T4, TP1.	150	203	242	5 L	60 L	A.	
	N, N-Dimethylcyclohexylamine.	8	UN2264	II	8, 3	B2, IB2, T7, TP2.	154	202	243	1 L	30 L	A	40
	Ethyl methacrylate, stabilized.	3	UN2277	II	3	IB2, T4, TP1.	150	202	242	5 L	60 L	B.	
	2-Ethylbutyl acetate .....	3	UN1177	III	3	B1, IB3, T2, TP1.	150	203	242	60 L	220 L	A.	
	Ethylene .....	2.1	UN1962		2.1	306	304	302	Forbidden	150kg	E	40.	
	Ethylene glycol diethyl ether.	3	UN1153	II	3	IB2, T4, TP1.	150	202	242	5 L	60 L	A.	
A, I, W	Fibers, animal or vegetable <i>burnt, wet or damp.</i>	4.2	UN1372	III	4.2		151	213	240	Forbidden	Forbidden	A.	
I, W	Fibers, vegetable, dry .....	4.1	UN3360		4.1	137	151	213	240	No limit	No limit	A.	
	Hexafluoroethane, or Refrigerant gas R 116.	2.2	UN2193		2.2		306	304	314, 315	75 kg	150 kg	A.	



§ 172.101 HAZARDOUS MATERIALS TABLE—Continued

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or division	Identification numbers	PG	Label Codes	Special provisions	(8) Packaging (§ 173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Refrigerating machines, containing non-flammable, non-toxic, liquefied or compressed gas or ammonia solution (UN2672).	* 2.2	UN2857	.....	2.2	A53	306, 307	306	306, 307	450 kg	450 kg	A.	
	Rubber scrap or shoddy, powdered or granulated, not exceeding 840 microns and rubber content exceeding 45%.	* 4.1	UN1345	.....	II	4.1	151	212	240	15 kg	50 kg	A.	
	Silane	* 2.1	UN2203	.....	2.1		None	302	None	Forbidden	Forbidden	E	40, 57, 104
	Silicon tetrafluoride	* 2.3	UN1859	.....	2.3, 8	2	None	302	None	Forbidden	Forbidden	D	40
	Sodium dinitro-oresolate, wetted, with not less than 10% water by mass.	* 4.1	UN3369	.....	I	4.1	None	211	None	0.5 kg	0.5 kg	E	36
	1,1,2,2-Tetrachloroethane	* 6.1	UN1702	.....	II	6.1	None	202	243	5 L	60 L	A	40
	Tetrafluoromethane, or Refrigerant gas R 14.	* 2.2	UN1982	.....	2.2		None	302	None	75 kg	150 kg	A.	
A, I, W	Textile waste, wet	* 4.2	UN1857	.....	III	4.2	151	213	240	Forbidden	Forbidden	A.	
	Trinitrobenzene, wetted, with not less than 10% water by mass.	* 4.1	UN3367	.....	I	4.1	None	211	None	0.5 kg	0.5 kg	E	36
	Trinitrobenzoic acid, wetted, with not less than 10% water by mass.	* 4.1	UN3368	.....	I	4.1	None	211	None	0.5 kg	0.5 kg	E	36
	Trinitrochlorobenzene (picryl chloride), wetted, with not less than 10% water by mass.	* 4.1	UN3365	.....	I	4.1	None	211	None	0.5 kg	0.5 kg	E	36



§ 172.101 HAZARDOUS MATERIALS TABLE—Continued

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or division	Identification numbers	PG	Label Codes	Special provisions	(8) Packaging (§ 173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
							(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Ammonia solutions, relative density between 0.880 and 0.957 at 15 degrees C in water, with more than 10 percent but not more than 35 percent ammonia.	8	UN2672	III	8	IB3, IP8, T7, TP1.	154	203	241	5 L	60 L	A	40, 85
	Ammunition, smoke with or without burster, expelling charge or propelling charge.	1.2G	UN0015	II	1.2G			62	None	Forbidden	Forbidden		8E, 17E, 20E
	Ammunition, smoke with or without burster, expelling charge or propelling charge.	1.3G	UN0016	II	1.3G			62	None	Forbidden	Forbidden		8E, 17E, 20E
	Ammunition, smoke with or without burster, expelling charge or propelling charge.	1.4G	UN0303	II	1.4G			62	None	Forbidden	75 kg		7E, 8E, 14E, 15E, 17E
	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	6.1	T14, TP2, TP9, TP13, TP27.	None	201	243	1 L	30 L	B	40
				II	6.1	IB2, T11, TP2, TP13, TP27.	None	202	243	5 L	60 L	B	40
				III	6.1	IB3, T7, TP2, TP28.	153	203	241	60 L	220 L	B	40
	Asbestos	9	NA2212	III	9	156, IB8, IP2, IP4.	155	216	240	200 kg	200 kg	A	34, 40
	Barium azide, wetted with not less than 50 percent water, by mass.	4.1	UN1571	I	4.1, 6.1	162, A2	None	182	None	Forbidden	0.5	D	28
	Battery fluid, alkali	8	UN2797	II	8	B2, IB2, N6, T7, TP2, TP28.	154	202	242	1 L	30 L	A	26

I	Blue asbestos (Crocidolite) or Brown asbestos (amosite, mysorite).	*	9	UN2212	....	II	9	.....	156, IB8, IP2, IP4.	155	.....	216	.....	240	.....	Forbidden	Forbidden	A	.....	34, 40		
	5-tert-Butyl-2,4,6-trinitro- m-xylene or Musk xy- lene.	*	4.1	UN2956	....	III	4.1	.....	159	.....	None	.....	223	.....	None	.....	Forbidden	Forbidden	.....	D12, 25, 48, 127		
	Chemical kits	*	9	UN3316	....	.....	9	.....	15	.....	161	.....	161	.....	None	.....	10 kg	.....	10 kg	.....	A	.....
	Chloroacetic acid, molten	*	6.1	UN3250	....	II	6.1, 8	.....	IB1, T7, TP3, TP28.	None	.....	202	.....	243	.....	Forbidden	Forbidden	C	.....	40		
	4-Chloro-o-toluidine hy- drochloride.	*	6.1	UN1579	....	III	6.1	.....	IB8, IP3, T4, TP1.	153	.....	213	.....	240	.....	100 kg	.....	200 kg	.....	A	.....	
	Coating solution (includes surface treatments or coatings used for indus- trial or other purposes such as vehicle under- coating, drum or barrel lining).	*	3	UN1139	....	II	3	.....	149,IB2, T4, TP1, TP8.	150	.....	202	.....	242	.....	5 L	.....	60 L	.....	B	.....	
	Dichlorodimethyl ether, symmetrical.	*	6.1	UN2249	....	I	6.1, 3	.....	.....	None	.....	201	.....	243	.....	Forbidden	Forbidden	.....	.....	40		
	Dipicryl sulfide, wetted with not less than 10 percent water, by mass.	*	4.1	UN2852	....	I	4.1	.....	162, A2, N41, N84.	None	.....	211	.....	None	.....	Forbidden	0.5 kg	.....	D	.....	28	
G	Environmentally haz- ardous substances, liq- uid, n.o.s.	*	9	UN3082	....	III	9	.....	8, 146, IB3, T4, TP1, TP29.	155	.....	203	.....	241	.....	No limit	.....	No limit	.....	A	.....	
G	Environmentally haz- ardous substances, solid, n.o.s.	*	9	UN3077	....	III	9	.....	8, 146, B54, IB8, N20.	155	.....	213	.....	240	.....	No limit	.....	No limit	.....	A	.....	
	Extracts, aromatic, liquid	*	3	UN1169	....	II	3	.....	149, IB2, T4, TP1, TP8.	150	.....	202	.....	242	.....	5 L	.....	60 L	.....	B	.....	
	Extracts, flavoring, liquid ..	*	3	UN1197	....	II	3	.....	149, IB2, T4, TP1, TP8.	150	.....	202	.....	242	.....	5 L	.....	60 L	.....	B	.....	
	First aid kits	*	9	UN3316	....	.....	9	.....	15	.....	161	.....	161	.....	None	.....	10 kg	.....	10 kg	.....	A	.....
W	Fish meal, stabilized or Fish scrap, stabilized.	*	9	UN2216	....	III	.....	.....	155, IB8	155	.....	218	.....	218	.....	No limit	.....	No limit	.....	B	.....	88, 122, 128
	Fish meal, unstabilized or Fish scrap, unstabilized.	*	4.2	UN1374	....	II	4.2	.....	155, A1, A19, IB8, IP2.	None	.....	212	.....	241	.....	15 kg	.....	50 kg	.....	B	.....	88, 122, 128

§ 172.101 HAZARDOUS MATERIALS TABLE—Continued

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or division	Identification numbers	PG	Label Codes	Special provisions	(8) Packaging (§ 173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
G	Flammable liquids, n.o.s.	*	3 UN1993	I	3	T11, TP1, TP27.	150	201	243	1 L	30 L	E	
	Hydrobromic acid, with not more than 49 percent hydrobromic acid. (Revision to PG III entry only).	*	8 UN1788	III	8	IB3, T4, TP1.	154	203	241	5 L	60 L	C	8
	Hydrocarbons, liquids, n.o.s.	*	3 UN3295	I	3	T11, TP1, TP8, TP28.	150	201	243	1 L	30 L	E	
	Hydrogen peroxide and peroxacetic acid mixtures, stabilized with acids, water and not more than 5 percent peroxyacetic acid.	*	5.1 UN3149	II	5.1, 8	145, A2, A2, A6, B53, IB2, IP5, T7, TP2, TP6, TP24.	None	202	243	1 L	5 L	D	25, 66, 75, 106
	Iodine pentafluoride	*	5.1 UN2495	I	5.1, 6.1, 8		None	205	243	Forbidden	Forbidden	D	25, 40, 66, 90
	Isosorbide dinitrate mixture with not less than 60 percent lactose, mannose, starch or calcium hydrogen phosphate.	*	4.1 UN2907	II	4.1	IB6, IP2, N85.	None	212	None	15 kg	50 kg	E	
	Lithium batteries, contained in equipment.	*	9 UN3091	II	9	29, A54, A55.	185	185	None	5 kg	5 kg	A	
	Lithium batteries packed with equipment.	*	9 UN3091	II	9	29, A54, A55.	185	185	None	5 kg gross	35 kg gross	A	
	Lithium battery	*	9 UN3090	II	9	29, A54, A55.	185	185	None	5 kg gross	35 kg gross	A	
	Medicine, liquid, toxic, n.o.s.	*	6.1 UN1851	II III	6.1 6.1	36 36	153 153	202 203	243 241	5 L 5 L	5 L 5 L	C C	40 40
	Methacrylic acid, stabilized.	*	8 UN2531	II	8	IB3, T4, TP1, TP18, TP30.	154	202	242	1 L	30 L	C	40



§ 172.101 HAZARDOUS MATERIALS TABLE—Continued

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or division	Identification numbers	PG	Label Codes	Special provisions	(8) Packaging (§ 173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Piperazine .....	* 8	* UN2579	III	8	IB8, IP3, T4, TP1, TP30.	154	213	240	25 kg	100 kg	A	12
	Polyester resin kit .....	* 3	* UN3269		3	40, 149	152	225	None	5 kg	5 kg	B	
	Potassium .....	* 4.3	* UN2257	I	4.3	A19, A20, B27, IB1, IP1, N6, N34, T9, TP3, TP7, TP31.	None	211	244	Forbidden	15 kg	D	
	Potassium sodium alloys	* 4.3	* UN1422	I	4.3	A19, B27, IB4, IP1, N34, N40, T9, TP3, TP7, TP31.	None	211	244	Forbidden	15 kg	D	
	Printing ink, <i>flammable or</i> Printing ink related material ( <i>including printing ink thinning or reducing compound</i> ), <i>flammable</i> .	* 3	* UN1210	II	3	149, IB2, T4, TP1, TP8.	150	173	242	5 L	60 L	B	
D	Radioactive material, fissile, n.o.s.	* 7	* UN2918		7	A56	453	417	417			A	95, 105
I	Radioactive material, low specific activity (LSA-I) <i>non fissile or fissile-excepted</i> .	* 7	* UN2912		7	A56, T5, TP4, W7.	421, 422, 428.	427	427			A	95, 129
I	Radioactive material, low specific activity (LSA-II) <i>non fissile or fissile-excepted</i> .	* 7	* UN3321		7	A56, T5, TP4, W7.	421, 422, 428.	427	427			A	95, 129
I	Radioactive material, low specific activity (LSA-II) <i>non fissile or fissile excepted</i> .	* 7	* UN3322		7	A56, T5, TP4, W7.	421, 422, 428.	427	427			A	95, 129
D	Radioactive material, low specific activity, n.o.s. or Radioactive material, LSA, n.o.s.	* 7	* UN2912		7	A56, T5, TP4.	421, 428	427	427			A	95, 129
D	Radioactive material n.o.s	* 7	* UN2982		7	A56	421, 428	415, 416	415, 416			A	95

D	Radioactive material, special form, n.o.s.	7	UN2974	7	A56	421, 424	415, 416	415, 416	A	95		
D	Radioactive material, surface contaminated object or Radioactive material, SCO.	7	UN2913	7	A56	421, 424, 426.	427	427	A	95		
D	Radioactive material surface contaminated objects (SCO-I or SCO-II) non fissile or fissile-excepted.	7	UN2913	7	A56	421, 422, 428.	427	427	A	95		
I	Radioactive material, transported under special arrangement, non fissile or fissile excepted.	7	UN2919	7	A56, 139				A	95, 105		
I	Radioactive material, transported under special arrangement, fissile.	7	UN3331	7	A56, 139				A	95, 105		
I	Radioactive material, Type A package, fissile non-special form.	7	UN3327	7	A56, W7, W8.	453	417	417	A	95, 105, 131		
I	Radioactive material, Type A package non-special form, non fissile or fissile-excepted.	7	UN2915	7	A56, W7, W8.		415	415	A	95, 130		
I	Radioactive material, Type A package, special form non fissile or fissile-excepted.	7	UN3332	7	A56, W7, W8.		415, 476	415, 476	A	95		
I	Radioactive material, Type A package, special form, fissile.	7	UN3333	7	A56, W7, W8.	453	417, 476	417, 476	A	95, 105		
I	Radioactive material, Type B(M) package, fissile.	7	UN3329	7	A56	453	417	417	A	95, 105		
I	Radioactive material, Type B(M) package non fissile or fissile-excepted.	7	UN2917	7	A56		416	416	A	95, 105		
I	Radioactive material, Type B(U) package, fissile.	7	UN3328	7	A56	453	417	417	A	95, 105		
I	Radioactive material, Type B(U) package non fissile or fissile-excepted.	7	UN2916	7	A56		416	416	A	95, 105		
I	Radioactive material, uranium hexafluoride non fissile or fissile-excepted.	7	UN2978	7, 8		423	420, 427	420, 427	A	95, 132		
I	Radioactive material, uranium hexafluoride, fissile.	7	UN2977	7, 8		453	417, 420	417, 420	A	95, 132		
	Resin solution, flammable	*	3 UN1866	II	3	149, B52, IB2, T4, TP1, TP8.	150	173	242	5 L	60 L	B
	Rubber solution	*	3 UN1287	II	3	149, IB2, T4, TP1, TP8.	150	202	242	5 L	60 L	B

§ 172.101 HAZARDOUS MATERIALS TABLE—Continued

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or division	Identification numbers	PG	Label Codes	Special provisions	(8) Packaging (§ 173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
G	Self-reactive liquid type F	* 4.1	UN3229	II	4.1	T23	None	114	None	10 L	25L	D	61
	Silver picrate, wetted with not less than 30 percent water, by mass.	* 4.1	UN1347	I	4.1	23	None	211	None	Forbidden	Forbidden	D	28, 36
	Sludge, acid	* 8	UN1906	II	8	A3, A7, B2, IB2, N34, T8, TP2, TP12, TP28.	None	202	242	Forbidden	30 L	C	14
	Sodium	* 4.3	UN1428	I	4.3	A7, A8, A19, A20, B9, B48, B68, IB4, IP1, N34, T9, TP3, TP7, TP31, TP46.	None	211	244	Forbidden	15 kg	D	
D	Sulfur, molten	* 9	NA2448	III	9	30, IB3,, T1, TP3.	None	213	247	Forbidden	Forbidden	C	61
I	Sulfur, molten	* 4.1	UN2448	III	4.1	30, IB1, T1, TP3.	None	213	247	Forbidden	Forbidden	C	74
	Tars, liquid including road asphalt and oils, bitumen and cut backs.	* 3	UN1999	II	3	149, B13, IB2, T3, TP3, TP29.	150	202	242	5 L	60 L	B	
D	Thorium metal, pyrophoric	* 7	UN2975		7, 4.2	A56	None	418	None			D	95
D	Thorium nitrate, solid	* 7	UN2976		7, 5.1		None	419	None	Forbidden	15 kg	A	95
D	Uranium hexafluoride, fissile excepted or non-fissile.	* 7	UN2978		7, 8		423	420, 427	420, 427			A	95, 132
D	Uranium hexafluoride, fissile (with more than 1 percent U-235).	* 7	UN2977		7, 8		453	417, 420	417, 420			A	95, 132
D	Uranium metal, pyrophoric	* 7	UN2979		7, 4.2	A56	None	418	None			D	95
D	Uranyl nitrate, solid	* 7	UN2981		7, 5.1		None	419	None	Forbidden	15 kg	A	95



10. In Appendix B to § 172.101, paragraphs 4. and 5. would be revised and the List of Marine Pollutants would be amended by removing 5 entries, and adding 2 entries in appropriate alphabetical order to read as follows:

**Appendix B to § 172.101—List of Marine Pollutants**

\* \* \* \* \*

4. If a material is not listed in this appendix and meets the criteria for a

marine pollutant as provided in Chapter 2.10 of the IMDG Code, “Guidelines for the Identification of Harmful Substances in Packaged Form” (incorporated by reference; see § 171.7 of this subchapter), the material may be transported as a marine pollutant in accordance with the applicable requirements of this subchapter.

5. If a material listed in this appendix does not meet the criteria for a marine

pollutant as provided in Chapter 2.10 of the IMDG Code, “Guidelines for the Identification of Harmful Substances in Packaged Form” (incorporated by reference; see § 171.7 of this subchapter), it may be excepted from the requirements of this subchapter as a marine pollutant if that exception is approved by the Associate Administrator.

\* \* \* \* \*

**LIST OF MARINE POLLUTANTS**

[Remove:]	S.P.M. (1)	(2)
		Marine pollutant Alkylbenzenesulphonates, branched and straight chain. Alkylphenols, liquid, n.o.s. (including C2–C12 homologues). Alkylphenols, solid, n.o.s. (including C2–C12 homologues). Chlorophenols, liquid. Chlorophenols, solid.
[Add:]	*	*
		Alkybenzenesulphonates, branched and straight chain (excluding C11–C13 straight chain or branched chain homologues).
	*	*
		Decyl acrylate.
	*	*

11. In § 172.102:  
 a. In paragraph (c)(1), Special Provisions 15, 30, 52, 130 and 132 would be revised; Special Provisions 7, 10 and 133 would be removed; and Special Provisions 145, 146, 147, 149, 150, 151, 153, 155, 156, 157, 159, 160, 161 and 162 would be added.  
 b. In paragraph (c)(2), Special Provisions A54, A55 and A56 would be added.  
 c. In paragraph (c)(4), the text would be revised; in Table 1, Special Provision IB3 would be revised; in Table 2, the Table heading would be revised, 1 entry would be removed, 4 entries would be added, and 1 entry would be revised; and in Table 3, Special Provision IP8 would be added.  
 d. In paragraph (c)(5), Special Provisions N83, N84 and N85 would be added.  
 e. In paragraph (c)(7)(iii), Portable Tank Code T23 would be revised by removing 2 entries, adding 4 entries, and revising 2 entries.  
 f. In paragraph (c)(7)(viii), Special Provision TP3 would be revised.

The additions and revisions would read as follows:

**§ 172.102 Special provisions.**

\* \* \* \* \*

- (c) \* \* \*
- (1) \* \* \*

*Code/Special Provisions*  
 \* \* \* \* \*  
 15 This entry applies to “Chemical kits” and “First aid kits” containing one or more compatible items of hazardous materials in boxes, cases, etc. that are used for medical, analytical, diagnostic or testing purposes. For transportation by aircraft, materials forbidden for transportation by passenger aircraft or cargo aircraft may not be included in the kits. The quantity of hazardous materials in any inner packaging must not exceed the limited quantity inner packaging limits specified for each hazardous material in the applicable limited quantity sections (§ 173.150 through § 173.155, and § 173.306) in Part 173 of this subchapter. Each package must conform to the packaging requirements of Subpart B of Part 173 and must not exceed 30 kg (66 lbs.) gross weight. Chemical and first aid kits are excepted from labeling, unless offered or intended for transportation by aircraft, from the specification packaging requirements of this subchapter when packaged in combination packagings, and from the placarding requirements of this subchapter. Chemical and first aid kits may be transported in accordance with the consumer commodity and ORM exceptions in § 173.156, provided they meet all required conditions. Kits that

are carried on board transport vehicles for first aid or operating purposes are not subject to the requirements of this subchapter.

\* \* \* \* \*

30 Sulfur is not subject to the requirements of this subchapter if transported in a non-bulk packaging or if formed to a specific shape (for example, prills, granules, pellets, pastilles, or flakes). A bulk packaging is not subject to the placarding requirements of subpart F of this part, if it is marked with the appropriate identification number as required by subpart D of this part. Molten sulfur must be marked as required by § 172.325 of this subchapter.

\* \* \* \* \*

52 This entry may only be used for substances that do not exhibit explosive properties of Class 1 (explosive) when tested in accordance with Test Series 1 and 2 of Class 1 (explosive) in the UN Manual of Tests and Criteria, Part I (incorporated by reference; see § 171.7 of this subchapter).

\* \* \* \* \*

130 For other than a dry battery specifically covered by another entry in the § 172.101 Table, “Batteries, dry” are not subject to the requirements of this subchapter when they are securely packaged and offered for transportation in a manner that prevents the dangerous

evolution of heat (for example, by the effective insulation of exposed terminals) and protects against short circuits.

\* \* \* \* \*

132 This entry may only be used for uniform, ammonium nitrate-based fertilizer mixtures, containing nitrogen, phosphate or potash, meeting the following criteria: (1) Contains not more than 70% ammonium nitrate; and (2) Contains not more than 0.4% total combustible, organic material calculated as carbon or with not more than 45% ammonium nitrate and unrestricted combustible material. Fertilizers within these composition limits are only subject to the requirements of this subchapter when transported by air or sea, and are not subject to the requirements of this subchapter if shown by a trough test, as specified in the UN Manual of Tests and Criteria, Part III, sub-section 38.2 (incorporated by reference; see § 171.7 of this subchapter), not to be liable to self-sustaining decomposition.

\* \* \* \* \*

145 This entry applies to formulations that neither detonate in the cavitated state nor deflagrate in laboratory testing, show no effect when heated under confinement, exhibit no explosive power, and are thermally stable (that is the self-accelerating decomposition temperature (SADT) at 60 °C (140 °F) or higher for a 50 kg (110.2 lbs.) package). Formulations not meeting these criteria must be transported under the provisions applicable to the appropriate entry in the Organic Peroxide Table in § 173.225 of this subchapter.

146 This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in § 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination.

147 This entry applies to non-sensitized emulsions, suspensions and gels consisting primarily of a mixture of ammonium nitrate and a fuel intended to produce a Type E blasting explosive only after further processing. The mixture typically has the following composition: 60–85% ammonium nitrate; 5–30% water; 2–8% fuel; 0.5–4% emulsifier or thickening agent; 0–10% soluble flame suppressants; and trace additives. Other inorganic nitrate salts may replace part of the ammonium nitrate. These substances may not be

classified and transported unless approved by the Associate Administrator.

\* \* \* \* \*

149 When transported as a limited quantity, the maximum net capacity for inner packagings may be increased to 5 L (1.3 gallons).

150 This description may be used only for uniform mixtures of fertilizers containing ammonium nitrate as the main ingredient within the following composition limits:

a. Not less than 90% ammonium nitrate with not more than 0.2% total combustible, organic material calculated as carbon, and with added matter, if any, that is inorganic and inert when in contact with ammonium nitrate; or

b. Less than 90% but more than 70% ammonium nitrate with other inorganic materials, or more than 80% but less than 90% ammonium nitrate mixed with calcium carbonate and/or dolomite, and not more than 0.4% total combustible, organic material calculated as carbon; or

c. Ammonium nitrate-based fertilizers containing mixtures of ammonium nitrate and ammonium sulphate with more than 45% but less than 70% ammonium nitrate, and not more than 0.4% total combustible, organic material calculated as carbon such that the sum of the percentage of compositions of ammonium nitrate and ammonium sulphate exceeds 70%.

151 If this material meets the definition of a flammable liquid in § 173.120 of this subchapter, a flammable liquid label is also required and the basic description on the shipping paper must indicate the Class 3 subsidiary hazard.

\* \* \* \* \*

153 The following applies to aerosols:

a. Division 2.1 applies when the aerosol is flammable according to § 173.306(j) of this subchapter.

b. Division 2.2 applies when the contents of the aerosol do not meet the above criteria for Division 2.1, or Division 2.3.

c. Gases of Division 2.3 may not be used in an aerosol dispenser.

d. When the contents are classified as Division 6.1, or Class 8, the aerosol must have a subsidiary risk of Division 6.1 or Class 8.

e. Aerosols with contents meeting the criteria for PG I and PG II for Division 6.1 or Class 8 are forbidden for transportation.

f. Aerosols must meet the definition for aerosols in § 171.8 of this subchapter.

\* \* \* \* \*

155 Fish meal or fish scrap may not be transported if the temperature at the time of loading either exceeds 35 °C (95 °F), or exceeds 5 °C (41 °F) above the ambient temperature, whichever is higher.

156 Asbestos that is immersed or fixed in a natural or artificial binder material such as cement, plastic, asphalt, resins or mineral ore, and manufactured products containing asbestos are not subject to the requirements of this subchapter.

157 This entry includes hybrid electric vehicles powered by both an internal combustion engine and wet, sodium or lithium batteries, transported with one or more batteries installed. Vehicles containing an internal combustion engine must be described as "Vehicle, flammable gas powered," UN3166, or "Vehicle, flammable liquid powered," UN3166, as appropriate.

159 This material must be protected from direct sunshine and kept in a cool, well-ventilated place away from sources of heat.

160 This entry applies to articles that are used as life-saving vehicle air bag inflators, air bag modules or seat-belt pretensioners that contain Class 1 (explosive) materials or materials of other hazard classes. Air bag inflators and modules must be tested in accordance with Test series 6(c) of Part I of the UN Manual of Tests and Criteria (incorporated by reference; see § 171.7 of this subchapter), with no explosion of the device, no fragmentation of device casing or pressure vessel, and no projection hazard or thermal effect that would significantly hinder fire-fighting or other emergency response efforts in the immediate vicinity. If the air bag inflator unit satisfactorily passes the series 6(c) test, it is not necessary to repeat the test on the air bag module.

161 For domestic transport, air bag inflators or air bag modules that meet the criteria for a Division 1.4G explosive must be transported using the description, "Articles, pyrotechnic for technical purposes," UN0431.

162 This material may be transported under the provisions of Division 4.1 only if it is so packed that at no time during transport will the percentage of diluent fall below the percentage that is stated in the shipping description.

(2) \* \* \*

#### Code/Special Provisions

\* \* \* \* \*

A54 Lithium batteries or lithium batteries contained or packed with equipment that exceed 35 kg (77 pounds) gross weight may only be

transported on cargo aircraft if approved by the Associate Administrator.

A55 Prototype lithium batteries and cells that are packed with not more than 24 cells or 12 batteries per packaging that have not completed the test requirements in Sub-section 38.3 of the UN Manual of Tests and Criteria (incorporated by reference; see § 171.7 of this subchapter) may be transported by cargo aircraft if approved by the Associate Administrator and provided the following requirements are met:

a. The cells and batteries must be transported in rigid outer packagings that conform to the requirements of part 178 of this subchapter at the Packing Group I performance level ; and

b. Each cell and battery must be protected against short circuiting, surrounded by cushioning material that is non-combustible and non-conductive, and be individually packed in an inner packaging that is placed inside an outer specification packaging.

A56 Radioactive material with a subsidiary hazard of Division 4.2, Packing Group I, must be transported by aircraft in Type B packages. Radioactive material with a subsidiary hazard of Division 2.1 is forbidden from transport on passenger aircraft.

(4) *Table 1, Table 2, and Table 3—IB Codes, Organic Peroxide IBC Code, and IP Special IBC Packing Provisions.*

These provisions apply only to transportation in IBCs. When no IBC code is assigned in the § 172.101 Table for a specific proper shipping name, an IBC may be authorized when approved by the Associate Administrator. When only certain types of IBCs are authorized in Table 2 (IBC Code IB52), alternative types of IBCs may be authorized when approved by the Associate Administrator. The letter “Z” shown in the marking code for composite IBCs must be replaced with a capital code letter designation found in § 178.702(a)(2) of this subchapter to specify the material used for the outer packaging. Tables 1, 2, and 3 follow:

TABLE 1.—IB CODES (IBC CODES)

IBC code	Authorized IBCs
IB3	<p><i>Authorized IBCs:</i> Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2).</p> <p><i>Additional Requirement:</i> Only liquids with a vapor pressure less than or equal to 110 kPa at 50 °C (1.1 bar at 122 °F), or 130 kPa at 55 °C (1.3 bar at 131 °F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 3 for UN2672).</p>

TABLE 2.—ORGANIC PEROXIDE IBC CODE (IB52)

UN No.	Organic peroxide	Type of IBC	Maximum quantity (liters)	Control temperature	Emergency temperature
3109	REMOVE:				
	Di-tert-butyl peroxide, not more than 52% in diluent type A.	31A 31HA1	1250 1000		
3109	Dicumyl peroxide, less than or equal to 100%.	31A 31HA1	1250 1000		
3109	Di-tert-butyl peroxide, not more than 52% in diluent type B.	31A 31HA1	1250 1000		
	Peroxyacetic acid, with not more than 26% hydrogen peroxide.	31A 31HA1	1500 1500		
	Peroxyacetic acid, type F, stabilized ....	31A 31HA1	1500 1500		
3110	REVISE:				
	Dicumyl peroxide, less than or equal to 100%.	31A	2000		

TABLE 3.—IP CODES

IP8 Ammonia solutions may be transported in rigid or composite plastic IBCs (31H1, 31H2 and 31HZ1) that have successfully passed, without leakage or permanent deformation, the hydraulic test specified in § 178.814 of this subchapter at a test pressure that is not less than 1.5 times the vapor pressure of the contents at 55 °C (131 °F).

(5) \* \* \*  
Code/Special Provisions

N83 This material may not be transported in quantities of more than 11.5 kg (25.4 lbs) per package.

N84 The maximum quantity per package is 500 g (1.1 lbs.).

N85 Packagings certified at the Packing Group I performance level may not be used.

(7) \* \* \*  
(iii) \* \* \*

PORTABLE TANK CODE T23

[Portable tank code T23 applies to self-reactive substances of Division 4.1 and organic peroxides of Division 5.2.]

UN No.	Hazardous material	Minimum pressure (bar)	Minimum test thickness (mm-reference steel) See...	Bottom opening requirements See...	Pressure-relief requirements See...	Filling limits	Control temperature	Emer temperature
3119	REMOVE: tert-Butyl peroxyacetate, not more than 32% in diluent type B.	4	§ 178.274(d)(2) ..	§ 178.275(d)(3) ..	§ 178.275(g)(1) ..	Not more than 90% at 59 °F (15 °C).	+30 °C .....	+35 °C
3120	Organic peroxide, Type F, solid, temperature controlled.	4	§ 178.274(d)(2) ..	§ 178.275(d)(3) ..	§ 178.275(g)(1) ..	Not more than 90% at 59 °F (15 °C).	As approved by Assoc. Admin.	As approved by Assoc. Admin.
3109	ADD: Dicumyl peroxide, less than or equal to 100% in diluent type B.	4	§ 178.274(d)(2) ..	§ 178.275(d)(3) ..	§ 178.275(g)(1) ..	Not more than 90% at 59 °F (15 °C).		
3119	tert-Butyl peroxyacetate, not more than 32% in diluent type B.	4	§ 178.274(d)(2) ..	§ 178.275(d)(3) ..	§ 178.275(g)(1) ..	Not more than 90% at 59 °F (15 °C).	+30 °C .....	+35 °C
3120	Peroxyacetic acid, distilled, stabilized, not more than 41%. Organic peroxide Type F, solid, temperature controlled.	4	§ 178.274(d)(2) ..	§ 178.275(d)(3) ..	§ 178.275(g)(1) ..	Not more than 90% at 59 °F (15 °C).	+30 .....	+35
3110	REVISE: Dicumyl peroxide, less than or equal to 100% with inert solids. Maximum quantity per portable tank 2,000 kg.	4	§ 178.274(d)(2) ..	§ 178.275(d)(3) ..	§ 178.275(g)(1) ..	Not more than 90% at 59 °F (15 °C).		

PORTABLE TANK CODE T23—Continued

[Portable tank code T23 applies to self-reactive substances of Division 4.1 and organic peroxides of Division 5.2.]

UN No.	Hazardous material	Minimum pressure (bar)	Minimum test thickness (mm-reference steel) See...	Bottom opening requirements See...	Pressure-relief requirements See...	Filling limits	Control temperature	Emer temperature
3119	tert-Butyl peroxyvalate, not more than 27% in diluent type B.	4	§ 178.274(d)(2)	§ 178.275(d)(3)	§ 178.275(g)(1)	Not more than 90% at 59 °F (15 °C).	+5 °C	+10 °C

(viii) \* \* \*

Code/Special Provisions

TP3 For materials transported under elevated temperatures, the maximum degree of filling is determined by the following:

$$\left( \text{Degree of filling} = 95 \frac{d_t}{d_f} \right)$$

Where:

$d_t$  is the density of the material at the maximum mean bulk temperature during transport; and  $d_f$  is the density of the material at the temperature in degrees celsius of the material during filling; and

12. In § 172.202, paragraphs (a)(2), (a)(5) and (b) would be revised to read as follows:

**§ 172.202 Description of hazardous material on shipping papers.**

(a) \* \* \*  
 (2) The hazard class or division number prescribed for the material, as shown in Column (3) of the § 172.101 Table. Except for combustible liquids, the subsidiary hazard class or subsidiary division number(s) must be entered in parentheses following the primary hazard class or division number. Subsidiary hazard(s) must be enclosed in parentheses following the primary hazard class or division number. The words "Class" or "Division" may be included preceding the primary and subsidiary hazard class or division numbers. The hazard class need not be included for the entry "Combustible liquid, n.o.s.";

(5) Except for empty packagings (see § 173.29 of this subchapter), cylinders for Class 2 materials and bulk packagings, the total quantity of hazardous materials covered by the description (by volume or mass, as appropriate) of each hazardous material bearing a different proper shipping name, UN number or packing group must be indicated together with the

appropriate units of measurement (for example, 200 kgs). For Class 1 (explosive) materials, the quantity must be the net explosive mass. For shipments of packages in an overpack or transport unit (for example, freight container), this information must be provided for each hazardous material in each package within the overpack or transport unit. For hazardous materials transported in salvage packagings, an estimate of the quantity must be indicated. For cylinders for Class 2 materials and bulk packagings, indication of the total quantity must be shown (for example, "10 cylinders," "2 IBCs," or "1 cargo tank"). The number of packages and type of packages (for example, drum, box, jerrican, etc.) must also be indicated. Abbreviations may be used to specify the unit of measurement for the total quantity. Examples of descriptions of units of measure and the number and type of packagings include: "1 box, net mass, 30 kg" or "2 drums, gross mass, 200 kg."

(b) Except as provided in this subpart, the basic description specified in paragraphs (a)(1), (2), (3) and (4) of this section must be shown in sequence with no additional information interspersed. For example, "Cyclobutyl chloroformate, 6.1, (8,3), UN2744, PGII." Alternatively, the identification (ID) number may be listed first and the proper shipping name may be listed directly following the class and subsidiary risk. For example, "UN2744, 6.1, (8,3), Cyclobutyl chloroformate, PGII."

**§ 172.203 [Amended]**

13. In § 172.203, paragraphs (i)(1), (i)(2), (i)(3) and (i)(6) would be removed and paragraphs (i)(4) and (i)(5) would be redesignated (i)(1) and (i)(2), respectively.

14. In § 172.301, paragraph (a)(1) is revised to read as follows:

**§ 172.301 General marking requirements for non-bulk packagings.**

(a) \* \* \*

(1) Except as otherwise provided by this subchapter, each person who offers for transportation a hazardous material in a non-bulk packaging must mark the package with the proper shipping name and identification number (preceded by "UN" or "NA," as appropriate) for the material as shown in the § 172.101 Table. Identification numbers are not required on packagings that contain only ORM-D materials. Packagings that contain only limited quantities, as defined in § 171.8 of this subchapter, may be marked with the proper shipping name, but must be marked in accordance with § 172.315.

15. In § 172.312, a new paragraph (c)(6) would be added to read as follows:

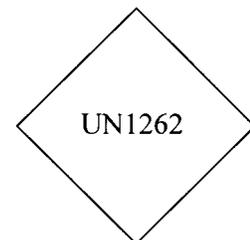
**§ 172.312 Liquid hazardous materials in non-bulk packagings.**

(c) \* \* \*  
 (6) Packages containing liquid infectious substances in primary receptacles not exceeding 50 ml (1.7 oz.).

16. A new section § 172.315 would be added to read as follows:

**§ 172.315 Packagings containing limited quantities.**

(a) Packagings containing limited quantities of hazardous materials need not be marked with the proper shipping name, but must be marked with the identification (ID) number, preceded by the letters "UN" or "NA," as applicable, and placed within a diamond as follows:



(b) The ID number marking must be durable, legible and of such a size relative to the packaging as to be readily visible. The width of line forming the

diamond must be at least 2 mm and the height of the ID number must be at least 6 mm. The marking must be applied on at least one side or one end of the outer packaging and must be durable, legible and of a size that is clearly visible.

(c) When more than one hazardous material is contained in the packaging and the hazardous materials are assigned different ID numbers, the packaging must be marked with either individual diamonds bearing a single ID number, or a single diamond large enough to include each applicable ID number.

17. A new section § 172.323 would be added to read as follows:

**§ 172.323 Air eligibility mark.**

(a) *Air eligibility marking.* Except as otherwise specified in this subchapter, each person who offers for transportation or transports by aircraft a hazardous material in a non-bulk package, including packages used for consumer commodities and limited quantities of hazardous materials, must mark the package to indicate that it meets the applicable requirements for air transport. The marking is a certification that the person offering the package into transportation has

determined that it complies with the requirements of this subchapter.

(b) The marking must be placed adjacent to the markings prescribed in § 172.301(a), or for limited quantity packages, adjacent to the marking prescribed in § 172.315. The marking must be durable, legible and of a size relative to the package so as to be readily visible. The marking must include an aircraft within a circle and may include the words "Air Eligible" in conjunction with the mark such as:



**Air Eligible**

(c) *Exceptions from the air eligibility mark.* The air eligibility mark is not required for packagings that are transported in accordance with the small quantity exception in § 173.4, or for packagings that contain solid carbon dioxide (dry ice) packaged with materials that are not subject to the requirements of this subchapter.

18. In § 172.411, the section heading and paragraphs (b) and (d) would be revised, and new paragraphs (e) and (f) would be added to read as follows:

**§ 172.411 EXPLOSIVE 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6 labels, and EXPLOSIVE Subsidiary label.**

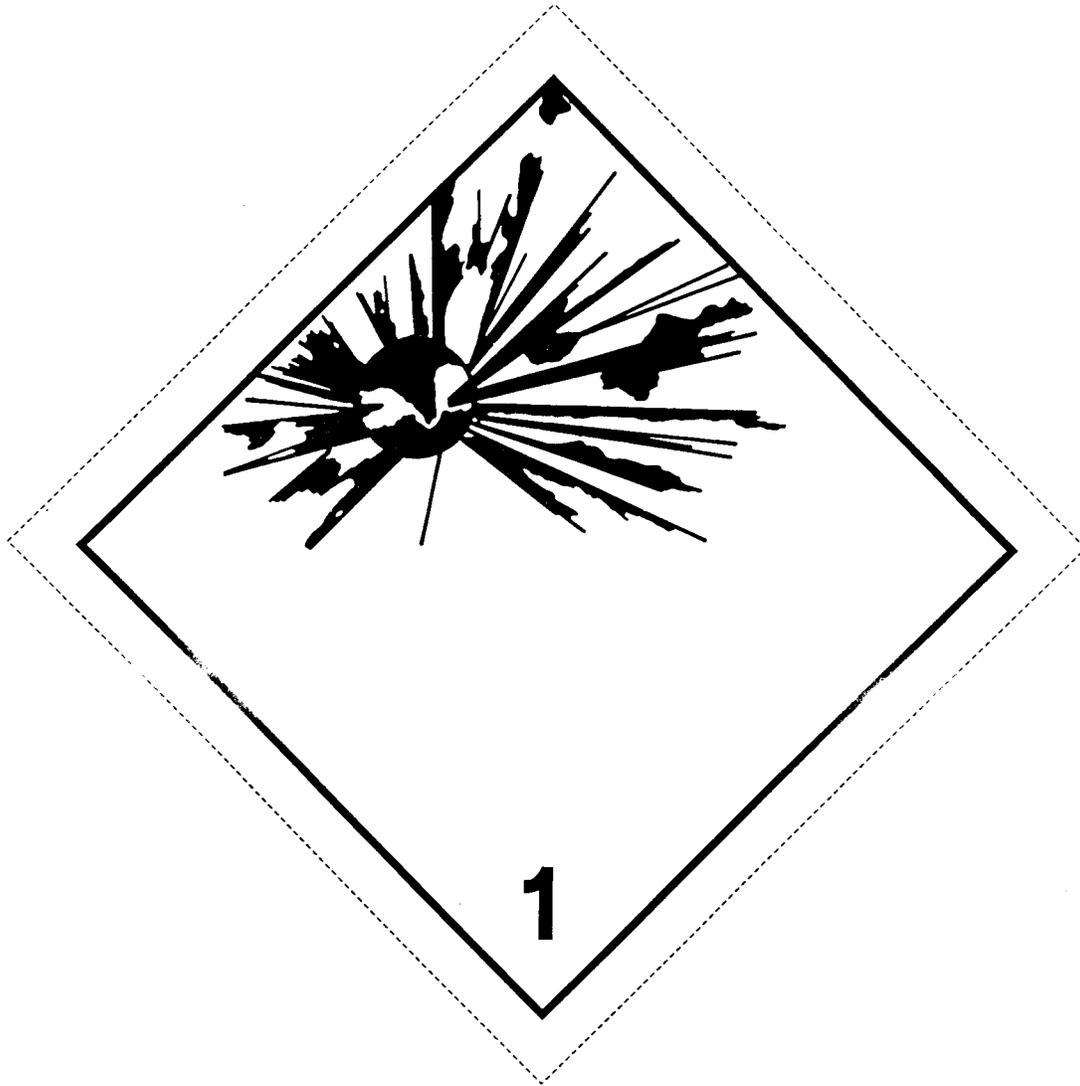
\* \* \* \* \*

(b) In addition to complying with § 172.407, the background color on the EXPLOSIVE 1.1, EXPLOSIVE 1.2 and EXPLOSIVE 1.3 labels must be orange. The "\*\*\*" must be replaced with the appropriate division number and compatibility group. The compatibility group letter must be the same size as the division number and must be shown as a capitalized Roman letter.

\* \* \* \* \*

(d) In addition to complying with § 172.407, the background color on the EXPLOSIVE 1.4, EXPLOSIVE 1.5 and EXPLOSIVE 1.6 label must be orange. The "\*\*\*" must be replaced with the appropriate compatibility group. The compatibility group letter must be shown as a capitalized Roman letter. Division numbers must measure at least 30 mm (1.2 inches) in height and at least 5 mm (0.2 inches) in width.

(e) An EXPLOSIVE subsidiary label is required for materials identified in Column (6) of the HMT as having an explosive subsidiary hazard. Except for size and color, the EXPLOSIVE subsidiary label must be as follows:



(f) In addition to complying with § 172.407, the background color on the EXPLOSIVE subsidiary label must be orange.

19. In § 172.504, paragraph (g) introductory text would be revised to read as follows:

**§ 172.504 General placarding requirements.**

\* \* \* \* \*

(g) For shipments of Class 1 (explosive materials) by aircraft or vessel, the applicable compatibility group letter must be displayed on the placards required by this section. When more than one compatibility group placard is required for Class 1 materials,

only one placard is required to be displayed, as provided in paragraphs (g)(1) through (g)(4) of this section. For the purposes of paragraphs (g)(1) through (g)(4), there is a distinction between the phrases *explosive articles* and *explosive substances*. *Explosive article* means an article containing an explosive substance; examples include a detonator, flare, primer or fuse. *Explosive substance* means a substance contained in a packaging that is not contained in an article; examples include black powder and smokeless powder.

\* \* \* \* \*

**PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS**

20. The authority citation for part 173 would continue to read as follows:

**Authority:** 49 U.S.C. 5101–5127, 44701; 49 CFR 1.53.

21. In § 173.2a, in the paragraph (b) Precedence of Hazard Table, the title of the table and the first three entries in Precedence of Hazard Table would be revised to read as follows:

**§ 173.2a Classification of a material having more than one hazard.**

\* \* \* \* \*

(b) \* \* \*

PRECEDENCE OF HAZARD TABLE  
[Hazard class or division and packing group]

	4.2	4.3	5.1 I <sup>1</sup>	5.1 II <sup>1</sup>	5.1 III <sup>1</sup>	6.1, I dermal	6.1, I oral	6.1 II	6.1 III	8, I liquid	8, I solid	8, II liquid	8, II solid	8, III liquid	8, III solid
3 I <sup>2</sup> .....	.....	4.3 .....	.....	.....	.....	3	3	3	3	3	( <sup>3</sup> )	3	( <sup>3</sup> )	3	( <sup>3</sup> )

PRECEDENCE OF HAZARD TABLE—Continued  
[Hazard class or division and packing group]

	4.2	4.3	5.1 I <sup>1</sup>	5.1 II <sup>1</sup>	5.1 III <sup>1</sup>	6.1, I dermal	6.1, I oral	6.1 II	6.1 III	8, I liquid	8, I solid	8, II liquid	8, II solid	8, III liquid	8, III solid
3 II <sup>2</sup> .....	.....	4.3	.....	.....	.....	3	3	3	3	8	( <sup>3</sup> )	8	( <sup>3</sup> )	3	( <sup>3</sup> )
3 III <sup>2</sup> .....	.....	4.3	.....	.....	.....	6.1	6.1	6.1	4.3	8	( <sup>3</sup> )	8	( <sup>3</sup> )	3	( <sup>3</sup> )

\* Materials of Division 4.1 other than self-reactive substances and solid desensitized explosives, and materials of Class 3 other than liquid desensitized explosives.  
<sup>2</sup> Denotes an impossible combination.  
<sup>3</sup> For pesticides only, where a material has the hazards of Class 3, Packing Group III, and Division 6.1, Packing Group III, the primary hazard is Division 6.1, Packing Group III.

\* \* \* \* \*

22. In § 173.21, paragraph (f)(3)(ii) would be revised to read as follows:

**§ 173.21 Forbidden materials and packages.**  
 \* \* \* \* \*

(f) \* \* \*  
 (3) \* \* \*

(ii) For transportation by vessel, shipments are authorized in accordance with the control temperature requirements in Chapter 7.7 of the IMDG Code (incorporated by reference; see § 171.7 of this subchapter).

23. In § 173.22, paragraph (a)(4) would be revised to read as follows:

**§ 173.22 Shipper's responsibility.**  
 (a) \* \* \*  
 (4) For a DOT Specification or UN standard packaging subject to the requirements of part 178 of this subchapter, a person must perform all functions necessary to bring the package into compliance with parts 173 and 178 of this subchapter, as identified by the packaging manufacturer or subsequent distributor (for example, applying closures consistent with the manufacturer's closure instructions) in accordance with § 178.2 of this subchapter.

24. In § 173.24, paragraph (b)(4) would be added and paragraph (f)(1) introductory text would be revised to read as follows:

**§ 173.24 General requirements for packagings and packages.**  
 \* \* \* \* \*

(b) \* \* \*  
 (4) The packagings are strong enough to withstand the shocks and loadings encountered during transportation, including removal from a pallet, unit load device or overpack for subsequent manual or mechanical handlings. Packagings must be constructed and closed in a manner that prevents any loss of contents that may be caused under normal conditions of transportation, by vibration, or by changes in temperature, humidity or

pressure, including pressure changes resulting from altitude. Packagings, including inner packagings and receptacles, must be closed in accordance with the information provided by the manufacturer (see § 178.2 of this subchapter). No hazardous material residue may adhere to the outside of the package during transport (see §§ 173.24 and 173.24a).

(f) \* \* \* (1) The closures of packagings must be constructed to resist the effects of temperature, pressure changes and vibration that occur during normal conditions of transportation. Screw-type closures on packagings must be secured to prevent the closures from loosening due to vibration or substantial change in temperature. For air transport, stoppers, corks or other such friction type closures must be held securely, tightly and effectively in place by positive means. This may be accomplished by the use of adhesive tape, friction sleeves, welding or soldering, or positive locking wires, or other equally effective methods. The closure device must be so designed that it is unlikely it can be incorrectly or incompletely closed. The requirements of this paragraph apply to new, reused, reconditioned or remanufactured packagings. Closures must be designed and closed so that under conditions normally incident to transportation—

25. In 173.25, paragraph (a)(2) would be revised to read as follows:

**§ 173.25 Authorized packagings and overpacks.**  
 (a) \* \* \*  
 (2) The overpack is marked with the proper shipping name and identification number, the air eligibility marking, when applicable, and labeled as required by this subchapter for each hazardous material contained therein, unless markings and labels representative of each hazardous material in the overpack are visible.

26. In § 173.27, paragraph (e) would be revised, and a new paragraph (i) would be added to read as follows:

**§ 173.27 General requirements for transportation by aircraft.**  
 \* \* \* \* \*

(e) Absorbent materials. Except as otherwise provided in this subchapter, liquid hazardous materials, other than Class 9, that are packaged and offered for transport in glass, earthenware, plastic or metal inner packagings must be packaged using absorbent material as follows:

(1) Packing Group I liquids on passenger aircraft must be packaged using materials capable of absorbing the entire contents of the inner packagings.

(2) Packing Group I liquids on cargo aircraft, and Packing Group II liquids including Division 5.2 liquids on passenger and cargo aircraft, must be packaged using a sufficient quantity of absorbent material to absorb the entire contents of any one of the inner packagings containing such liquids. When the inner packagings are of different sizes and quantities, sufficient absorbent material must be used to absorb the entire contents of the inner packaging with the greatest volume of liquid.

(3) When absorbent materials are required and the outer packaging is not liquid tight, a means of containing the liquid in the event of a leakage must be provided in the form of a leakproof liner, plastic bag or other equally efficient means of containment.

(4) Absorbent material must not react dangerously with the liquid (see §§ 173.24 and 173.24a.).

(5) Absorbent material is not required if the inner packagings are so protected that breakage of them and leakage of their contents from the outer packaging is not likely to occur under normal conditions of transportation.

(i) Air eligibility marking. Each person who offers for transportation a hazardous material by aircraft must mark the packagings containing the hazardous materials with an air

eligibility mark as specified in § 172.323 of this subchapter.

27. In § 173.62, the following changes would be made:

a. In paragraph (b), in the Explosives Table, a new entry would be added in appropriate numerical order; and

b. In paragraph (c), in the Explosives Packing Instructions Table, in the first column, for the packing instruction entry 112(b), in the last sentence, the wording "3. For UN 0222 and UN 0223" would be removed and "3. For UN 0222" would be added in its place.

The new entry to be added to the paragraph (b) Explosives Table would read as follows:

§ 173.62 Specific packaging requirements for explosives.

\* \* \* \* \*
(b) \* \* \*

EXPLOSIVES TABLE

Table with 2 columns: ID#, PI. Row 1: UN0503, 135

\* \* \* \* \*

28. In § 173.115, paragraphs (d) and (e) would be revised to read as follows:

§ 173.115 Class 2, Divisions 2.1, 2.2, and 2.3—Definitions.

\* \* \* \* \*

(d) Non-liquefied compressed gas. A gas, which when packaged under pressure for transportation is entirely gaseous at -50 °C (-58 °F) with a critical temperature less than or equal to -50 °C (-58 °F), is considered to be a non-liquefied compressed gas.

(e) Liquefied compressed gas. A gas, which when packaged under pressure for transportation is partially liquid at temperatures above -50 °C (-58 °F), is considered to be a liquefied compressed gas. A liquefied compressed gas is further categorized as follows:

(1) High pressure liquefied gas which is a gas with a critical temperature between -50 °C (-58 °F) and +65 °C (149 °F), and

(2) Low pressure liquefied gas which is a gas with a critical temperature above +65 °C (149 °F).

\* \* \* \* \*

29. In § 173.152, paragraphs (b)(2) and (b)(4)(ii) would be revised to read as follows:

§ 173.152 Exceptions for Division 5.1 (oxidizers) and Division 5.2 (organic peroxides).

\* \* \* \* \*

(b) \* \* \*

(2) For oxidizers in Packing Group III, inner packagings not over 5 L (1.3 gallons) net capacity each for liquids or not over 5.0 kg (11 pounds) net capacity each for solids, and packed in strong outer packagings.

\* \* \* \* \*

(4) \* \* \*

(ii) The flammable liquid component must be packed in inner packagings not over 5 L (1.3 gallons) net capacity each for Packing Group II or III liquid; and

\* \* \* \* \*

30. In § 173.153, in paragraph (b) introductory text, a new first sentence would be added, and paragraph (b)(1) would be revised to read as follows:

§ 173.153 Exceptions for Division 6.1 (poisonous materials).

\* \* \* \* \*

(b) Limited quantities of Division 6.1 materials. The exceptions in this paragraph do not apply to poison-by-inhalation materials. \* \* \*

(1) For poisonous liquids in Packing Group III, inner packagings not over 5 L (1.3 gallons) net capacity each, packed in strong outer packagings; and

\* \* \* \* \*

31. In § 173.154, paragraph (b)(2) would be revised to read as follows:

§ 173.154 Exceptions for Class 8 (corrosive materials).

\* \* \* \* \*

(b) \* \* \*

(2) For corrosive materials in Packing Group III, in inner packagings not over 5.0 L (1.3 gallons) net capacity each for liquids, or not over 5.0 kg (11 pounds) net capacity each for solids, and packed in strong outer packagings.

\* \* \* \* \*

32. In § 173.159, in paragraph (a), a second sentence would be added, and a new paragraph (d)(4) would be added to read as follows:

§ 173.159 Batteries, wet.

(a) \* \* \* For transportation by aircraft, the packaging for wet cell batteries must incorporate an acid-or alkali-proof liner, or include a supplementary packaging with sufficient strength and adequately sealed to prevent leakage of electrolyte fluid in the event of spillage.

\* \* \* \* \*

(d) \* \* \*

(4) At a temperature of 55 °C (131 °F), the battery must not contain any unabsorbed free-flowing liquid, and must be designed so that electrolyte will not flow from a ruptured or cracked case.

\* \* \* \* \*

33. Section 173.161 would be revised to read as follows:

§ 173.161 Chemical kits and first aid kits.

(a) Chemical kits and First aid kits must conform to the following requirements:

(1) The kits may only contain hazardous materials for which packaging exceptions are provided in the § 172.101 table of this subchapter.

(2) The kits must be packed in a strong outer packaging conforming to the packaging requirements of subpart B of this subchapter.

(3) The kits must include sufficient absorbent material to completely absorb the contents of any liquid hazardous materials contained in the kits. The contents must be separated, placed, or packed, and closed with cushioning material to protect them from damage.

(4) The contents of the kits must be packed so there will be no possibility of the mixture of contents causing dangerous evolution of heat or gas.

(5) The packing group assigned to the kits as a whole must be the most stringent packing group assigned to any individual substance contained in the kits.

(6) Inner receptacles containing hazardous materials within the kits must not contain more than 250 ml for liquids or 250 g for solids per receptacle.

(7) The total quantity of hazardous materials in any one outer package must not exceed either 10 L or 10 kg.

(b) Except when offered for transportation or transported by air, Chemical kits and First aid kits are excepted from the labeling requirements and the specification packaging requirements of this subchapter. In addition, chemical kits and first aid kits are not subject to subpart F of part 172 of this subchapter (Placarding), part 174 (Carriage by rail) of this subchapter except § 174.24 (Shipping papers), and part 177 (Carriage by highway) of this subchapter except § 177.817 (Shipping papers). Kits that meet the definition for a consumer commodity in § 171.8 of this subchapter may be transported in accordance with the exceptions for ORM materials in § 173.156.

34. In § 173.166, paragraphs (b), (c), (d)(2), (e) introductory text and (f) would be revised; paragraph (d)(3) would be redesignated as paragraph (d)(4); and new paragraphs (d)(3), (d)(5), and (e)(5) would be added to read as follows:

§ 173.166 Air bag inflators, air bag modules and seat-belt pretensioners.

\* \* \* \* \*

(b) Classification. For an air bag inflator, air bag module or seat-belt

pretensioner that meets the criteria of Class 1 (explosive), see § 173.62. An air bag inflator, air bag module, or seat-belt pretensioner may be classed as Class 9 (UN3268) if:

(1) The manufacturer has submitted each design type air bag inflator, air bag module, or seat-belt pretensioner to a person approved by the Associate Administrator, in accordance with § 173.56(b), for examination and testing. The submission must contain a detailed description of the inflator or pretensioner or, if more than a single inflator or pretensioner is involved, the maximum parameters of each particular inflator or pretensioner design type for which approval is sought and details on the complete package. The manufacturer must submit an application, including the test results and report recommending the shipping description and classification for each device or design type to the Associate Administrator, and must be notified in writing by the Associate Administrator that the device has been approved for transportation; or,

(2) The manufacturer has submitted an application, including an approved classification issued by the competent authority of a foreign government to the Associate Administrator, and been notified in writing by the Associate Administrator that the device has been approved for transportation and assigned an EX number.

(c) *EX numbers.* When offered for transportation, the shipping paper must contain the EX number or product code for each approved inflator or pretensioner in association with the basic description required by § 172.202(a) of this subchapter. Product codes must be traceable to the specific EX number assigned to the inflator, module or pretensioner by the Associate Administrator. The EX number or product code is not required to be marked on the outside package.

(d) \* \* \*

(2) An air bag module containing an inflator that has been previously approved for transportation is not required to be submitted for further examination or approval.

(3) An air bag module containing an inflator that has previously been approved as a Division 2.2 material is not required to be submitted for further examination to be reclassified as a Class 9 material.

(4) *Shipments for recycling.* When offered for domestic transportation by highway, rail freight, cargo vessel or cargo aircraft, a serviceable air bag module or seat-belt pretensioner removed from a motor vehicle that was manufactured as required for use in the

United States may be offered for transportation and transported without compliance with the shipping paper requirement prescribed in paragraph (c) of this section. However, the word "Recycled" must be entered on the shipping paper immediately after the basic description prescribed in § 172.202 of this subchapter. No more than one device is authorized in the packaging prescribed in paragraph (e)(1), (2) or (3) of this section. The device must be cushioned and secured within the package to prevent movement during transportation.

(5) Until October 1, 2005, approved "Air bag inflators, compressed gas, or Air bag modules, compressed gas or Seat-belt pretensioners, compressed gas," UN3353, packaged in a nonspecification packaging before October 1, 2003, may be transported or offered for domestic transportation when described, marked, and labeled as a Division 2.2 material in accordance with the HMR in effect on September 30, 2002.

(e) *Packagings.* Rigid, outer packagings, meeting the requirements of Part 178 of this subchapter at the Packing Group III performance level are authorized. The packagings must be designed and constructed to prevent movement of the articles and inadvertent operation.

\* \* \* \* \*

(5) Packagings specified in the approval document issued by the Associate Administrator in accordance with paragraph (e) of this section are also authorized.

(f) *Labeling.* Notwithstanding the provisions of § 172.402 of this subchapter, each package or handling device must display a CLASS 9 label. Additional labeling is not required when the package contains no hazardous materials other than the devices.

35. In § 173.185, paragraph (e)(4) would be revised, paragraph (e)(5) would be removed and reserved, paragraph (e)(7) would be revised, and a new paragraph (k) would be added to read as follows:

**§ 173.185 Lithium batteries and cells.**

\* \* \* \* \*

(e) \* \* \*

(4) Authorized outer packagings: rigid outer packagings that conform to the requirements of part 178 of this subchapter at the Packing Group II performance level. Cells and batteries must be packed in such a manner as to effectively prevent short circuits through the use of inner packagings, dividers, or other suitable means.

(5) [Reserved]

\* \* \* \* \*

(7) Except as provided in paragraph (h) of this section, cells and batteries with a liquid cathode containing sulfur dioxide, sulfuryl chloride or thionyl chloride may not be offered for transportation or transported if any cell has been discharged to the extent that the open circuit voltage is less than two volts, or is less than two-thirds of the voltage of the fully charged cell, whichever is less.

\* \* \* \* \*

(k) Batteries employing a strong, impact-resistant outer casing and exceeding a gross mass of 12 kg (26.5 lbs.), and assemblies of such batteries, may be packed in strong outer packagings, in protective enclosures (for example, in fully enclosed wooden slatted crates) or on pallets. Batteries must be secured to prevent inadvertent movement, and the terminals may not support the weight of other superimposed elements. Prior to its being offered for transportation aboard cargo aircraft, the packaging must be approved by the Associate Administrator.

**§ 173.216 [Amended]**

36. In § 173.216, paragraph (b) would be removed and reserved.

37. In § 173.218, paragraph (a) introductory text would be revised and paragraph (b) would be removed and reserved to read as follows:

**§ 173.218 Fish meal or fish scrap.**

(a) Except as provided in Column (7) of the HMT in § 172.101 of this subchapter, fish meal or fish scrap, containing at least 6%, but not more than 12% water, is authorized for transportation by vessel only when packaged as follows:

\* \* \* \* \*

(b) [Reserved]

\* \* \* \* \*

38. In § 173.220, paragraph (e) would be redesignated as paragraph (f) and a new paragraph (e) would be added to read as follows:

**§ 173.220 Internal combustion engines, self-propelled vehicles, mechanical equipment containing internal combustion engines, and battery powered vehicles or equipment.**

\* \* \* \* \*

(e) *Additional requirements for internal combustion engines and vehicles with certain electronic equipment when transported by aircraft or vessel.* When internal combustion engines are shipped separately by aircraft or vessel, all fuel, coolant or hydraulic systems remaining in the

engine must be drained as far as practicable, and all disconnected fluid pipes must be sealed with leak-proof caps that are positively retained. Vehicles equipped with theft-protection devices, installed radio communications equipment or navigational systems must have such devices, equipment or systems disabled.

\* \* \* \* \*

39. A new § 173.223 would be added to read as follows:

**§ 173.223 Musk xylene.**

(a) Packagings for “Musk xylene” or “5-tert-Butyl-2,4,6-trinitro-m-xylene,” when offered for transportation or transported by rail, highway, or vessel, must conform to the general packaging

requirements of Subpart B of Part 173, and to the requirements of Part 178 of this subchapter at the Packing Group III performance level and may only be transported in the following packagings:

(1) Fiberboard box (4G) with a single inner plastic bag, and a maximum net mass of not more than 50 kg (110 lbs).

(2) Fiberboard box (4G) or fiber drum (1G), with a plastic inner packaging not exceeding 5 kg (11 lbs), and a maximum net mass of not more than 25 kg (55 lbs).

(3) Fiber drum (1G), and a maximum net mass of not more than 50 kg (110 lbs), that may be fitted with a coating or lining.

(b) [Reserved]

40. In § 173.224, in paragraph (b)(4), the fourth sentence would be revised; in the table following paragraph (b)(7), 5

entries would be removed, 9 entries would be added, and 1 entry would be revised in appropriate alphabetical order; and in the “NOTES” immediately following the Table, a new Note “4” would be added in appropriate numerical order to read as follows:

**§ 173.224 Packaging and control and emergency temperatures for self-reactive materials.**

\* \* \* \* \*

(b) \* \* \*

(4) \* \* \* Bulk packagings are authorized as specified in § 173.225(e) for Type F self-reactive substances.

\* \* \*

\* \* \* \* \*

(7) \* \* \*

SELF-REACTIVE MATERIALS TABLE

Self-reactive substance (1)	Identification No. (2)	Concentration (%) (3)	Packing method (4)	Control temperature(°C) (5)	Emergency temperature (6)	Notes (7)
[REMOVE:]						
Benzene-1,3-disulphohydrazide, as a paste.	3226	52	OP7			
Benzene sulphohydrazide	3226	100	OP7			
* * *						
2-Diazo-1-Naphthol-4-sulphochloride	3222	100	OP5			
2-Diazo-1-Naphthol-5-sulphochloride	3222	100	OP5			
Diphenyloxide-4,4'-disulphohydrazide	3226	100	OP7			
[ADD:]						
* * *						
Benzene-1,3-disulphonylhydrazide, as a paste.	3226	52	OP7			
Benzene sulphohydrazide	3226	100	OP7			
* * *						
2-Diazo-1-Naphthol sulphonic acid ester mixture.	3226	<100	OP7			4
2-Diazo-1-Naphthol-4-sulphonyl chloride	3222	100	OP5			
2-Diazo-1-Naphthol-5-sulphonyl chloride	3222	100	OP5			
2,5-Dibutoxy-4-(4-morpholinyl)-Benzene-diazonium, tetrachlorozincate (2:1).	3228	100	OP8			
* * *						
2,5-Diethoxy-4-(4-morpholinyl)-benzene-diazonium sulphate.	3226	100	OP7			
* * *						
4-(Dimethylamino)-benzenediazonium trichlorozincate (-1).	3228	100	OP8			
Diphenyloxide-4,4'-disulphonylhydrazide	3226	100	OP7			
* * *						
[REVISE:]						
2,2'-Azodi(isobutyronitrile) as a water based paste.	3224	≤50	OP6			

\* \* \* \* \*

**Notes:**

\* \* \* \* \*

4. This entry applies to mixtures of esters of 2-diazo-1-naphthol-4-sulphonic

acid and 2-diazo-1-naphthol-5-sulphonic acid.

41. In § 173.225, paragraph (b)(6) would be revised; in the Organic Peroxide Table, 1 entry would be removed, 9 entries would be added, and 21 entries would be revised in appropriate alphabetical order; in the "Notes" immediately following the Table, Note "9" would be revised, and two new notes, "28" and "29" would be added in appropriate numerical order; in paragraph (e)(3)(xii), the last sentence would be revised; and paragraph (e)(5) would be revised to read as follows:

**§ 173.225 Packaging requirements and other provisions for organic peroxides.**

\* \* \* \* \*

(b) \* \* \*

(6) *Packing method.* Column 6 specifies the highest packing method (largest packaging capacity) authorized for the organic peroxide. Lower numbered packing methods (smaller packaging capacities) are also authorized. For example, if OP3 is specified, then OP2 and OP1 are also authorized. The designation "IBC" means Special Provision IB52 in § 172.102 of this subchapter applies.

The designation "Bulk" means paragraph (e) of this section applies. When an IBC or bulk packaging is authorized and meets the requirements of paragraph (e) of this section, lower control temperatures than those specified for non-bulk packagings may be required. The Table of Packing Methods in paragraph (d) of this section defines the non-bulk packing methods.

\* \* \* \* \*

(8) \* \* \*

ORGANIC PEROXIDE TABLE

Technical name	ID No.	Concentration (mass %)	Diluent (mass %)			Water (mass %)	Packing method	Temperature (°C)		Notes
			A	B				Control	Emergency	
			(4a)	(4b)	(4c)					
[REMOVE:] Peracetic acid with not more than 20% hydrogen peroxide.	*	*	*	*	*	*	*	*		
[ADD:]										
tert-Butyl peroxyneodecanoate [as a stable dispersion in water].	UN3119	≤42	.....	.....	.....	.....	OP8, IBC	-5	+5	
Di-tert-butyl peroxide .....	UN3109	≤32	≥68	.....	.....	.....	Bulk .....	.....	.....	14
Diisopropyl peroxydicarbonate .....	UN3115	≤28	≥72	.....	.....	.....	OP7 .....	-15	-5	
Di-n-Propyl peroxydicarbonate .....	UN3113	≤100	.....	.....	.....	.....	OP3 .....	-25	-15	
Di-(3,5,5-trimethylhexanoyl) peroxide .....	UN3119	≤38	≥62	.....	.....	.....	Bulk .....	-5	+5	14
Peroxyacetic acid with not more than 20% hydrogen peroxide.	Exempt	≤6	.....	.....	.....	≥60	Exempt ....	.....	.....	28
Peroxyacetic acid with not more than 26% hydrogen peroxide.	UN3109	≤17	.....	.....	.....	.....	OP8, IBC	.....	.....	13, 20, 28
Peroxyacetic acid with 7% hydrogen peroxide.	UN3107	≤36	.....	.....	.....	.....	OP8 .....	.....	.....	13, 20, 28
Peroxyacetic acid, distilled, Type F, stabilized.	UN3119	≤41	.....	.....	.....	.....	Bulk .....	+30	+35	14, 27, 28
[REVISE:]										
tert-Butyl hydroperoxide .....	UN3109	≤72	.....	.....	.....	.....	≥28 OP8, IBC, Bulk.	.....	.....	13, 4
tert-Butyl peroxyacetate .....	UN3109	≤32	≥68	.....	.....	.....	OP8, IBC.	.....	.....	
tert-Butyl peroxyacetate .....	UN3109	≤32	.....	≥68	.....	.....	OP8.	.....	.....	

tert-Butyl peroxyneodecanoate [as a stable dispersion in water].	UN3117	≤52				OP8, IBC	0	+10	
tert-Butyl peroxyneodecanoate .....	UN3119	≤32	≥68			OP8, IBC	0	+10	
tert-Butyl peroxy-3,5,5-trimethylhexanoate	UN3109	≤32	≥68			OP8, IBC.			
Cumyl hydroperoxide .....	UN3109	≤90	≥10			OP8, IBC, Bulk.			13, 14, 15
Dibenzoyl peroxide [as a stable dispersion in water].	UN3109	≤42				OP8, IBC.			
Di-(4-tert-butylcyclohexyl)peroxydicarbonate [as a stable dispersion in water].	UN3119	≤42				OP8, IBC	+30	+35	
Di-tert-butyl peroxide .....	UN3109	≤52		≥48		OP8, IBC, Bulk.			14, 24
1,1-Di-(tert-butylperoxy)cyclo-hexane .....	UN3109	≤42	≥58			OP8, IBC.			
Dicetyl peroxydicarbonate [as a stable dispersion in water].	UN3119	≤42				OP8, IBC	+30	+35	
Dicumyl peroxide .....	UN3109	>52-100		≤48		OP8, IBC, Bulk.			9, 11, 14
Dicumyl peroxide .....	UN3110	>52-100			≤48	OP8, IBC, Bulk.			9, 11, 14
Dilauroyl peroxide [as a stable dispersion in water].	UN3109	≤42				OP8, IBC.			
Di-(3,5,5-trimethylhexanoyl)peroxide [as a stable dispersion in water].	UN3119	≤52				OP8, IBC	+10	+15	
Isopropylcumyl hydroperoxide .....	UN3109	≤72	≥28			OP8, IBC, Bulk.			13, 14
p-Menthyl hydroperoxide .....	UN3109	≤72	≥28			OP8, IBC, Bulk.			14
Peroxyacetic acid, type F, stabilized .....	UN3109	≤43				OP8, IBC			13, 20, 28

ORGANIC PEROXIDE TABLE—Continued

Technical name	ID No.	Concentration (mass %)	Diluent (mass %)			Water (mass %)	Packing method	Temperature (°C)		Notes
			A	B				Control	Emergency	
			(4a)	(4b)	(4c)					
Pinanyl hydroperoxide .....	UN3109	≤56	≥44	.....	.....	OP8, Bulk	.....	.....	14	
1,1,3,3-Tetramethylbutyl peroxyneodecanoate [as a stable dispersion in water].	UN3119	≤52	.....	.....	.....	OP8, IBC	-5	+5		
			*	*	*	*	*	*		

**Notes:**

\* \* \* \* \*

9. For domestic shipments, this material may be packaged in bulk packagings under the provisions of paragraph (e)(3)(xii) of this section.

\* \* \* \* \*

27. Formulations derived from distillation of peroxyacetic acid originating from peroxyacetic acid in a concentration of not more than 41% with water, total active oxygen less than or equal to 9.5% (peroxyacetic acid plus hydrogen peroxide).

28. For the purposes of this section, the names "Peroxyacetic acid" and "Peracetic acid" are synonymous.

\* \* \* \* \*

(e) \* \* \*

(3) \* \* \*

(xii) \* \* \* These portable tanks are not subject to any other requirements of paragraph (e) of this section.

\* \* \* \* \*

(5) *IBCs*. IBCs are authorized subject to the conditions and limitations of this section if the IBC type is authorized according to Special Provision IB52 (see § 172.102(c)(4) of this subchapter), as applicable, and the IBC conforms to the requirements in subpart O of part 178 of this subchapter at the Packing Group II performance level. The additional requirements in paragraphs (e)(5)(i) and (e)(5)(ii) of this section also apply. Type F organic peroxides or self-reactive substances that are not authorized for a specific IBC may be transported in IBCs other than those specified in IB52 if approved by the Associate Administrator.

\* \* \* \* \*

42. In § 173.244, paragraph (c) would be revised to read as follows:

**§ 173.244 Bulk packaging for certain pyrophoric liquids (Division 4.2), dangerous when wet (Division 4.3) materials, and poisonous liquids with inhalation hazards (Division 6.1).**

\* \* \* \* \*

(c) *Portable tanks*: DOT 51 portable tanks, and UN portable tanks that meet the requirements of this subchapter when a T code is specified in Column (7) of the § 172.101 Table of this subchapter for the specific hazardous material are authorized.

43. In § 173.306, the paragraph (f) heading would be revised and a new paragraph (j) would be added to read as follows:

**§ 173.306 Limited quantities of compressed gases.**

\* \* \* \* \*

(f) *Accumulators (Articles, pressurized pneumatic or hydraulic containing non-flammable gas).* \* \* \*

(j) For certain compressed gases not subject to the requirements of this subchapter, see § 173.307(a)(5).

44. In § 173.307, a new paragraph (a)(5) would be added to read as follows:

**§ 173.307 Exceptions for compressed gases.**

(a) \* \* \*

(5) *Aerosols with a capacity of less than 50 ml*. Aerosols, as defined in § 171.8 of this subchapter, with a capacity not exceeding 50 ml and with a pressure not exceeding 970 kPa (141 psig) at 55 °C (131 °F), containing no hazardous materials other than a Division 2.2 gas, are not subject to the requirements of this subchapter.

\* \* \* \* \*

45. In § 173.422, paragraphs (a)(2), (a)(3), and (a)(4) would be revised to read as follows:

**§ 173.422 Additional requirements for exempted packages containing Class 7 (radioactive materials).**

(a) \* \* \*

(2) "This package conforms to the conditions and limitations specified in 49 CFR 173.424 for radioactive material, excepted package—instruments or articles, UN 2911";

(3) "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 depleted uranium or natural thorium, UN 2909"; or

(4) "This package conforms to the conditions and limitations specified in 49 CFR 173.428 for radioactive material, excepted package—empty packaging, UN 2908."

\* \* \* \* \*

**PART 175—CARRIAGE BY AIRCRAFT**

46. The authority citation for part 175 would continue to read as follows:

**Authority:** 49 U.S.C. 5101–5127; 49 CFR 1.53.

47. In § 175.10, paragraph (a)(25) would be revised and a new paragraph (c) would be added to read as follows:

**§ 175.10 Exceptions.**

(a) \* \* \*

(25) With approval of the aircraft operator, a passenger or crew member may carry in checked or carry-on baggage no more than two small gas cartridges of carbon dioxide or another non-flammable, non-toxic inert gas in Division 2.2 that are fitted into a self-

inflating life-jacket for inflation purposes, plus no more than twospare cartridges.

\* \* \* \* \*

(c) The exceptions provided in paragraph (a) of this section also apply to aircraft operators when transporting passenger or crew member baggage that has been inadvertently separated from or improperly routed to its intended final destination.

48. In § 175.30, a new paragraph (a)(5) would be added to read as follows:

**§ 175.30 Accepting and inspecting shipments.**

\* \* \* \* \*

(a) \* \* \*

(5) Marked with the air eligibility marking in accordance with § 172.323 of this subchapter.

\* \* \* \* \*

49. In § 175.90, paragraphs (b) and (c) would be revised to read as follows:

**§ 175.90 Damaged shipments.**

\* \* \* \* \*

(b) Except as provided in § 175.700, the operator of an aircraft must remove from the aircraft any package, baggage or cargo that appears to be leaking or contaminated by a hazardous material. In the case of a package, baggage or cargo that appears to be leaking, the operator must ensure that other packages, baggage or cargo in the same shipment are in proper condition for transport aboard the aircraft and that no other package, baggage or cargo has been contaminated or is leaking. If an operator becomes aware that a package, baggage or cargo not identified as containing a hazardous material has been contaminated, the operator has cause to believe that a hazardous material may be the cause of the contamination, the operator must take reasonable steps to identify the nature and source of contamination before proceeding with the loading of the contaminated baggage or cargo. If the contaminating substance is found or suspected to be a hazardous material, the operator must isolate the package, baggage or cargo and take appropriate steps to eliminate any identified hazard before continuing the transportation of the item by air.

(c) No person may place aboard an aircraft, a package, baggage or cargo that is contaminated with a hazardous material or appears to be leaking.

\* \* \* \* \*

**PART 176—CARRIAGE BY VESSEL**

50. The authority citation for part 176 would continue to read as follows:

Authority: 49 U.S.C. 5101–5127; 49 CFR 1.53.

51. In § 176.27, paragraph (c)(2) would be revised to read as follows:

§ 176.27 Certificate.

\* \* \* \* \*

(c) \* \* \*

(2) The certification may appear on a shipping paper or on a separate document as a statement, such as “It is declared that the packing of the container has been carried out in accordance with the applicable provisions [of 49 CFR], [of the IMDG Code], or [of 49 CFR and the IMDG Code].”.

52. In § 176.63, a new paragraph (f) would be added to read as follows:

§ 176.63 Stowage locations.

\* \* \* \* \*

(f) Stowage of containers on board hatchless container ships (1) Containers

holding a hazardous material may be stowed in or vertically above a hatchless container hold if the following conditions are met:

(1) All hazardous materials are permitted for *under deck* stowage as specified in the Table in § 172.101 of this subchapter; and

(2) The hatchless container hold is in full compliance with the provisions of IMO’s “International Convention for the Safety of Life at Sea (SOLAS),” Regulation II–2/19 of SOLAS 1974, as amended (incorporation by reference; see § 171.7 of this subchapter), applicable to enclosed container cargo spaces, as appropriate for the cargo transported.

53. In § 176.83, a new paragraph (l) would be added to read as follows:

§ 176.83 Segregation.

\* \* \* \* \*

(l) Segregation of containers on board hatchless container ships (1) This paragraph applies to the segregation of containers that are transported on board hatchless container ships provided that the cargo spaces are properly fitted to give permanent stowage of the cargo transport units during transport.

(2) For partly hatchless container ships that have spaces suitable for breakbulk cargo, conventional container stowage, or any other method of stowage, the appropriate requirements of this section apply to the relevant cargo space.

(3) Segregation Table: Table § 176.83(l)(3) sets forth the general requirements for segregation of containers on board hatchless container vessels.

(4) In Table § 176.83(l)(3), a container space means a distance of not less than 6 m (20 feet) fore and aft or not less than 2.5 m (8 feet) athwartship.

TABLE § 176.83(L)(3)—SEGREGATION OF CONTAINERS ON BOARD HATCHLESS CONTAINER SHIPS

Segregation requirement	Vertical				Horizontal					
	Closed versus closed	Closed versus open	Open versus open		Closed versus closed		Closed Versus Open		Open Versus Open	
					On deck	Under deck	On deck	Under deck	On deck	Under deck
1. "Away from" .....	One on top of the other permitted.	Open on top of closed permitted. Otherwise as for open versus open.	.....	Fore and aft. Athwartships.	No restriction. No restriction.	No restriction. No restriction.	No restriction. No restriction.	No restriction. No restriction.	One container space. One container space.	One container space or one bulkhead. One container space
2. "Separated from" .....	Not in the same vertical line.	As for open versus open.	Not in the same vertical line.	Fore and aft. Athwartships.	One container space. One container space.	One container space or one bulkhead. One container space.	One container space. Two container spaces.	One container space or one bulkhead. Two container spaces.	One container space and not above same hold. Two container spaces and not above same hold.	One bulkhead. One bulkhead
3. "Separated by a complete compartment or hold from".	.....	.....	.....	Fore and aft. Athwartships.	One container space and not above same hold. Two container spaces and not above same hold.	One bulkhead. One bulkhead.	One container space and not in or above same hold. Two container spaces and not above same hold.	One bulkhead. One bulkhead.	Two container spaces and not above same hold. Three container spaces and not above same hold.	Two bulkheads. Two bulkheads
4. "Separated longitudinally by an intervening complete compartment or hold from".		Prohibited		Fore and aft. Athwartships.	Minimum horizontal distance of 24 M and not above same hold. Prohibited	One bulkhead and minimum horizontal distance of 24 M*. Prohibited	Minimum horizontal distance of 24 M and not above same hold. Prohibited	Two bulkheads. Prohibited	Minimum horizontal distance of 24 M and not above same hold. Prohibited	Two bulkheads. Prohibited

\*Containers not less than 6 m (20 feet) from intervening bulkhead.  
 NOTE: All bulkheads and decks must be resistant to fire and liquid.

54. In § 176.84, in paragraph (b), Table of provisions, nine new entries would be added in appropriate numerical order to read as follows:

§ 176.84 Other requirements for stowage and segregation for cargo vessels and passenger vessels.

Table with 5 columns: Code, Provisions, and four asterisks. Rows 124-132 describe stowage and segregation requirements for various hazardous materials.

55. In § 176.140, in paragraph (b), the first sentence would be revised to read as follows:

§ 176.140 Segregation from other classes of hazardous materials.

(b) Class 1 (explosive) materials must be segregated from bulk solid dangerous cargoes in accordance with the IMDG Code (incorporated by reference; see § 171.7 of this subchapter).

§ 176.170 [Removed and Reserved]

56. In § 176.170, paragraph (b) would be removed and reserved.

57. In § 176.410, paragraph (a)(2) would be revised; paragraphs (a)(3), (a)(5) and (a)(6) would be removed; and current paragraph (a)(4) would be redesignated (a)(3) to read as follows:

§ 176.410 Division 1.5 materials, ammonium nitrate and ammonium nitrate mixtures.

- (a) \* \* \*
(2) Ammonium nitrate, Division 5.1 (oxidizer), UN1942.
(3) Ammonium nitrate fertilizer, Division 5.1 (oxidizer), UN2067.

58. In § 176.415, paragraphs (a) introductory text, (a)(1), (a)(2), (b)(1), (c)(1) and (c)(2) would be revised; paragraphs (b)(3), (b)(4) and (c)(5) would be removed; and paragraphs (b)(5) and (b)(6) would be redesignated (b)(3) and (b)(4), respectively to read as follows:

§ 176.415 Permit requirements for Division 1.5, ammonium nitrates, and certain ammonium nitrate fertilizers.

- (a) Except as provided in paragraph (b) of this section, before any of the following material is loaded on or unloaded from a vessel at any waterfront facility, the owner/operator must obtain written permission from the Captain of the Port (COTP).
(1) Ammonium nitrate UN1942, ammonium nitrate fertilizers containing more than 70% ammonium nitrate, or Division 1.5 compatibility group D materials packaged in a paper bag, burlap bag, or other nonrigid combustible packaging, or any rigid packaging with combustible inside packagings,
(2) Any other ammonium nitrate or ammonium nitrate fertilizer not listed in § 176.410(a) or (b).

(b) \* \* \*
(1) Ammonium nitrate, Division 5.1 (oxidizer) UN1942, in a rigid packaging with a noncombustible inside packaging.

(3) Division 1.5 compatibility group D material in a rigid packaging with a noncombustible inside packaging.

(4) Ammonium nitrate fertilizer, Class 9, UN2071.

(c) \* \* \*
(1) If the material is Explosives, blasting, type E, Division 1.5 compatibility group D, UN0332 in a combustible packaging or in a rigid packaging with a combustible inside packaging, it must be loaded or unloaded at a facility remote from populous areas, or high-value or high-hazard industrial facilities, so that in the event of fire or explosion, loss of lives and property may be minimized;

(2) If the material is a Division 1.5 compatibility group D material in a non-

rigid combustible packaging and loaded in a freight container or transport vehicle, it may be loaded or unloaded at a non-isolated facility if the facility is approved by the COTP.

\* \* \* \* \*

PART 178—SPECIFICATIONS FOR PACKAGINGS

59. The authority citation for part 178 would continue to read as follows:

Authority: 49 U.S.C. 5101–5127; 49 CFR 1.53.

60. In § 178.2, paragraph (c)(1)(ii) would be revised to read as follows:

§ 178.2 Applicability and responsibility.

\* \* \* \* \*

- (c) \* \* \*
(1) \* \* \*

(ii) With information specifying the type(s) and dimensions of the closures, including gaskets and any other components needed to ensure that the packaging is capable of successfully passing the applicable performance tests and the general packaging requirements in §§ 173.24 and 173.27 of this subchapter. This information must include any procedures to be followed, including closure instructions for inner packagings and receptacles, to effectively assemble and close the packaging for the purpose of preventing leakage in transportation. For transportation by aircraft, this information must include relevant guidance to ensure that the packaging, as prepared for transportation, will be capable of withstanding the pressure differential requirements in § 173.27 of this subchapter.

\* \* \* \* \*

§ 178.274 [Amended]

61. In § 178.274, in paragraph (j)(6), in the fourth sentence, the wording “20 cm (8 inches) on at least two sides” would be removed and “10 cm (4 inches) on at least two sides” would be added in its place.

62. In § 178.705, paragraph (c)(1)(iv)(A) would be revised to read as follows:

§ 178.705 Standards for metal IBCs.

- (c) \* \* \*
(1) \* \* \*
(iv) \* \* \*

(A) For a reference steel having a product of Rm × Ao = 10,000, where Ao is the minimum elongation (as a percentage) of the reference steel to be used on fracture under tensile stress (Rm × Ao = 10,000 × 145; if tensile strength is in U.S. Standard units of pounds per square inch), the wall thickness must not be less than:

Capacity (C) in liters <sup>1</sup>	Wall thickness (T) in mm			
	Types 11A, 11B, 11N		Types 21A, 21B, 21N, 31A, 31B, 31N	
	Unprotected	Protected	Unprotected	Protected
C≤1000 .....	2.0 .....	1.5 .....	2.5 .....	2.0
1000<C≤2000 .....	T=C/2000 + 1.5 .....	T=C/2000 + 1.0 .....	T=C/2000 + 2.0 .....	T=C/2000 + 1.5
2000<C≤3000 .....	T=C/2000 + 1.5 .....	T=C/2000 + 1.0 .....	T=C/1000 + 1.0 .....	T=C/2000 + 1.5

<sup>1</sup> Where: gallons=liters × 0.264.

\* \* \* \* \*

63. In § 178.812, paragraph (b)(1) would be revised to read as follows:

**§ 178.812 Top lift test.**

\* \* \* \* \*

(b) *Special preparation for the top lift test.* (1) Metal, rigid plastic, and composite IBC design types must be loaded to twice the maximum permissible gross mass with the load being distributed.

\* \* \* \* \*

**PART 180—CONTINUING QUALIFICATION AND MAINTENANCE OF PACKAGINGS**

64. The authority citation for part 180 would continue to read as follows:

**Authority:** 49 U.S.C. 5101–5127; 49 CFR 1.53.

65. Section 180.350 would be revised to read as follows:

**§ 180.350 Applicability and definitions.**

(a) This subpart prescribes requirements, in addition to those contained in parts 107, 171, 172, 173 and 178 of this subchapter, applicable to any person responsible for the continuing qualification, maintenance, or periodic retesting of an IBC. In addition, the following definitions apply:

(1) *Remanufactured IBCs* are metal, rigid plastic or composite IBCs produced as a UN type from a non-UN type, or are converted from one UN design type to another UN design type. Remanufactured IBCs are subject to the same requirements of this subchapter that apply to new IBCs of the same type (also see § 178.801(c)(1) of this subchapter for design type definition).

(2) *Repaired IBCs* are metal, rigid plastic or composite IBCs that, as a result of impact or for any other cause (such as corrosion, embrittlement or other evidence of reduced strength as compared to the design type), are restored so as to conform to the design type and to be able to withstand the design type tests. For the purposes of this subchapter, the replacement of the rigid inner receptacle of a composite IBC with a receptacle conforming to the original manufacturer's specification is

considered repair. Routine maintenance of IBCs (see definition in paragraph (a)(3) of this section) is not considered repair. The bodies of rigid plastic IBCs and the inner receptacles of composite IBCs are not repairable.

(3) *Routine maintenance of IBCs* is the routine performance on metal, rigid plastic or composite IBCs of operations such as:

- (i) Cleaning;
- (ii) Removal and reinstallation or replacement of body closures (including associated gaskets), or of service equipment conforming to the original manufacturer's specifications provided that the leaktightness of the IBC is verified; or
- (iii) Restoration of structural equipment not directly performing a hazardous material containment or discharge pressure retention function so as to conform to the design type (for example, the straightening of legs or lifting attachments), provided the containment function of the IBC is not affected.

66. In § 180.352, paragraphs (d)(1)(i) and (f) would be revised and a new paragraph (d)(1)(iv) would be added to read as follows:

**§ 180.352 Requirements for retest and inspection of IBCs.**

\* \* \* \* \*

- (d) \* \* \*
- (1) \* \* \*

(i) The repaired IBC conforms to the original design type, is capable of withstanding the applicable design qualification tests, and is retested and inspected in accordance with the applicable requirements of this section;

\* \* \* \* \*

(iv) The person performing the tests and inspections after the repair must durably mark the IBC near the manufacturer's UN design type marking to show the following:

- (A) The country in which the tests and inspections were performed;
- (B) The name or authorized symbol of the person performing the tests and inspections; and
- (C) The date (month, year) of the tests and inspections.

\* \* \* \* \*

(f) *Record retention.* The owner or lessee of the IBC must keep records of periodic retests, initial and periodic inspections, and tests performed on the IBC if it has been repaired.

67. In § 180.605, paragraph (k) would be revised to read as follows:

**§ 180.605 Requirements for periodic testing, inspection and repair of portable tanks.**

\* \* \* \* \*

(k) *Inspection and test markings.* (1) Each IM or UN portable tank must be durably and legibly marked, in English, with the date (month and year) of the last pressure test, the identification markings of the approval agency witnessing the test, when required, and the date of the last visual inspection. The marking must be placed on or near the metal identification plate, in letters and numerals of less than 3 mm (0.118 inches) high when on the metal identification plate, and 12 mm (0.47 inches) high when on the portable tank.

(2) Each Specification DOT 51, 56, 57 or 60 portable tank must be durably and legibly marked, in English, with the date (month and year) of the most recent periodic retest. The marking must be placed on or near the metal certification plate and must be in accordance with § 178.3 of this subchapter. The letters and numerals must not be less than 3 mm (0.118 inches) high when on the metal certification plate, and 12 mm (0.47 inches) high when on the portable tank, except that a portable tank manufactured under a previously authorized specification may continue to be marked with smaller markings if originally authorized under that specification (for example, DOT Specification 57 portable tanks).

\* \* \* \* \*

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**Robert A. McGuire,**  
Associate Administrator for Hazardous Materials Safety.

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