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PART VIII



DEPARTMENT OF TRANSPORTATION

**Materials Transportation
Bureau**

HAZARDOUS MATERIALS REGULATIONS

**Consolidation and Miscellaneous
Amendments**

Title 49—Transportation

CHAPTER I—MATERIALS TRANSPORTATION
BUREAU DEPARTMENT OF
TRANSPORTATION

[Docket No. HM-103/112; Amdt. Nos. 171-32B, 172-29B, 173-84B, 174-26B, 175-1B, 176-1B]

HAZARDOUS MATERIALS REGULATIONS
AND MISCELLANEOUS AMENDMENTS

Consolidation

On April 15, 1976, the Materials Transportation Bureau published a series of amendments identified as Docket HM-103/HM-112; Amdt. Nos. 171-32, 172-29, 173-94, 174-26, 175-1, 176-1, 177-35 (41 FR 15973). These amendments consolidated the air, water, and surface transportation hazardous materials regulations into one volume of the Code of Federal Regulations, 49 CFR Parts 100-189. In addition, basic changes were made to these regulations pertaining to shipping papers, package marking, package labeling, and transport vehicle placarding, requirements. Subsequent to that time, additional changes were made to these regulations and published in the FEDERAL REGISTER as amendments under Docket HM-103/112 (41 FR 40614, September 20, 1976). These latest amendments were published as a result of docketed comments, suggestions, and petitions for reconsideration. As a result of further comments and petitions, this document has been prepared to handle the editorial and clarification aspects of this consolidation, plus address petitions for reconsideration.

The American Trucking Associations, Inc. (ATA) submitted comments contending that "... the Materials Transportation Bureau and its predecessor, the Hazardous Materials Regulations Board, have failed to give sufficient rationale for many of the final rules developed ...". The Bureau disagrees. The amendments published under Docket HM-103/112 are justified and supported by adequate rationale. This rationale has been established from the information gathered in the nearly five years of careful analysis and study which included public hearings, and input by carriers and shippers prior to adopting final rules. The Bureau published an Advanced Notice of Proposed Rule Making on June 27, 1972, which first established the intent to promulgate new requirements pertaining to the transportation of hazardous materials. In that document, five problem areas were identified which stated that the regulations:

- (1) Generally were not addressed to more than one hazard;
- (2) Did not in all instances require disclosure of the presence of hazardous materials in transport vehicles;
- (3) Were not addressed to the different hazard characteristics of a mixed load of hazardous materials;
- (4) Did not provide sufficient information whereby fire fighting and other emergency response personnel can acquire adequate immediate information to handle emergency situations; and

(5) Are inconsistent in their application to the different modes of transport. The Bureau feels that the major problems identified nearly five years ago have in fact been solved by the amendments made under this docket.

A number of petitioners have urged that the Bureau reconsider its position relative to the use of abbreviations or codes on shipping papers. The Bureau believes, however, that sufficient and adequate information, for purposes of safety, must be conveyed on shipping papers in a uniform and readable manner. In addition, emergency response personnel must be able to quickly identify hazards of materials being transported in order that appropriate action can be initiated immediately. The use of codes and abbreviations in the past have not satisfied these requirements.

Several petitioners made comments concerning problems they envision relative to new requirements for dual labeling of certain materials. New requirements prescribe that a material classed as a flammable liquid that also meets the definition of a Class B poison must have both labels on the package. In the past, some materials having both hazards have been transported with foodstuff, but since the secondary hazard of a Poison B was not required to be identified, carriers unknowingly transported poisonous materials with foodstuffs. Now, however, these same materials should not be accepted by carriers transporting foodstuffs since the package is labeled "Poison" in addition to "Flammable Liquid." The Bureau does not believe any significant problems will be experienced due to the dual labeling requirements now prescribed.

Since all of the comments, suggestions, and petitions have now been addressed either through this preamble or by direct communication with the petitioner, this will be the final document dealing with the consolidation of the hazardous materials regulations.

LIST OF SECTIONS AFFECTED AND SUMMARY OF
CHANGES MADE IN THIS PUBLICATION

PART 171

§ 171.8 Definition of "consumer commodity" changed to include materials suitable for retail sales even if not specifically so intended. This definition includes items packaged suitably for retail sale but which may in fact be used in some other fashion.

§ 171.15 Update of section references dealing with immediate notification of radioactive contamination.

PART 172

§ 172.100 Clarification of appropriate optional use of prefix "mono".

§ 172.101 Revisions to Hazardous Materials Table to correct errors and incorporate changes made by this docket publication.

§ 172.201 Contrast requirements for basic shipping paper descriptions clarified.

§ 172.203 Replacement of repetitive language in shipping paper requirements for empty tank cars by reference to § 174.25(c).

§ 172.204 Addition of "is" in fifth line.

§ 172.304 Clarification: "Requirements" changed to "specifications" in section heading.

§ 172.306 Clarification of section heading and alternate marking exceptions.

§ 172.312 Addition of limited quantity exception from closure orientation for liquids. Comments were received which objected to the requirements that packages of flammable liquids in limited quantities be shipped with closures upward and so marked. The MTEB agrees and has revised the section to include the previous exception of certain limited quantities of flammable liquids since the record does not reveal any problems with the exception.

§ 172.328 Editorial reorganization of text on cargo tank marking size.

§ 172.330 Clarification of marking distinction between tank cars and multiunit DOT 106 and 110 tank car tanks; addition of marking exception for use of chlorine label.

§ 172.400 Editorial contraction of text on portable tank labeling exception.

§ 172.406 Spelling correction.

§ 172.504 (a): Clarification of applicability of general placarding requirements to freight containers. Table I: Clarification of placarding for Radioactive Yellow III label. Addition of exception for Corrosive placarding of uranium hexafluoride; shipment less than 1,000 lbs. excepted, paralleling § 172.504 (c). Table II: Reference to existing placarding exception for materials corrosive only to steel. (c): Freight containers containing less than 1,000 lbs. of hazardous materials excepted from highway placarding in same fashion as motor vehicles.

§ 172.508 Clarification of requirement that placarding of motor vehicles, transport containers and portable tanks on rail cars must be equivalent to rail car placarding to be acceptable in lieu of rail car placarding. An additional section reference is added to reflect this intent.

§ 172.512 (a): "Freight container placarding table" is deleted. This table is a graphic summary of placarding requirements, but has caused confusion. (b): Change in reference to clarify placarding exception for smaller freight containers which are properly labeled.

§ 172.514 Section reference correction, without substantive change.

Appendix B to Part 172—Amendment of list of Empty placards to include those for which the flammable-empty placard specifications are representative.

PART 173

§ 173.6 Clarification of pressure integrity of packages containing liquids to be shipped by air. The higher of the two existing standards applies.

§ 173.8 Spelling correction.

§ 173.29 (a) and (b) consolidated, (c)-(g) redesignated (b)-(f). (b): Nonmandatory loading instruction deleted as unnecessary. (d): Reference to EMPTY label corrected. (e): Same as (d). (f): No change.

§ 173.33 (c): Deleted. This paragraph addressed special permits for nonspecification cargo tanks. Exemption procedures are now set out in Part 107.

§ 173.116 (c): Deleted. Outage requirement for 150 proof spirits is adequately addressed in the more general paragraphs of this section.

§ 173.119 (a) and (m): Addition of prohibition against bulk shipment of organic peroxides in cargo tanks and tank cars. Organic peroxides were not a separate class before amendment of the regulations under HM-103/112 and were generally treated as oxidizing materials. In 1973 (38 FR 20837, August 3, 1973), paragraphs (m)(10) through (m)(15) were added to this section authorizing bulk rail and highway shipments of flammable liquids which are also oxidizing materials. That this change authorized shipment of organic peroxides was not fully realized until those substances were given a separate class under HM-

103/112. Although there may exist some liquid organic peroxides suitable for bulk shipment, a general authorization for such bulk shipments cannot be justified, was not intended, and is being withdrawn until such time as packaging specification for specifically identified organic peroxides can be published. (d): Correction of typographical error.

§ 173.124 (a)(5): Amendment of ethylene oxide tank car marking in favor of existing standard marking requirements of § 172.330.

§ 173.217 Correction of typographical error and section reference.

§ 173.232 Increase in allowable quantities of aluminum powder shipped in portable tanks. Increase from 5,000 to 6,500 pounds gross weight is justified by the shipping record and reflects package size used by shippers.

§ 173.244 Deletion of paragraph (c) which concerns packaging and exceptions for corrosive solids already substantially addressed in preceding paragraphs of this section.

§ 173.249 Clarification of packaging required for certain alkaline liquids presently authorized for shipment by passenger aircraft.

§ 173.263 Revision to authorize 15 percent hydrochloric acid to be shipped as ORM-D (see comment under § 173.1200).

§ 173.276 Deletion of reference to percentage concentration of hydrazine. "Hydrazine, aqueous solution" is an asterisk entry in § 172.101 and the shipper is responsible for determining whether the solution meets a hazard definition.

§ 173.288 Typographical correction.

§ 173.294 Clarification of packaging for monochloroacetic acid solution. This section is intended to address packaging for both anhydrous and solution forms.

§ 173.300 Correction of classification for flammable compressed gas as "flammable gas". "Flammable compressed gas" is not an authorized class.

§ 173.301 Clarification of paragraph (i), concerning testing of compressed gas cylinders in domestic use, to reference existing exception in paragraph (j).

§ 173.306 Correction of two inaccurate section references.

§ 173.315 Note 14: Typographical correction. Correction of section references concerning MC 330 and 331 cargo tank marking and shipping paper entries for anhydrous ammonia. Note 15: Section reference correction as above for anhydrous ammonia.

§ 173.332 Amendment of tank car marking requirement for hydrocyanic acid in favor of standard marking requirements of § 172.330.

§ 173.338 Deleted. See 41 FR 15985 (April 15, 1976).

§ 173.343 Clarification of Class B poison definition eliminating extraneous reference and excluding irritating materials.

§ 173.345 (a): Addition of exception for limited quantities of Poison B liquids from placarding and from highway and rail requirements other than those relating to shipping papers and to prohibition against commingling with foodstuffs. This exception parallels similar exceptions for limited quantity shipments of other classes of hazardous materials. (d): Clarification of permissible ORM-D classification of certain medicines.

§ 173.354 Amendment of tank car marking requirement for motor fuel antiknock compound in favor of standard marking requirements of § 172.330.

§ 173.364 Clarification of permissible ORM-D classification of certain medicines otherwise subject to Poison B solid classification.

§ 173.384 Addition of provisions for shipment of monochloroacetone, stabilized. This same provision was deleted as proposed under HM-103/112, based on erroneous information that the material was not being shipped.

§ 173.388 "Exceptions" substituted for "Exemptions", as the latter is properly used in reference to procedures under Part 107.

§ 173.392 Correction of section references relating to marking, labeling and placarding requirements for low specific activity radioactive material.

Appendix following § 173.432—deletion of appendix. This information already appears in Tables 1 and 2 of Appendix A to Part 172.

§ 173.800 Deletion of ORM-B classification of ammonium hydrogen fluoride. Several petitioners indicate that classification as a corrosive material may be more appropriate, and the classification consequently has been withdrawn pending further evaluation.

§ 173.1025 Provision for water shipment of non-ferrous metal shavings in compressed bales. This manner of shipment is common and was previously authorized under 46 CFR Part 146.

§ 173.1200 (a): Typographical corrections. (a)(2)(iii): Revision permitting shipment as ORM-D of corrosive liquids in concentrations of 15 percent or less in 1 qt. inside containers. This revision is based on the fact that 15 percent solutions are available through consumer retail outlets and upon the excellent safety record in commercial transportation of such liquids in 1 qt. containers. The 15 percent limitation will be subject to further reevaluation in the future. (a)(8)(ii): Addition of requirement that metal containers be used to ship compressed gases in quantities between 7.22 and 50 cubic inches. The word "metal", appearing in (a)(8)(ii), was inadvertently omitted.

Appendix A—clarification of procedures used to test skin corrosion.

PART 174

§ 174.5 Deletion of requirement that railway fuses be carried in a metal box. Fuses are not explosives and may be carried by railway personnel for immediate use.

§ 174.8 Clarification of inspection requirements applicable to only those placarded cars that are loaded.

§ 174.10 (a): Deletion of roof inspection for cars laden with explosives. Outside roof inspection is not practical. (c) Deletion of format requirement for freight bill placarding endorsement. This provision already appears in § 174.25(a).

§ 174.12 Amendment of requirement that intermediate carrier maintain file copy of shipper's certificate. The MTB agrees with comments suggesting that the origin carrier rather than intermediate carrier is the proper party to retain shippers' certificates.

§ 174.24 Transfer of (b) to § 174.26. Clarification of nonapplicability of general operating instructions to ORM classes.

§ 174.25 (a)(2)(ii): Elimination of spacing requirement for placard endorsement on rail shipping papers to facilitate computer processing. (b): Clarification of initial switching order requirements as applying only to loaded rail cars; deletion of shipper certification thereon when carrier has certified bill of lading; and deletion of requirement for placard endorsement thereon. (c): Rearrangement of text, and repeat of EMPTY placard requirements of § 172.510(c).

§ 174.26 (b): Elimination of "separate document" requirement for train consist showing car location. Documents required in paragraphs (a) and (b) may be separate, but need not be. (c): Former § 174.24(b).

§ 174.63 Substitution of "freight container" for "portable container" in section con-

cerning lading requirements. "Freight container" is defined § 171.8 and includes "portable container", a term which is not defined.

§ 174.89 Revision to reflect existing requirements for removing, replacing or reversing placards on empty tank cars.

§ 174.84 Switching requirements clarified as applicable to flatcars carrying placarded freight containers.

§ 174.88 Placement of rail placarded "Explosives A" clarified with respect to occupied cabooses.

§ 174.89 Placement of rail car placarded "Radioactive" clarified as applying only to loaded cars.

§ 174.104 Textual reorganization without substantive change.

§ 174.112 Addition of section references to reflect existing exceptions to closed rail car transportation of Class A explosives.

§ 174.480 Text change to reflect section heading, prohibiting commingling of poisonous flammable solids with foodstuffs.

§ 174.810 Authorization for wet electric storage batteries to be shipped in properly vented, refrigerator or "plug-door" cars. Venting is intended to eliminate chance accumulation of hydrogen gas.

PART 175

§ 175.10 "Part" changed to "subchapter" to clarify exception from Hazardous Materials Regulations of certain items carried by air.

§ 175.30 Prohibition against accepting damaged containers for air carriage clarified. This section is not intended to prohibit acceptance of containers bearing superficial dents not affecting package integrity.

PART 176

§ 176.11 Clarification of use of IMCO Code for foreign shipments. Compliance with DOT Hazardous Materials Regulations is required for materials not addressed by IMCO requirements.

§ 176.30 Clarification of dangerous cargo manifest. This document is not intended to include any material not subject to the Hazardous Materials Regulations or the IMCO Code.

§ 176.45 Substitution of "Captain of the Port" for "District Commander". Coast Guard response to notification of damaged package can be more expeditiously handled in this manner.

§ 176.48 Similar change for same reasons as above.

§ 176.52 Same.

§ 176.63 Elimination of requirement for on-deck sun protection for portable tanks. The tanks are of such size as to render erection of shade structures impractical.

§ 176.74 Relaxation of 50 percent total open deck stowage limitation. The intent of this section as published was to establish a practical limitation. However the provision was not sufficiently detailed to be used so it is being made advisory rather than mandatory.

§ 176.83 (d)(3): Clarification of alternative nature of segregation requirements for containers stowed on or under deck. Some confusion exists as to whether fore-and-aft and athwartships separation requirements are additive. They are not. As between two containers, either fore-and-aft or athwartships separation is required, but not both.

§ 176.905 (c): Editorial. (1): Addition of exception to stowage requirements for vehicles when stowed in space especially suited for vehicles. (1): Clarification of stowage of vehicular equipment with vehicles, formerly contained in (1)(2). Vehicular equipment may be stowed with vehicles.

GRANDFATHER CLAUSE

A number of commenters have requested an extension of the mandatory compliance dates. The bureau has reviewed the submitted comments and does not believe sufficient justification has been presented for an extension of the compliance dates. However, it has concern that there is a large package inventory and that shippers did not have sufficient time to make changes in their packaging, marking, and labeling of hazardous materials. To provide relief from this burden, the Bureau has decided to extend the grandfather clause to January 1, 1977. This will provide the time required to reduce large inventories of packagings that complied with regulations in effect before July 1, 1976.

The extension of the grandfather clause provides that a package which is filled, marked, or labeled before January 1, 1977, in accordance with regulations in effect on June 30, 1976, may be offered for transportation and transported before July 1, 1977, even though it may not

comply with the package, marking, labeling provision amendments listed in Docket HM-103/112 and effective on July 1, 1976.

In consideration of the foregoing CFR Parts 171 through 176 are amended as follows:

PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS

§ 171.8 [Amended]

1. § 171.8 is amended by changing word "and" in the third line of the definition of "Consumer commodity" to "or."

2. In § 171.15 paragraph (a) (4) revised to read as follows:

§ 171.15 Immediate notice of hazardous materials incidents.

(a) * * *

(4) Fire, breakage, spillage, suspected radioactive contamination involving shipment of radioactive material. (See also §§ 174.45, 175.45, and 177.807 of this subchapter.); c

§172.101 Hazardous Materials Table

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
A	Accumulator, pressurized (<i>pneumatic or hydraulic</i>), containing nonflammable gas	Nonflamma- ble gas	Nonflamma- ble gas	173.306		No limit	No limit	1,2	1,2	
	Acetal	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,3	4	
A	Acetaldehyde (<i>ethyl aldehyde</i>)	Flammable liquid	Flammable liquid	None	173.119	Forbidden	10 gallons	1,3	3	
	Acetaldehyde ammonia	ORM-A	None	173.505	173.510	No limit	No limit			
A	Acetic acid (<i>acetic solution</i>)	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1,2	1,2	Stow separate from nitric acid or oxidiz- ing materials
	Acetic acid, glacial	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1,2	1,2	Stow separate from nitric acid or oxidiz- ing materials. Segregation same as for flammable liquids
A	Acetic anhydride	Corrosive material	Corrosive	173.244	173.245	1 quart	1 gallon	1,2	1,2	
	Acetone	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,3	4	
A	Acetone cyanohydrin	Poison B	Poison	None	173.346	Forbidden	55 gallons	1	5	Shade from radiant heat. Stow away from corrosive materials
	Acetone oil	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,2	1	
A	Acetonitrile	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1	4	Shade from radiant heat
	Acetyl benzoyl peroxide, solid	Forbidden								
A	Acetyl benzoyl peroxide solution, not over 40% peroxide	Organic peroxide	Organic peroxide	None	173.222	Forbidden	1 quart	1,2	1	
	Acetyl bromide	Corrosive material	Corrosive	173.244	173.247	1 quart	1 gallon	1	1	Keep dry. Glass carboys not permitted on passenger vessels
A	Acetyl chloride	Flammable liquid	Flammable liquid	173.244	173.247	1 quart	1 gallon	1	1	Stow away from alcohols. Keep cool and dry. Separate longitudinally by an intervening complete compartment or hold from explosives
	Acetylene	Flammable gas	Flammable gas	None	173.303	Forbidden	300 pounds	1	1	Shade from radiant heat
A	Acetylene tetrabromide	ORM-A	None	173.505	173.510	10 gallons	55 gallons			
	Acetyl iodide	Corrosive material	Corrosive	173.244	173.247	1 quart	1 gallon	1	1	Keep dry. Glass carboys not permitted on passenger vessels
A	Acetyl peroxide solution, not over 25% peroxide	Organic peroxide	Organic peroxide	173.153	173.222	Forbidden	1 quart	1,2	1	
	Acid butyl phosphate	Corrosive material	Corrosive	173.244	173.245	1 quart	5 gallons	1,2	1,2	Glass carboys in hampers not permitted under deck
A	Acid carboy empty. See Carboy, empty									
	Acid, liquid, n.o.s.	Corrosive material	Corrosive	173.244	173.245	1 quart	5 pints	1	4	Keep cool
A	Acid, sludge	Corrosive material	Corrosive	None	173.248	Forbidden	1 quart	1,2	1	
	Acrolein, inhibited	Flammable liquid	Flammable liquid and Poison	None	173.122	Forbidden	1 quart	1,2	3	Keep cool. Stow away from living quar- ters
A	Acrylic acid	Corrosive material	Corrosive	173.244	173.245	1 quart	5 pints	1	1	
	Acrylonitrile	Flammable liquid	Flammable liquid and Poison	None	173.119	Forbidden	1 quart	1,2	3	Keep cool
A	Actuating cartridge, explosive (<i>fire extinguisher, or valve</i>)	Class C explosive	Explosive C	173.114		50 pounds	150 pounds	1,2	1,2	Keep cool and dry
	Adhesive, n.o.s. See Cement, liquid, n.o.s.									
A	Aerosol product, each aerosol container exceeding 50 cubic inches capacity. See Compressed gas, n.o.s.									
	Air, compressed	Nonflamma- ble gas	Nonflamma- ble gas	173.306	173.302	150 pounds	300 pounds	1,2	1,2	
A	Aircraft rocket engine (<i>Commercial</i>)	Flammable solid	Flammable solid	None	173.238	Forbidden	550 pounds	1,3	5	
	Aircraft rocket engine igniter (<i>Commercial</i>)	Flammable solid	Flammable solid	None	173.238	Forbidden	25 pounds	1,3	3	
A	Airplane flare. See Fireworks, special									
	Alcohol, n.o.s.	Flammable liquid	Flammable liquid	173.118	173.125	1 quart	10 gallons	1,2	1	
A	Alcohol, n.o.s.	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
	Aldrin	Poison B	Poison	173.364	173.376	50 pounds	200 pounds	1,2	1,2	
A	Aldrin, cast solid	ORM-A	None	173.505	173.510	No limit	No limit			
	Aldrin mixture, dry (<i>with more than 65% aldrin</i>)	Poison B	Poison	173.364	173.376	50 pounds	200 pounds	1,2	1,2	
A	Aldrin mixture, dry, with 65% or less aldrin	ORM-A	None	173.505	173.510	No limit	No limit			

RULES AND REGULATIONS

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
	Aldrin mixture, liquid (with more than 60% aldrin)	Poison B	Poison	173.345	173.361	1 quart	55 gallons	1,2	1,2	If flash point less than 141 DEG F., segregation same as for flammable liquids
A	Aldrin mixture, liquid, with 60% or less aldrin	ORM-A	None	173.505	173.510	No limit	No limit			
	Alkaline corrosive battery fluid	Corrosive material	Corrosive	173.244	173.249 173.257	1 quart	5 gallons	1,2	1,2	
	Alkaline corrosive battery fluid with empty storage battery	Corrosive material	Corrosive	None	173.258	Forbidden	5 pints	1,2	1,2	
	Alkaline corrosive liquid, n.o.s.	Corrosive material	Corrosive	173.244	173.249	1 quart	5 gallons	1,2	1,2	
	Alkaline liquid, n.o.s.	Corrosive material	Corrosive	173.244	173.249	1 quart	5 gallons	1,2	1,2	
	Alkane sulfonic acid	Corrosive material	Corrosive	173.244	173.245	5 pints	1 gallon	1,2	1	
	Alkyl aluminum halides. See Pyrophoric liquid, n.o.s.									
A	Allithrin	ORM-A	None	173.505	173.510	No limit	No limit			
	Allyl alcohol	Flammable liquid	Flammable liquid and Poison	173.118	173.119	1 quart	10 gallons	1,2	1	
	Allyl bromide	Flammable liquid	Flammable liquid	173.118	173.119	Forbidden	10 gallons	1,2	1	
	Allyl chloride	Flammable liquid	Flammable liquid	None	173.119	Forbidden	10 gallons	1,3	5	
	Allyl chlorocarbonate	Flammable liquid	Flammable liquid	None	173.288	Forbidden	5 pints	1	5	Keep dry. Separate longitudinally by an intervening complete bulk or compartment from explosives. Segregation same as for corrosive materials
	Allyl chloroformate. See Allyl chlorocarbonate									
	Allyl trichlorosilane	Corrosive material	Corrosive	None	173.280	Forbidden	10 gallons	1	1	Keep dry
	Aluminum alkyls. See Pyrophoric liquid, n.o.s.									
	Aluminum bromide, anhydrous	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1,2	1,2	Keep dry
	Aluminum dross, wet or hot. See Sec. 173.173									
	Aluminum hydride	Flammable solid	Flammable solid and Dangerous when wet	None	173.206	Forbidden	25 pounds	1,2	5	Segregation same as for flammable solid labeled Dangerous When Wet
	Aluminum, liquid or paint. See Paint, enamel, lacquer stain, shellac, varnish, etc.									
	Aluminum, metallic, powder	Flammable solid	Flammable solid	173.232	173.232	25 pounds	100 pounds	1,2	1,2	Keep dry. Segregation same as for flammable solids labeled dangerous when wet
	Aluminum nitrate	Oxidizer	Oxidizer	173.153	173.182	25 pounds	100 pounds	1,2	1,2	
	Aluminum phosphate solution	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1,2	1,2	
	Aluminum phosphide	Flammable solid	Flammable solid and Dangerous when wet	None	173.154	Forbidden	25 pounds	1,2	1,2	Stow away from acids and oxidizing materials
	Amatol. See High explosive									
	2-(2-Aminoethoxy) ethanol	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1,2	1,2	
	N-Aminoethylpiperazine	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1,2	1,2	
	Aminopropyl diethanolamine	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1,2	1,2	
	n-Aminopropylmorpholine	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1,2	1,2	
	bis (Aminopropyl) piperazine	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1,2	1,2	
	Ammonia, anhydrous	Nonflammable gas	Nonflammable gas	173.306	173.304 173.314 173.315	Forbidden	300 pounds	1,2	4	Stow in well ventilated space
	Ammonia solution (containing more than 44% ammonia)	Nonflammable gas	Nonflammable gas	173.306	173.304 173.314 173.315	Forbidden	300 pounds	1,2	4	Stow in well ventilated space
	Ammonia solution (containing 44% or less ammonia in water). See Ammonium hydroxide									
	Ammonium arsenate, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1,2	1,2	Stow away from alkaline corrosives
	Ammonium bifluoride. See Ammonium hydrogen fluoride									

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§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pass- enger vessel	(c) Other requirements
	Ammonium chloride	Forbidden								
	Ammonium dichromate (<i>ammonium bichromate</i>)	Oxidizer	Oxidizer	173.153	173.154 173.235	25 pounds	100 pounds	1.2	1.2	
A	Ammonium fluoride	ORM-B	None	173.505	173.510 173.800	25 pounds	100 pounds			
	Ammonium hydrogen fluoride solution	Corrosive material	Corrosive	173.244	173.245	1 quart	5 gallons	1.2	1.2	Keep dry
A	Ammonium hydrogen sulfate	ORM-B	None	173.505	173.510 173.800	25 pounds	100 pounds			
A	Ammonium hydroxide solution	ORM-A	None	173.505	173.610 173.605	10 gallons	55 gallons			
	Ammonium hydroxide (containing not more than 44% ammonia)	Corrosive material	Corrosive	173.244	173.245	2 gallons	2 gallons	1	4	
	Ammonium nitrate (no organic coating)	Oxidizer	Oxidizer	173.153	173.182	25 pounds	100 pounds	1.2	1.2	
	Ammonium nitrate (organic coating)	Oxidizer	Oxidizer	173.153	173.182	25 pounds	100 pounds	1.2	1.2	
	Ammonium nitrate-carbonate mixture	Oxidizer	Oxidizer	173.153	173.182	25 pounds	100 pounds	1.2	1.2	
	Ammonium nitrate fertilizer, containing no more than 0.2% carbon	Oxidizer	Oxidizer	173.153	173.182	25 pounds	100 pounds	1.2	1.2	
	Ammonium nitrate-fuel oil mixture. See Nitro carbontriate or Explosive, Class A or B									
	Ammonium nitrate mixed fertilizer	Oxidizer	Oxidizer	173.153	173.182	25 pounds	100 pounds	1.2	1.2	
	Ammonium nitrate-phosphate	Oxidizer	Oxidizer	173.153	173.182	25 pounds	100 pounds	1.2	1.2	
	Ammonium perchlorate	Oxidizer	Oxidizer	173.153	173.154 173.239a	25 pounds	100 pounds	1.2	4	Stow away from powdered metals
	Ammonium perchlorate. See High explosives									
	Ammonium permanganate	Oxidizer	Oxidizer	None	173.154	Forbidden	Forbidden	1.2	1.2	Separate from ammonium compounds and hydrogen peroxide. This material may be forbidden in water transportation by certain countries
	Ammonium picrate. See High explosive									
	Ammonium picric acid, wet (with 10% or more water)	Flammable solid	Flammable solid	173.192		1 pound	1 pound	1	4	Stow away from heavy metals and their compounds
A	Ammonium polysulfide solution	ORM-A	None	173.505	173.510 173.605	10 gallons	55 gallons			
W	Ammonium sulfate nitrate	ORM-C	None	173.505	173.910			1.2	1.2	Must not be accepted for transportation while hot. Separate by an intervening hold or compartment from Class A explosives. Separate from other explosives, corrosive materials, flammable solids, liquids, or gases, oxidizing materials, organic peroxides, or organic materials
	Ammonium sulfide solution	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1.2	
	Ammonium, chemical (containing a Poison A liquid or gas). See Chemical ammonium (containing a Poison A material)									
	Ammonium, chemical (containing a Poison B material). See Chemical ammonium (containing a Poison B material)									
	Ammonium, chemical (containing an irritating liquid or solid). See Chemical ammonium (containing an irritating material)									
	Ammonium, chemical, explosive, with Poison A material	Class A explosive	Explosive A and Poison gas	None	173.59	Forbidden	Forbidden	6	5	No other cargo may be stowed in the same hold with these items
	Ammonium, chemical, explosive, with Poison B material	Class A explosive	Explosive A and Poison	None	173.59	Forbidden	Forbidden	6	5	No other cargo may be stowed in the same hold with these items
	Ammonium, chemical, explosive, with irritant	Class A explosive	Explosive A and Irritant	None	173.59	Forbidden	Forbidden	6	5	No other cargo may be stowed in the same hold with these items
	Ammonium for cannon with empty projectile	Class B explosive	Explosive B	None	173.89	Forbidden	Forbidden	1.2	5	
	Ammonium for cannon with explosive projectile	Class A explosive	Explosive A	None	173.54	Forbidden	Forbidden	6	5	
	Ammonium for cannon with gas projectile	Class A explosive	Explosive A	None	173.54	Forbidden	Forbidden	6	5	
	Ammonium for cannon with illuminating projectile	Class A explosive	Explosive A	None	173.54	Forbidden	Forbidden	6	5	
	Ammonium for cannon with incendiary projectile	Class A explosive	Explosive A	None	173.54	Forbidden	Forbidden	6	5	
	Ammonium for cannon with inert loaded projectile	Class B explosive	Explosive B	None	173.89	Forbidden	Forbidden	1.2	5	

§172.101 Hazardous Materials Table (cont'd)

(1) WJ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger- carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pass- enger vessel	(c) Other requirements
	Ammunition for cannon with smoke projectile	Class A explosive	Explosive A	None	173.54	Forbidden	Forbidden	6	5	
	Ammunition for cannon with solid projectile	Class B explosive	Explosive B	None	173.59	Forbidden	Forbidden	1.2	5	
	Ammunition for cannon without projectile	Class B explosive	Explosive B	None	173.59	Forbidden	Forbidden	1.2	5	
	Ammunition, non-explosive			173.55						
	Ammunition for small-arms with explosive projectile	Class A explosive	Explosive A	None	173.58	Forbidden	Forbidden	6	5	
	Ammunition for small-arms with incendiary projectile	Class A explosive	Explosive A	None	173.58	Forbidden	Forbidden	6	5	
	Ammunition, rocket. See Rocket ammunition									
	Ammunition, small-arms. See Small-arms ammunition									
	Amyl acetate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1.2	
	Amyl acid phosphate	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
	Amylamine	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Amyl chloride	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Amylene, normal	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.3	1.3	
	Amyl formate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Amyl mercaptan	Flammable liquid	Flammable liquid	None	173.141	Forbidden	10 gallons	1.2	1	
	Amyl nitrite	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.3	4	
	Amyl trichloroacetate	Corrosive material	Corrosive	None	173.280	Forbidden	10 gallons	1	5	Keep dry
	Anhydrous ammonia. See Ammonia, anhydrous									
	Anhydrous hydrazine. See Hydrazine, anhydrous									
	Anhydrous hydrofluoric acid. See Hydrogen fluoride									
	Aniline oil drum, empty. See 173.347(d)	Poison B						1.2	1	Do not accept unless returnable package notice is on drum and the instructions thereon have been carried out
	Aniline oil, liquid	Poison B	Poison	None	173.347	Forbidden	55 gallons	1.2	1.2	Stow away from oxidizing materials and acids
	Anisoyl chloride	Corrosive material	Corrosive	173.244	173.279	1 quart	1 quart	1	1	Keep dry
	Antifreeze compound, liquid	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Antifreeze compound, liquid	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Antifreeze preparation, liquid	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Antifreeze preparation, liquid	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Antimony chloride. See Antimony trichloride									
A	Antimony lactate, solid	ORM-A	None	173.505	173.510	No limit	No limit	1	1	Keep dry. Glass carboys not permitted on passenger vessels
	Antimony pentachloride	Corrosive material	Corrosive	None	173.247	1 quart	1 quart	1	1	Keep dry. Glass carboys not permitted on passenger vessels
	Antimony pentachloride solution	Corrosive material	Corrosive	173.244	173.245	1 quart	5 pints	1	1	Keep dry
	Antimony pentachloride	Corrosive material	Corrosive	None	173.246	Forbidden	25 pounds	1	5	Keep dry
A	Antimony potassium tartrate solid	ORM-A	None	173.505	173.510	No limit	No limit	1	1	
A	Antimony sulfide, solid	ORM-A	None	173.505	173.510	No limit	No limit	1	1	
	Antimony trichloride, solid	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1.2	1.2	Keep dry
	Antimony trichloride solution	Corrosive material	Corrosive	173.244	173.245	1 quart	5 pints	1	1	Keep dry
	Aqua ammonia solution (containing 44% or less ammonia). See Ammonium hydroxide									
	Argon	Nonflammable gas	Nonflammable gas	173.306	173.302	150 pounds	300 pounds	1.3	1.3	
	Argon, liquid pressurized	Nonflammable gas	Nonflammable gas	None	173.304	Forbidden	300 pounds	1.3	1.3	
	Arsenic acid, solid	Poison B	Poison	173.364	173.366	50 pounds	200 pounds	1.2	1.2	
	Arsenic acid solution	Poison B	Poison	173.345	173.348	1 quart	55 gallons	1.2	1.2	

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments			
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements	
•	Arsenical compound n.o.s., liquid, or arsenical mixture, n.o.s., liquid	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1.2	Keep dry	
	Arsenical compound n.o.s., solid, or arsenical mixture, n.o.s., solid	Poison B	Poison	173.364	173.367	50 pounds	200 pounds	1.2	1.2		
	Arsenical dip., liquid (<i>sheep dip</i>)	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1.2		
	Arsenical dust	Poison B	Poison	173.364	173.368	50 pounds	200 pounds	1.2	1.2		
	Arsenical flag dust	Poison B	Poison	173.364	173.368	50 pounds	200 pounds	1.2	1.2		
	Arsenic bromide, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2		
	Arsenic chloride (<i>arsenious</i>) liquid. See Arsenic trichloride	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2		
	Arsenic iodide, solid										
	Arsenic pentoxide, solid	Poison B	Poison	173.344	173.365	50 pounds	200 pounds	1.2	1.2		
	Arsenic, solid	Poison B	Poison	173.364	173.366	50 pounds	200 pounds	1.2	1.2		
	Arsenic sulfide, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2		
	Arsenic trichloride, liquid	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1.2		
	Arsenic trioxide, solid	Poison B	Poison	173.364	173.366 173.368	50 pounds	200 pounds	1.2	1.2		
	Arsenic, white, solid. See Arsenic trioxide, solid	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1.2		
	Arsenious acid, solid. See Arsenic trioxide, solid										
	Arsenious and mercuric iodide solution	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1.2		
	Arsine	Poison A	Poison gas and Flammable gas	None	173.328	Forbidden	Forbidden	1	5		
W	Asphalt, at or above its flashpoint	ORM-C	None	None	None	Forbidden	Forbidden	1	5	When applicable, no fire or residues thereof may be present in the furnace heating the substance while the vehicle is on board a cargo vessel	
•	Asphalt, cut back	Flammable liquid	Flammable liquid	173.118	173.131	1 quart	40 gallons	1.2	1		
•	Asphalt, cut back	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2		
	Automobile, motorcycle, tractor, or other self-propelled vehicle. See Motor Vehicle	Flammable solid	Flammable solid	None	173.155	Forbidden	25 pounds	1.2	1.2		
	Automobile, motorcycle, tractor, or other self-propelled vehicle, engine, or other mechanical apparatus, with charged electric storage battery, wet. See Motor Vehicle										
	1-Azididyl phosphine oxide (tris). See Tris-[(1-azididyl)] phosphine oxide	Flammable solid	Flammable solid	None	173.239	Forbidden	1 pound	1.2	1.2		
	Bags, barrels, cans, must be closed for the hazardous material previously contained in bag. See 173.28, 173.29										
	Bags, sodium nitrate, empty and unwashed	Flammable solid	Flammable solid	None	173.155	Forbidden	25 pounds	1.2	1.2		
•	Barium azide, wet, 50% or more water	Flammable solid	Flammable solid	None	173.239	Forbidden	1 pound	1.2	1.2		
	Barium chlorate	Oxidizer	Oxidizer	173.153	173.163	25 pounds	100 pounds	1.2	1.2		
•	Barium chlorate, wet	Oxidizer	Oxidizer	173.153	173.163	25 pounds	200 pounds	1.2	1.2		
	Barium cyanide, solid	Poison B	Poison	173.370	173.370	25 pounds	200 pounds	1.2	1.2		
	Barium nitrate	Oxidizer	Oxidizer	173.153	173.182	25 pounds	100 pounds	1.2	1.2		
A	Barium oxide	ORM-B	None	173.505	173.510 173.800	25 pounds	100 pounds	1.2	1.2		
	Barium perchlorate	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1.2	1.2		
	Barium permanganate	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1.2	1.2		
	Barium peroxide (binoxide, dioxide)	Oxidizer	Oxidizer	173.153	173.156	25 pounds	100 pounds	1.2	1.2		
	Barrel, empty. See Drum, empty	Corrosive material	Corrosive	None	173.259	Forbidden	5 pints	1.2	1.2		
	Battery charger with electrolyte (acid or alkaline battery fluid)										
	Battery, dry. Not subject to Parts 170- 189 of this subchapter	Corrosive material	Corrosive	173.260		Forbidden	No limit	1.2	1.2		
	Battery, electric storage, wet										

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger- carrying aircraft or railroad	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pass- enger vessel	(c) Other requirements
W	Battery, electric storage, wet, with automobile, auto parts, engine (or other specifically named mechanical apparatus)	Corrosive material	Corrosive	173.250	173.260	No limit	No limit	1.2	1.2	Keep dry
	Battery, electric storage, wet with containers of corrosive battery fluid <i>Battery fluid. See Electrolyte (acid) or Alkaline battery fluid</i>	Corrosive material	Corrosive	None	173.258	Forbidden	2 gallons	1.2	1.2	
W	Battery parts (plates, grids, etc., unwashed, exhausted)	ORM-C	None	173.505	173.915			1.2	4	
	Benzaldehyde	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
W	Benzene (benzol)	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Benzene phosphorus dichloride	Corrosive material	Corrosive	None	173.250a	Forbidden	5 pints	1	5	
W	Benzene phosphorus trichloride	Corrosive material	Corrosive	None	173.250a	Forbidden	5 pints	1	5	
	Benzone	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
W	Benzoyl chloride	Corrosive material	Corrosive	173.244	173.247	1 quart	1 quart	1	1	Keep dry. Glass carboys not permitted on passenger vessels
	Benzoyl peroxide	Organic peroxide	Organic peroxide	None	173.157 173.158	Forbidden	25 pounds	1.2	1	
W	Benzyl bromide (bromotoluene, alpha)	Corrosive material	Corrosive	None	173.281	Forbidden	5 pints	1	5	Keep dry
	Benzyl chloride	Corrosive material	Corrosive	173.244	173.295	Forbidden	1 quart	1	4	Keep dry
W	Benzyl chloroformate (or Benzyl chlorocarbonate)	Corrosive material	Corrosive	None	173.288	Forbidden	5 pints	1	5	Keep dry
	Beryllium compound, n.o.s.	Poison, II	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
W	Black powder	Class A explosive	Explosive A	None	173.60	Forbidden	Forbidden	6	5	
	Black powder igniter with empty cartridge bag	Class C explosive	Explosive C	None	173.106	50 pounds	150 pounds	1.3	1.3	
W	Blasting caps—(1,000 or less) (Show actual number)	Class C explosive	Explosive C	None	173.103	Forbidden	Forbidden	1.2	5	Portable magazine or metal locker. Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded
	Blasting caps—(more than 1,000) (Show actual number)	Class A explosive	Explosive A	None	173.66	Forbidden	Forbidden	6	5	Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded
W	Blasting caps—electric (1,000 or less) (Show actual number)	Class C explosive	Explosive C	None	173.103	Forbidden	Forbidden	1.2	5	Portable magazine or metal locker. Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded
	Blasting caps—electric (more than 1,000) (Show actual number)	Class A explosive	Explosive A	None	173.66	Forbidden	Forbidden	6	5	Magazine. Do not stow blasting caps with any high explosives. Do not handle blasting caps at the same time high explosives are being loaded
W	Blasting caps with metal clad mild detonating fuse—(1,000 or less) (Show actual number)	Class C explosive	Explosive C	None	173.103	Forbidden	Forbidden	1.2	5	Portable magazine or metal locker. Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded
	Blasting caps with metal clad mild detonating fuse—(more than 1,000) (Show actual number)	Class A explosive	Explosive A	None	173.66 173.67	Forbidden	Forbidden	6	5	Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded
W	Blasting caps with safety fuse—(1,000 or less) (Show actual number)	Class C explosive	Explosive C	None	173.103	Forbidden	Forbidden	1.2	5	Portable magazine or metal locker. Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded
	Blasting caps with safety fuse—(more than 1,000) (Show actual number)	Class A explosive	Explosive A	None	173.66 173.67	Forbidden	Forbidden	6	5	Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded
W	Blasting gelatin. See High explosive									
	Blasting powder. See Black powder									
W	Bleaching powder, containing 39% or less available chlorine	ORM-C	None	173.505	173.920			1.2	1.2	Keep dry. Stow separate from flammable liquids and acids. (Stow away from oils, grease, and similar organic materials)
	Bleaching powder, over 39% available chlorine	Oxidizer	Oxidizer	173.153	173.217	50 pounds	100 pounds	1.2	1.2	Keep cool and dry
W	Boiler compound, liquid	Corrosive material	Corrosive	173.244	173.249	1 quart	10 gallons	1.2	1.2	
	Bomb, explosive. See Explosive bomb									

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pass- enger vessel	(c) Other requirements
	Bomb, explosive with gas, smoke, or incendiary material. See Explosive bomb									
	Bomb, fireworks. See Fireworks, special									
	Bomb, gas, smoke, or incendiary, non-explosive. See Chemical ammunition									
	Bomb, incendiary, or smoke without bursting charge. See Fireworks, special									
	Bomb, practice, with electric primer or electric squib (non-explosive)			173.35						
	Bomb, sand-loaded or empty (non-explosive)			173.35						
A	Bono oil	ORM-A	None	173.305	173.310	No limit	No limit			
	Booster, explosive	Class A explosive	Explosive A	None	173.69	Forbidden	Forbidden	6	5	
	Bordeaux arsenite, liquid	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1.2	
	Bordeaux arsenite, solid	Poison B	Poison	173.364	173.365	1 quart	50 pounds	1.2	1.2	
	Boron tribromide	Corrosive material	Corrosive	None	173.251	Forbidden	1 quart	1	5	
	Boron trichloride	Corrosive material	Corrosive	None	173.251	Forbidden	1 quart	1.2	5	Stow in well ventilated space. Shade from radiant heat. Segregation same as for nonflammable gases
	Boron trifluoride	Nonflammable gas	Nonflammable gas and Poison	None	173.302	Forbidden	Forbidden	1.2	5	Stow away from living quarters and foodstuffs
	Boron trifluoride-acetic acid complex	Corrosive material	Corrosive	173.244	173.247	1 quart	1 gallon	1.2	1.2	
W	Bottles, having previously contained a hazardous material and not cleaned. See 173.29									
	Box toe board (nitrocellulose base)	ORM-C	None	173.305	173.925			1.3	1.3	Provide cool storage in a compartment having a temperature not exceeding 130 DEG F., well away from any sources of heat, and in position to protect or move, over to jettison in event of fire. Separate from explosives, flammable liquids or gases, oxidizing materials, organic peroxides, or corrosive liquids.
	Box toe gum	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Box toe gum	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Bromine	Corrosive material	Corrosive	None	173.252	Forbidden	1 quart	1	5	Keep cool
	Bromine pentafluoride	Oxidizer	Oxidizer	None	173.246	Forbidden	100 pounds	1	5	Shade from radiant heat. Segregation same as for corrosive
	Bromine trifluoride	Oxidizer	Oxidizer and Poison	None	173.246	Forbidden	100 pounds	1	5	Shade from radiant heat. Segregation same as for corrosive
	Bromoacetic acid, solid	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1.2	1.2	Keep dry
	Bromoacetic acid solution	Corrosive material	Corrosive	173.244	173.245	1 quart	1 quart	1.2	1.2	Glass carboys in hampers not permitted under deck
	Bromoacetone, liquid	Poison A	Poison gas	None	173.329	Forbidden	Forbidden	1	5	Segregation same as for flammable liquids
	Bromobenzene	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Bromotoluene, alpha. See Benzyl bromide									
	Brucine, solid (dimethoxy strychnine)	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
W	Burlap bags, cleaned (vacuum cleaned, wheel cleaned, or otherwise mechanically brushed). See Burlap cloth									
W	Burlap bags, new. See Burlap cloth									
AW	Burlap bags, used and unwashed, or not cleaned	ORM-C	None	173.930		No limit	No limit	1	1	Keep cool
W	Burlap cloth (heslan)	ORM-C	None	173.931				1.2	1.2	Keep dry. Stow away from organic liquids
	Burnt cotton, not repicked	Flammable solid	Flammable solid	None	173.159	Forbidden	Forbidden	1	5	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Burnt fiber	Flammable solid	Flammable solid	None	173.169	Forbidden	Forbidden	1.2	1.2	Separate from flammable gases or liquids, oxidizing materials or organic peroxides
	Burner, explosive	Class A explosive	Explosive A	None	173.69	Forbidden	Forbidden	6	5	
	Butadiene, inhibited	Flammable gas	Flammable gas	173.306	173.304 173.314 173.315	Forbidden	300 pounds	1.2	1	Stow away from living quarters
	Butane or Liquefied petroleum gas. See Liquefied petroleum gas									

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
	Butyl acetate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	n-Butyl acid phosphate. See Acid butyl phosphate									
	Butyl alcohol. See Alcohol, n.o.s.									
	Butylamine	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Butyl bromide, normal	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Butyl chloride	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Butyl ether	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1.2	
	Butyl formate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	n-Butyl isocyanate	Flammable liquid	Flammable liquid and poison	173.118	173.119	1 quart	10 gallons	1.2	1	
	Butyl mercaptan	Flammable liquid	Flammable liquid	None	173.141	Forbidden	10 gallons	1.3	5	
	Butyl phosphoric acid. See Acid-butyl phosphate									
	Butyl trichlorosilane	Corrosive material	Corrosive	None	173.280	Forbidden	10 gallons	1	1	Keep dry
	Butyraldehyde	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Butyric acid	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
	Calcium arsenate, solid	Poison B	Poison	173.364	173.367 173.368	50 pounds	200 pounds	1.2	1.2	
	Calcium arsenite, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Calcium bisulfite solution. See Calcium hydrogen sulfite solution									
	Calcium carbide	Flammable solid	Flammable solid and dangerous when wet	None	173.178	Forbidden	25 pounds	1.2	1.2	Keep dry. Store away from copper, its alloys, and salts
	Calcium chlorate	Oxidizer	Oxidizer	173.153	173.163	25 pounds	100 pounds	1.2	1.2	Separate from ammonium compounds. Store away from powdered metals and cyanides
	Calcium chlorite	Oxidizer	Oxidizer	None	173.160	Forbidden	100 pounds	1.2	1.2	Separate from ammonium compounds powdered materials, and cyanides
AW	Calcium cyanamide, not hydrated, containing more than 0.1% calcium carbide	ORM-C	None	None	173.945	25 pounds	200 pounds	1.2	1.2	Segregation same as for flammable solids labeled Dangerous When Wet
	Calcium cyanide, solid or Calcium cyanide mixture, solid	Poison B	Poison	173.370		25 pounds	200 pounds	1.2	1.2	Store away from corrosive liquids. Keep dry
	Calcium hydrogen sulfite solution	Corrosive material	Corrosive	173.244	173.245	1 quart	5 gallons	1.2	1.2	
	Calcium hypochlorite mixture, dry, (containing more than 39% available chlorine)	Oxidizer	Oxidizer	173.153	173.217	50 pounds	100 pounds	1.2	1.2	Keep cool and dry
	Calcium, metal	Flammable solid	Flammable solid and dangerous when wet	173.153	173.154	25 pounds	100 pounds	1.2	4	Keep cool and dry. Segregation same as for flammable solids labeled Dangerous When Wet
	Calcium, metal, crystalline	Flammable solid	Flammable solid and dangerous when wet	None	173.231	Forbidden	25 pounds	1.2	5	Keep cool and dry. Segregation same as for flammable solids labeled Dangerous When Wet
	Calcium nitrate (See Sec. 173.182 Note)	Oxidizer	Oxidizer	173.153	173.182	25 pounds	100 pounds	1.2	1.2	
AW	Calcium oxide	ORM-B	None	173.505	173.650	25 pounds	100 pounds	1.2	1.2	Keep dry. Store away from explosives, acids, combustible materials, and am- monium salts
	Calcium permanganate	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1.2	1.2	Separate from ammonium compounds and hydrogen peroxide
	Calcium peroxide	Oxidizer	Oxidizer	173.153	173.156	25 pounds	100 pounds	1.2	1.2	Keep dry
	Calcium phosphide	Flammable solid	Flammable solid and dangerous when wet	None	173.161	Forbidden	25 pounds	1	5	Keep cool and dry. Segregation same as for flammable solids labeled Dangerous When Wet
	Calcium resinate	Flammable solid	Flammable solid	None	173.166	Forbidden	125 pounds	1	5	
	Calcium resinate, fused	Flammable solid	Flammable solid	None	173.166	Forbidden	125 pounds	1	5	
AW	Camphene	ORM-A	None	173.505	173.610	No limit	No limit	1.3	1.3	Store away from foodstuffs and living quarters
	Camphor oil	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pass- enger vessel	(c) Other requirements
	Cannon primers	Class C explosive	Explosive C	None	173.107	50 pounds	150 pounds	1.3	5	
	Caprylyl peroxide solution	Organic peroxide	Organic peroxide	173.153	173.221	1 quart	1 quart	1.2	4	Keep cool. Stow separate from com- bustible materials, explosives, or acids
	<i>Caps, blasting. See Blasting caps</i>									
	<i>Caps, toy. See Toy caps</i>									
A	Carbaryl	ORM-A Poison B	None Poison	173.505 173.345	173.510 173.349	No limit 1 quart	No limit 55 gallons	1.2	1.2	
	Carbolic acid, liquid or Phenol, liquid (liquid tar acid containing over 50% hexaphenol)	Poison B	Poison	173.364	173.369	50 pounds	250 pounds	1.2	1.2	
	Carbolic acid, or Phenol									
	Carbon bisulfide, or Carbon disulfide	Flammable liquid	Flammable liquid	None	173.121	Forbidden	Forbidden	1	5	Keep cool. Not permitted on any vessel transporting explosives
	Carbon dioxide, liquefied	Nonflamma- ble gas	Nonflamma- ble gas	173.306	173.304 173.314 173.315	150 pounds	300 pounds	1.2	1.2	
	Carbon dioxide-nitrous oxide mixture	Nonflamma- ble gas	Nonflamma- ble gas	173.306	173.304	150 pounds	300 pounds	1.2	1.2	
	Carbon dioxide-oxygen mixture	Nonflamma- ble gas	Nonflamma- ble gas	173.306	173.304	150 pounds	300 pounds	1.2	1.2	
AW	Carbon dioxide, solid, or Dry ice, or Carbonic	ORM-A	None	None	173.615	440 pounds	440 pounds	1	1	Stow away from open ventilators. Stow away from cyanides or cyanide mix- tures, liquid or dry
	Carbon monoxide	Flammable gas	Flammable gas	173.306	173.302	Forbidden	150 pounds	1	4	
	Carbon remover, liquid	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
AW	Carbon tetrachloride	ORM-A	None	173.503	173.620	1 quart	55 gallons	1.2	1.2	Stow away from living quarters
	<i>Carbonyl chloride. See Phosgene</i>									
	<i>Carboys, empty, must be classed for the hazardous material previously contained in carboy. See 173.29</i>									
	Cartridge bags, empty, with black powder igniter	Class C explosive	Explosive C	None	173.106	50 pounds	150 pounds	1.3	1.3	
	Cartridge cases, empty, primed	Class C explosive	Explosive C	None	173.102	50 pounds	150 pounds	1.3	1.3	
	Cartridge, practice ammunition	Class C explosive	Explosive C	None	173.101a	50 pounds	150 pounds	1.2	1.2	
	<i>Case oil. See Gasoline or Naphtha</i>									
	<i>Casinghead gasoline. See Gasoline</i>									
W	Castor beans	ORM-C	None	173.503	173.952			1.2	1.2	Stow away from living quarters and foodstuffs. Bulk shipments permitted in tight vans or containers only on cargo vessels (Castor beans only)
W	Castor pomace. <i>See</i> Castor beans									
	Caustic potash, dry, solid, flake, bead, or granular. <i>See</i> Potassium hydroxide, dry, etc.									
	Caustic potash, liquid or solution. <i>See</i> Potassium hydroxide solution									
	Caustic soda, dry, solid, flake, bead, or granular. <i>See</i> Sodium hydroxide, dry, etc.									
	Caustic soda, liquid or solution. <i>See</i> Sodium hydroxide solution									
W	<i>Cellulosolve. See Ethylene glycol monochyl ether</i>									
W	<i>Cellulosolve acetate. See Ethylene glycol monochyl ether acetate</i>									
	Cement, adhesive, n.o.s. <i>See</i> Cement, liquid, n.o.s.									
	Cement, container, linoleum, tile, or wallboard, liquid	Flammable liquid	Flammable liquid	173.118	173.132	1 quart	15 gallons	1.2	1	
	Cement, leather	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Cement, liquid, n.o.s.	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Cement, liquid, n.o.s.	Flammable liquid	Flammable liquid	173.118	173.132	1 quart	10 gallons	1.2	1	
	Cement, pyroxylin	Flammable liquid	Flammable liquid	173.118	173.132	1 quart	15 gallons	1.2	1	
	Cement, roofing, liquid	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Cement, rubber	Flammable liquid	Flammable liquid	173.118	173.132	1 quart	15 gallons	1.2	1	
	Cesium metal	Flammable solid	Flammable solid and dangerous when wet	None	173.206	Forbidden	25 pounds	1.2	5	Segregation same as for flammable solids labeled Dangerous When Wet

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
•	Charcoal, activated	Flammable solid	Flammable solid	173.162	173.162	25 pounds	200 pounds	1.3	1.3	
	Charcoal briquettes or briquets	Flammable solid	Flammable solid	173.162	173.162	50 pounds	50 pounds	1.2	1.2	
	Charcoal screenings, made from "pinon" wood	Flammable solid	Flammable solid	173.162	173.162	25 pounds	200 pounds	1.2	1.2	
	Charcoal screenings, wet	Forbidden								
	Charcoal, shell	Flammable solid	Flammable solid	173.162	173.162	25 pounds	200 pounds	1.2	1.2	
	Charcoal, wet	Forbidden								
	Charcoal, wood, ground, crushed, granulated, or pulverized	Flammable solid	Flammable solid	173.162	173.162	25 pounds	200 pounds	1.2	1.2	
	Charcoal, wood, lump	Flammable solid	Flammable solid	173.162	173.162	50 pounds	50 pounds	1.2	1.2	
	Charcoal wood screenings, other than "pinon" wood screenings	Flammable solid	Flammable solid	None	173.162	Forbidden	Forbidden	1	1	
	Charged oil well jet perforating gun (total explosive contents in guns not exceeding 20 pounds per motor vehicle)	Class A explosive	Explosive A	None	173.53 173.80	Forbidden	Forbidden			Forbidden
	Charged oil well jet perforating gun (total explosive contents in guns not exceeding 20 pounds per motor vehicle)	Class C explosive	Explosive C	None	173.53 173.110	Forbidden	Forbidden			Forbidden
	Chemical ammunition explosive. See Ammunition, chemical, explosive									
	Chemical ammunition, nonexplosive (containing a Poison B material)	Poison B	Poison	173.345	173.350	Forbidden	35 gallons			See correct shipping name of applicable Poison B material for stowage, special handling, and special segregation requirements
	Chemical ammunition, nonexplosive (containing an irritating material)	Irritating material	Irritant	None	173.383	Forbidden	20 pounds			See correct shipping name of applicable irritant material for stowage, special handling, and special segregation requirements
	Chemical ammunition, nonexplosive (containing a poison A material)	Poison A	Poison gas	None	173.330	Forbidden	Forbidden			See correct shipping name of applicable Poison A material for stowage, special handling, and special segregation requirements
	Chemical kit	Corrosive material	Corrosive	173.286		1 quart	1 quart	1.3	1.3	
	Chlorate and borate mixture (containing more than 28% chlorate)	Oxidizer	Oxidizer	173.153	173.229	25 pounds	100 pounds	1.2	4	Stow away from ammonium compounds and away from powdered metals
	Chlorate and magnesium chloride mixture (containing more than 28% chlorate)	Oxidizer	Oxidizer	173.153	173.229	25 pounds	100 pounds	1.2	4	Stow away from ammonium com- pounds, and away from powdered metals
W	Chlorate explosive, dry. See High explosive									
	Chlorate, n.o.s.	Oxidizer	Oxidizer	173.153	173.163	25 pounds	100 pounds	1.2	4	Stow away from ammonium compounds and away from powdered metals
	Chlorate, n.o.s., wet	Oxidizer	Oxidizer	173.153	173.163	25 pounds	200 pounds	1.2	4	Stow away from ammonium compounds and away from powdered metals
	Chlorate of potash. See Potassium chlorate									
	Chlorate of soda. See Sodium chlorate									
	Chlorate powder. See High explosive									
	Chlordane, liquid	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Chloric acid. (see chlorine dioxide hydrate)									
	Chloride of phosphorus. See Phosphorus trichloride									
	Chloride of sulfur. See Sulfur chloride									
	Chlorinated lime (chloride of lime.) See Bleaching powder									
	Chlorine	Nonflamma- ble gas	Nonflamma- ble gas and Poison	None	173.304 173.314 173.315	Forbidden	Forbidden	1.2	5	Stow in a well-ventilated space. Stow away from organic materials
	Chlorine dioxide hydrate, frozen	Oxidizer	Oxidizer and Poison	None	173.237	Forbidden	Forbidden			Forbidden
	Chlorine trifluoride	Oxidizer	Oxidizer and Poison	None	173.246	Forbidden	100 pounds	1.3	5	Stow in well ventilated area away from organic material
	Chloroacetic acid, solid	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1.2	1.2	Keep dry
	Chloroacetic acid, liquid or solution. See Monochloroacetic acid, liquid or solution									
	Chloroacetophenone, gas, liquid, or solid (CN)	Irritating material	Irritant	None	173.382	Forbidden	75 pounds	1	5	
	Chloroacetyl chloride	Corrosive material	Corrosive	None	173.253	Forbidden	1 quart	1	5	Keep dry
	Chlorobenzene. See Chlorobenzol									
	Chlorobenzol	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1.2	

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
AW	p-Chlorobenzoyl peroxide	Organic peroxide	Organic peroxide	None	173.157 173.158	Forbidden	25 pounds	1	1	
	Chlorodinitrobenzene. See Dinitrochlorobenzene Chlorodinitrobenzol. See Dinitrochlorobenzol, solid Chloroform	ORM-A	None	173.505	173.630	10 gallons	35 gallons	1,2	1,2	Stow away from living quarters and foodstuffs
A	4-Chloro-o-toluidine hydrochloride	Poison B	Poison	None	173.362	Forbidden	1 quart	1,2	1,2	
	Chlorophenyltrichlorosilane	Corrosive material	Corrosive	None	173.280	Forbidden	10 gallons	1	1	Keep dry
A	Chloropicrin, absorbed	Poison B	Poison	None	173.357	Forbidden	Forbidden	1	5	Keep cool
	Chloropicrin and methyl chloride mixture	Poison A	Flammable gas and Poison gas	None	173.329	Forbidden	Forbidden	1	5	Keep cool
A	Chloropicrin and nonflammable, nonliquefied compressed gas mixture	Poison A	Nonflammable gas and Poison gas	None	173.329	Forbidden	Forbidden	1	5	Keep cool
	Chloropicrin, liquid	Poison B	Poison	None	173.357	Forbidden	Forbidden	1	5	Keep cool
A	Chloropicrin mixture (containing no compressed gas or poison A liquid)	Poison B	Poison	None	173.357	Forbidden	Forbidden	1	5	Keep cool
	Chloroplastic acid, solid	ORM-B	None	173.505	173.510 173.800	25 pounds	100 pounds	1,2	1,2	
A	2-Chloropropene	Flammable liquid	Flammable liquid	None	173.119	Forbidden	10 gallons	1,2	5	
	Chlorosulfonic acid	Corrosive material	Corrosive	173.244	173.254	1 quart	1 quart	1	1	Keep dry. Glass carboys not permitted on passenger vessels
A	Chlorosulfonic acid-sulfur trioxide mixture	Corrosive material	Corrosive	173.244	173.254	1 quart	1 quart	1	1	Keep dry. Glass carboys not permitted on passenger vessels
	Chromic acid mixture, dry	Oxidizer	Oxidizer	173.153	173.164	25 pounds	100 pounds	1,2	1,2	Stow away from foodstuffs
A	Chromic acid, solid	Oxidizer	Oxidizer	173.153	173.164	25 pounds	100 pounds	1,2	1,2	Stow away from foodstuffs. Stow separate from flammable liquids and solids
	Chromic acid solution	Corrosive material	Corrosive	173.244	173.287	1 quart	1 gallon	1	1	
A	Chromic anhydride. See Chromic acid, solid	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1,2	1,2	
	Chromic fluoride, solid	Corrosive material	Corrosive	173.244	173.245	1 quart	1 gallon	1,2	1,2	
A	Chromic fluoride solution	Corrosive material	Corrosive	173.244	173.245	1 quart	1 gallon	1,2	1,2	
	Chromic trioxide. See Chromic acid, solid	Corrosive material	Corrosive	173.244	173.245	1 quart	1 gallon	1,2	1,2	
A	Chromium oxychloride or Chromyl chloride	Corrosive material	Corrosive	None	173.247	Forbidden	1 gallon	1	1	Keep dry. Glass carboys not permitted on passenger vessels
	Cigar and cigarette lighter fluid. See Lighter fluid	Flammable gas	Flammable gas	173.21	173.308	21 ounces	25 pounds	1	1	Not permitted in nonventilated container
A	Cigarette lighter (or other similar ignition device)	Flammable liquid	Flammable liquid	173.21	173.118	Forbidden	Forbidden	1	1	Not permitted in nonventilated container
	Cigarette lighter (or other similar ignition device)	Class C explosive	Explosive C	None	173.111	50 pounds	150 pounds	1,2	1,2	
A	Cigarette load	Class C explosive	Explosive C	None	173.111	50 pounds	150 pounds	1,2	1,2	
	Cloud gas cylinder. See Chemical ammunition	Forbidden	Forbidden							
A	Coal briquettes, hot	Forbidden	Forbidden							
	Coal facings. See Coal ground bituminous, etc.	Flammable solid	Flammable solid	173.165		Forbidden	Forbidden	1	1	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
A	Coal gas. See Hydrocarbon gas, nonliquefied	Flammable solid	Flammable solid	173.165		Forbidden	Forbidden	1	1	
	Coal, ground bituminous, sea coal; coal facings, etc.	Flammable solid	Flammable solid	173.165		Forbidden	Forbidden	1	1	
A	Coal oil (export shipments only). See Kerosene	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
	Coal tar distillate	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
A	Coal tar distillate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,2	1	
	Coal tar dye, liquid (not otherwise specifically named in Sec. 172.101)	Corrosive material	Corrosive	173.244	173.245 173.249a	1 quart	10 gallons	1,2	1,2	
A	Coal tar light oil	Combustible liquid	None	173.118a				1,2	1,2	
	Coal tar light oil	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,2	1	
A	Coal tar naphtha	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
	Coal tar naphtha	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	

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§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pass- enger vessel	(c) Other requirements
	Coal tar naphtha	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Coal tar oil	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Coal tar oil	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1.2	
	Coating solution	Flammable liquid	Flammable- liquid	173.118	173.132	1 quart	15 gallons	1.2	1	
	Cobalt resinates, precipitated	Flammable solid	Flammable solid	None	173.166	Forbidden	125 pounds	1.2	1.2	
	Cocculus, solid (<i>fishberry</i>)	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
W	Coconut meal pellets containing at least 6% and not more than 13% moisture and not more than 10% residual fat content Coir. See Fibers	ORM-C	None	173.505	173.955			1.2	4	Keep dry
	Coke, hot	Forbidden								
	Collodion	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Collodium cotton, wet. See Nitrocellulose, wet									
	Cologne spirits (<i>alcohol</i>)	Flammable liquid	Flammable liquid	173.118	173.125	1 quart	10 gallons	1.2	1	
	Columbian spirits (<i>wine alcohol</i>)	Flammable liquid	Flammable liquid	173.118	173.125	1 quart	10 gallons	1.2	1	
	Combination fuse	Class C explosive	Explosive C	None	173.105	50 pounds	150 pounds	1.3	1.3	
	Combination primer	Class C explosive	Explosive C	None	173.107	50 pounds	150 pounds	1.3	5	
	Combustible liquid, n.o.s.	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Commercial shaped charge. See High explosive									
	Common fireworks. See Fireworks, common									
	Compound, cleaning, liquid	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Compound, cleaning, liquid	Corrosive material	Corrosive	173.244	173.245	1 quart	1 quart	1.2	1.2	
	Compound, cleaning, liquid	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Compound, cleaning, liquid (containing hydrochloric (muriatic) acid)	Corrosive material	Corrosive	173.244	173.263	1 quart	1 gallon	1	1	
	Compound, cleaning, liquid (containing hydrofluoric acid)	Corrosive material	Corrosive	173.244	173.256	1 quart	1 gallon	1	4	
	Compound, cleaning liquid (containing phosphoric acid, acetic acid, sodium or potassium hydroxide)	Corrosive material	Corrosive	173.244	173.245 173.249a	1 quart	1 quart	1.2	1.2	
	Compound, enamel	Flammable liquid	Flammable liquid	173.118	173.128	1 quart	55 gallons	1.2	1	
	Compound, lacquer, paint, or varnish removing, liquid	Corrosive material	Corrosive	173.244	173.245	1 quart	1 gallon	1.2	1.2	
	Compound, lacquer, paint, or varnish, removing, reducing, or thinning, liquid	Combustible liquid	None	173.118a				1.2	1.2	
	Compound, lacquer, paint, or varnish, removing, reducing, or thinning, liquid	Flammable liquid	Flammable liquid	173.118	173.128	1 quart	55 gallons	1.2	1	
	Compound, polishing, liquid	Flammable liquid	Flammable liquid	173.118	173.129	1 quart	55 gallons	1.2	1	
	Compound, rust preventing or Compound, rust removing	Corrosive material	Corrosive	173.244	173.245	1 quart	1 gallon	1.2	1.2	
	Compound, tree or weed killing, liquid	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Compound, tree or weed killing, liquid	Corrosive material	Corrosive	173.244	173.245	1 quart	1 quart	1.2	1.2	
	Compound, tree or weed killing, liquid	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Compound, tree or weed killing, liquid	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1.2	
	Compound, tree or weed killing, solid	Oxidizer	Oxidizer	173.153	173.154 173.229	25 pounds	100 pounds	1.2	1.2	
	Compound, vulcanizing, liquid	Corrosive material	Corrosive	173.244	173.245	1 quart	1 quart	1.2	1.2	
	Compound, vulcanizing, liquid	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Compound, water treatment, liquid. See Water treatment, liquid									
	Compressed gas, n.o.s.	Flammable gas	Flammable gas	173.306	173.302 173.304 173.305	Forbidden	300 pounds	1	4	

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§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
	Compressed gas, n.o.s.	Nonflamma- ble gas	Nonflamma- ble gas	173.306	173.302 173.304 173.305	150 pounds	300 pounds	1,2	1,2	
	Consumer commodity	ORM-D	None	None	173.510 173.1200	65 pounds gross	65 pounds gross			Not subject to requirements of Part 176
	<i>Container, reused or empty, must be classified for the hazardous material previously contained. See 173.28, 173.29</i>									
	Copper acetoarsenite, solid (emerald green, imperial green, King's green, must green, meadow green, mitis green, parrot green, Vienna green)	Poison B	Poison	173.364	173.367	50 pounds	200 pounds	1,2	1,2	
	Copper arsenite, solid (Scheele's green, cupric green, copper orpiment, Swedish green)	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1,2	1,2	
A	Copper chloride	ORM-B	None	173.505	173.510 173.800	25 pounds	100 pounds			
	Copper cyanide	Poison B	Poison	173.370		25 pounds	200 pounds	1,2	1,2	Stow away from acids
W	Copra	ORM-C	None	173.505	173.960			1,2	1,2	Segregation same as for flammable solids. Separate from flammable gases or liquids, oxidizing materials, or or- ganic peroxides
	<i>Copra pellets. See Coconut meal pellets</i>									
	Cordeau detonant fuse	Class C explosive	Explosive C	None	173.104	50 pounds	300 pounds	1,2	1,2	
	Corrosive battery fluid. See Electrolyte (acid), or Alkaline Corrosive battery fluid									
	Corrosive liquid, n.o.s.	Corrosive material	Corrosive	173.244	173.245 173.245a	1 quart	1 quart	1	4	
	Corrosive solid, n.o.s.	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1	4	
*	Cosmetics, n.o.s.	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
*	Cosmetics, n.o.s.	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,2	1	
*	Cosmetics, n.o.s.	Flammable solid	Flammable solid	173.153	173.154	25 pounds	100 pounds	1,2	1,2	
*	Cosmetics, n.o.s.	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1,2	1,2	
*	Cosmetics, n.o.s., liquid	Corrosive material	Corrosive	173.244	173.245	1 quart	1 quart	1,2	1,2	
*	Cosmetics, n.o.s., solid	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1,2	1,2	Keep dry
W	Cotton	ORM-C	None	173.505	173.965			1,2	1,2	Segregation same as for flammable solids. See 176.900 to 176.904
W	Cotton batting	ORM-C	None	173.505	173.970			1,2	1,2	Keep dry. Stow away from vegetable or animal oils. See 176.900 to 176.904
W	Cotton batting/dress. See Cotton batting <i>Cotton, burnt. See Burnt cotton</i>									
W	Cotton seed hull fiber or shavings, pulp, or cut lintens. See Cotton batting									
W	Cotton sweepings. See Cotton waste									
W	Cotton wadding. See Cotton batting									
W	Cotton waste	ORM-C	None	173.505	173.975			1,2	1,2	Keep dry. Stow away from vegetable or animal oils. See 176.900 to 176.904
	Cotton waste, oily (with more than 5% of animal or vegetable oil)	Flammable solid	Flammable solid	None	173.167	Forbid- den	Forbid- den	1,2	1,2	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Croosote, coal tar	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
	<i>Croosote oil. See Croosote, coal tar</i>									
	Crotonaldehyde	Flammable liquid	Flammable liquid and Poison	173.118	173.119	1 quart	1 gallon	1,2	1	
	Crotonic acid	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1,2	1,2	
	Crotonylene	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,3	4	
	Crude nitrogen fertilizer solution (more than 25.3 p.s.i.g.)	Nonflamma- ble gas	Nonflamma- ble gas	173.306	173.304 173.314	Forbid- den	300 pounds	1,3	1,3	
*	Crude oil, petroleum	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
*	Crude oil, petroleum	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,2	1	
	Cumene hydroperoxide	Organic peroxide	Organic peroxide	173.153	173.224	1 quart	1 quart	1,2	4	
	<i>Cupric cyanide. See Copper cyanide</i>									

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
	Cupriethylene-diamine solution	Corrosive material	Corrosive	173.244	173.249	1 quart	1 gallon	1.2	1.2	
	Cyanide or cyanide mixture, dry	Poison B	Poison	173.364	173.370	25 pounds	200 pounds	1.2	1.2	Keep dry. Stow away from acids
	Cyanogen bromide	Poison B	Poison	None	173.379	Forbidden	25 pounds	1	5	Shade from radiant heat. Segregation same as for corrosive materials
	Cyanogen chloride containing less than 0.9% water	Poison A	Nonflam- mable gas and Poison Gas	None	173.328	Forbidden	Forbidden	1	5	Shade from radiant heat
	Cyanogen gas	Poison A	Flammable gas and Poison Gas	None	173.328	Forbidden	Forbidden	1	5	
	Cyclohexane	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.3	4	
	Cyclohexanone peroxide, 50 to 85% peroxide	Organic peroxide	Organic peroxide	173.157	173.158	Forbidden	25 pounds	1	1	
	Cyclohexanone peroxide, not over 50% peroxide	Organic peroxide	Organic peroxide	173.153	173.154	2 pounds	25 pounds	1.2	1.2	
	Cyclohexanone peroxide and bis (1-hydroxy cyclohexyl) peroxide mixture. See appropriate cyclohexanone peroxide entry immediately preceding									
	Cyclohexenyl trichlorosilane	Corrosive material	Corrosive	None	173.280	Forbidden	10 gallons	1	1	Keep dry
	Cyclohexyl trichlorosilane	Corrosive material	Corrosive	None	173.280	Forbidden	10 gallons	1	1	Keep dry
	Cyclopentane	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.3	4	
	Cyclopentane, methyl	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.3	4	
	Cyclopropane	Flammable gas	Flammable gas	173.306	173.304	Forbidden	300 pounds	1.2	1	
	Cyclotrimethylenetrinitramine, desensitized. See High explosive									
	Cyclotrimethylenetrinitramine, wet with not less than 10% water. See High explosive									
	Cylinder, empty, including test tanks, must be classified for the hazardous material previously contained in cylinder. See 173.29									
	2,4-D. See 2,4-Dichlorophenoxyacetic acid									
A	DDT or Dichlorodiphenyltrichloroethane	ORM-A	None	173.505	173.510	No limit	No limit			
	Dead oil. See Creosote, coal tar									
	Decaborane	Flammable solid	Flammable solid and Poison	None	173.236	Forbidden	25 pounds	1.2	1.2	
	Decahydronaphthalene	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Decalin. See Decahydronaphthalene									
	Delay electric igniter	Class C explosive	Explosive C	None	173.106	50 pounds	150 pounds	1.3	1.3	
	Denatured alcohol. See Alcohol, n.o.s.									
	Depth bomb. See Explosive bomb									
	Detonating fuze, Class A explosive, with or without radioactive components	Class A explosive	Explosive A	None	173.69	Forbidden	Forbidden	6	5	
	Detonating fuze, Class C explosive	Class C explosive	Explosive C	None	173.113	50 pounds	150 pounds	1.3	1.3	
	Detonating primer	Class A explosive	Explosive A	None	173.68	Forbidden	Forbidden	6	5	
	Diacetone alcohol	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Diacetyl	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
A	Diazinon	ORM-A	None	173.505	173.510	No limit	No limit			
	Diazodinitrophenol. See Initiating explosive									
A	Dibromodifluoromethane	ORM-A	None	173.505	173.510 173.605	10 gallons	55 gallons			
W	1,2-Dibromoethane. See Ethylene dibromide									
	Dichloroacetic acid	Corrosive material	Corrosive	173.244	173.245	1 quart	1 quart	1.2	1.2	Glass carboy in hampers not permitted under deck
	Dichloroacetyl chloride	Corrosive material	Corrosive	173.244	173.247	1 quart	1 gallon	1	4	Keep dry
A	Dichlorobenzene, ortho, liquid	ORM-A	None	173.505	173.510	No limit	No limit			
A	Dichlorobenzene, para, solid	ORM-A	None	173.505	173.510	No limit	No limit			

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
A	Dichlorobutene	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1.2	
	Dichlorodifluoroethylene	ORM-A	None	173.505	173.510 173.605	10 gallons	55 gallons			
	Dichlorodifluoromethane	Nonflam- mable gas	Nonflam- mable gas	173.306	173.304 173.314 173.315	150 pounds	300 pounds	1.2	1.2	
	Dichlorodifluoromethane and difluoroethane mixture (constant boiling mixture)	Nonflam- mable gas	Nonflam- mable gas	173.306	173.304 173.314 173.315	150 pounds	300 pounds	1.2	1.2	
	Dichlorodifluoromethane- dichlorotetrafluoroethane mixture	Nonflam- mable gas	Nonflam- mable gas	173.306	173.304 173.314 173.315	150 pounds	300 pounds	1.2	1.2	
	Dichlorodifluoromethane- monochlorodifluoroethane mixture	Nonflam- mable gas	Nonflam- mable gas	173.306	173.304 173.314 173.315	150 pounds	300 pounds	1.2	1.2	
	Dichlorodifluoromethane- trichloromonofluoroethane mixture	Nonflam- mable gas	Nonflam- mable gas	173.306	173.304 173.314 173.315	150 pounds	300 pounds	1.2	1.2	
	Dichlorodifluoromethane- trichloromonofluoroethane- monochloro difluoroethane mixture	Nonflam- mable gas	Nonflam- mable gas	173.306	173.304 173.314 173.315	150 pounds	300 pounds	1.2	1.2	
	Dichlorodifluoromethane- trichlorotrifluoroethane mixture	Nonflam- mable gas	Nonflam- mable gas	173.306	173.304 173.314 173.315	150 pounds	300 pounds	1.2	1.2	
	Dichlorodiphenyltrichloroethane. See DDT									
A	Dichloroethylene	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Dichloroisopropyl ether	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
	Dichloromethane or methylene chloride	ORM-A	None	173.505	173.510 173.605	10 gallons	55 gallons			
	Dichloropentane	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1.2	
	2,4-Dichlorophenoxyacetic acid	ORM-A	None	173.505	173.510					
	Dichlorophenyltrichlorosilane	Corrosive material	Corrosive	None	173.280	Forbid- den	10 gallons	1	1	Keep dry
	Dichloropropene and propylene dichloride mixture	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
	Dicumyl peroxide 50% solution	Organic peroxide	Organic peroxide	173.153	173.224	1 quart	1 quart	1.2	4	
	Dicumyl peroxide, dry	Organic peroxide	Organic peroxide	173.153	173.154	2 pounds	25 pounds	1.2	1.2	
	Dieldrin	ORM-A	None	173.505	173.510	No limit	No limit			
A	Diesel Fuel See Fuel oil									
	Diethylamine	Flammable liquid	Flammable liquid	173.118	173.119	Forbid- den	5 pints	1.3	4	
	Diethyl cellosolve. See Ethylene glycol diethyl ether									
	Diethyl dichlorosilane	Flammable liquid	Flammable liquid	None	173.135	Forbid- den	10 gallons	1	1	Keep dry. Segregation same as for cor- rosives
	Diethylene glycol dinitrate See 173.51	Forbidden								
	Di-(2-ethylhexyl) phosphoric acid	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
	Diethyl ketone	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	1,1-Difluoro 1-chloroethane. See Difluoromonochloroethane									
	Difluoroethane	Flammable gas	Flammable gas	173.306	173.304 173.314 173.315	Forbid- den	300 pounds	1.2	1	
	Difluoromonochloroethane (1,1-difluoro 1-chloroethane)	Flammable gas	Flammable gas	173.306	173.304 173.314 173.315	Forbid- den	300 pounds	1.2	1	
A	Difluorophosphoric acid, anhydrous	Corrosive material	Corrosive	None	173.275	Forbid- den	1 gallon	1.2	1.2	
	Dihydropyran	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	4	
	Diisobutyl ketone	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Diisooctyl acid phosphate	Corrosive material	Corrosive	173.244	173.296	1 quart	1 quart	1.2	1.2	Glass carboys in hampers not permitted under deck
	Diisopropylamine	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Diisopropylbenzene hydroperoxide solution, not over 60% peroxide	Organic peroxide	Organic peroxide	173.153	173.224	1 quart	1 quart	1.2	4	
	Diisopropylethanolamine	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
	Diisopropylether	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.3	4	

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§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Passenger vessel	(c) Other requirements
	Dimethylamine, anhydrous	Flammable gas	Flammable gas	173.306	173.304 173.314 173.315	Forbidden	300 pounds	1.2	4	
	Dimethylamine, aqueous solution	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	2,3-Dimethylbutane	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.3	4	
	Dimethyl carbonate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	1,4-Dimethylcyclohexane	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Dimethyldichlorosilane	Flammable liquid	Flammable liquid	None	173.135	Forbidden	5 pints	1.2	1	
	Dimethyl ether	Flammable gas	Flammable gas	173.306	173.304 173.314 173.315	Forbidden	300 pounds	1.2	1	
	Dimethylhexane dihydroperoxide, dry	Forbidden								
	Dimethylhexane dihydroperoxide, (with 30% or more water)	Organic peroxide	Organic peroxide	None	173.157	Forbidden	25 pounds	1	1	
	Dimethylhydrazine, unsymmetrical (UDMH)	Flammable liquid	Flammable liquid and Poison	None	173.145	Forbidden	5 pints	1.2	1	Keep dry. Separate from corrosive and oxidizing materials, and organic perox- ides
	Dimethyl sulfate	Corrosive material	Corrosive	None	173.235	Forbidden	1 quart	1	5	Keep cool
	Dimethyl sulfide	Flammable liquid	Flammable liquid	None	173.119	Forbidden	10 gallons	1.2	5	
	Dinitrobenzene, solid, or dinitrobenzol, solid	Poison B	Poison	173.364	173.371	50 pounds	200 pounds	1.2	1.2	
	Dinitrobenzene solution	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1.2	
	Dinitrochlorobenzol, solid or Dinitro chlorobenzene	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
A	Dinitrocyclohexylphenol	ORM-A	None	173.505	173.510	No limit	No limit			
	Dinitrophenol solution	Poison B	Poison	173.345	173.362a	1 quart	65 pounds	1.2	1.2	Stow away from heavy metals and their compounds. If flash point is 141 DEG F or less segregation same as for flamma- ble liquids
	Dioxane	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Dioxolane	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Diphenylaminetrichloroarsine (DM)	Irritating material	Irritant	None	173.382	Forbidden	75 pounds	1	5	
	Diphenyl dichlorosilane	Corrosive material	Corrosive	None	173.280	Forbidden	10 gallons	1	1	Keep dry
	Diphenyl methyl bromide, solid	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1	4	
	Diphenyl methyl bromide solution	Corrosive material	Corrosive	173.244	173.247	1 quart	1 gallon	1.2	1.2	
	Diphazene. See Phazogon									
	Disinfectant, liquid, n.o.s.	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Disinfectant, liquid	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1	4	
	Disinfectant, liquid	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1	
	Disinfectant, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1	
	Dispersant Gas or Refrigerant Gas. See 173.314 NOTE 13 and 173.315 NOTE 9									
	Distillate (petroleum or coal tar)	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Divinyl ether	Flammable liquid	Flammable liquid	None	173.119	Forbidden	10 gallons	1.3	5	
	Dodecyl trichlorosilane	Corrosive material	Corrosive	None	173.280	Forbidden	10 gallons	1	1	Keep dry
	Dressing, leather	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Dressing, leather	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Drier. See Paint drier, liquid									
	Drill cartridge									
	Drugs, n.o.s.	Combustible liquid	None	173.55	173.118a	None	No limit	No limit	1.2	1.2
	Drugs, n.o.s.	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Drugs, n.o.s.	Flammable solid	Flammable solid	173.133	173.154	25 pounds	100 pounds	1.2	1.2	
	Drugs, n.o.s.	Oxidizer	Oxidizer	173.133	173.154	25 pounds	100 pounds	1.2	1.2	
	Drugs, n.o.s., liquid	Corrosive material	Corrosive	173.244	173.245	1 quart	1 quart	1.2	1.2	

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§172.101 Hazardous Materials Table (cont'd)

(1) * W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
•	Drugs, n.o.s., liquid	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.3	1	Keep dry
	Drugs, n.o.s., solid	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1.2	1.2	
	Drugs, n.o.s., solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.3	1.3	
	<i>Drums, empty, must be classed for the hazardous material previously contained in drum. See 173.29</i>									
	Dry ice. See Carbon dioxide, solid									
	Dusts, by-product, poisonous. See Arsenical dust									
	Dye intermediate, liquid	Corrosive material	Corrosive	173.244	173.245 173.249a	1 quart	10 gallons	1.2	1.2	Stow away from foodstuffs and living quarters
	Dynamite. See High explosive									
	Electric blasting caps. See Blasting caps, electric									
	Electric squib	Class C explosive	Explosive C	None	173.106	50 pounds	150 pounds	1.3	1.3	Glass carboys in hampers not permitted under deck
	Electric storage battery, wet. See Battery, electric storage, wet									
	Electrolyte (acid), battery fluid (not over 47% acid)	Corrosive material	Corrosive	173.244	173.257	1 quart	5 gallons	1.2	1.2	
	Electrolyte (acid), or alkaline (corrosive) battery fluid packed with battery charger, radio current supply device, or electronic equipment and actuating device	Corrosive material	Corrosive	None	173.259	Forbidden	5 pints	1.2	1.2	Not permitted in unventilated containers
	Electrolyte (acid), or alkaline (corrosive) battery fluid packed with dry-storage battery	Corrosive material	Corrosive	None	173.258	Forbidden	5 pints	1.2	1.2	
	Empty cartridge bag with black powder igniter	Class C explosive	Explosive C	None	173.106	50 pounds	150 pounds	1.3	1.3	
	Empty cartridge case, primed	Class C explosive	Explosive C	None	173.107	50 pounds	150 pounds	1.3	1.3	Not permitted in unventilated containers
	Enamel. See Paint, enamel, lacquer, etc.									
	Engine, internal combustion			173.120				1.2	1.2	
	Engine starting fluid	Flammable gas	Flammable gas	None	173.304	Forbidden	60 pounds	1.2	5	Keep dry
	Eradicator, paint or grease, liquid	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Etching acid, liquid, n.o.s.	Corrosive material	Corrosive	None	173.299	Forbidden	10 pounds	1	5	
	Ethane	Flammable gas	Flammable gas	173.306	173.304	Forbidden	300 pounds	1.2	4	Segregation same as for flammable gases
	Ether (ethyl)	Flammable liquid	Flammable liquid	None	173.119	Forbidden	10 gallons	1.3	5	
	Ether, Ethyl. See Ether									
	Ethyl acetate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	Keep dry
	Ethyl acrylate, inhibited	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Ethyl alcohol. See Alcohol, n.o.s.									
	Ethyl aldehyde. See Acetaldehyde									
	Ethyl benzene	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	Segregation same as for flammable gases
	Ethyl borate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Ethyl butyl acetate	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Ethyl butyl ether	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	Segregation same as for flammable gases
	Ethyl butyraldehyde	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Ethyl butyrate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1.2	
	Ethyl chloride	Flammable liquid	Flammable liquid	None	173.123	Forbidden	173.123	1.2	1	Segregation same as for flammable gases
	Ethyl chloroacetate	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Ethyl chloroformate (chlorocarbonate)	Flammable liquid	Flammable liquid and Poison	None	173.288	Forbidden	5 pints	1.2	1	
	Ethyl chlorothioformate	Corrosive material	Corrosive	173.244	173.245 173.245a	1 quart	1 quart	1.2	1	Segregation same as for flammable gases
	Ethyl crotonate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Ethyl dichlorosilane	Flammable liquid	Flammable liquid	None	173.135	Forbidden	5 pints	1.2	1	

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§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railroad	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pass- enger vessel	(c) Other requirements
AW	Ethylene	Flammable gas	Flammable gas	173.306	173.304	Forbid- den	300 pounds	1,2	4	Segregation same as for flammable liquids
	Ethylene chlorohydrin	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1,2	1	
	Ethylene dibromide (1,2-dibromethane)	ORM-A	None	173.505	173.620	1 quart	55 gallons	1,2	1,2	Stow away from living quarters
	Ethylene dichloride	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,2	1	
	Ethylene glycol diethyl ether (<i>diethyl "Cellasolve"</i>)	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
	Ethylene glycol monomethyl ether (<i>"Cellasolve"</i>)	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
	Ethylene glycol monomethyl ether acetate (<i>"Cellasolve acetate"</i>)	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
	Ethylene glycol monomethyl ether (<i>methoxy "Cellasolve"</i>)	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
	Ethylene glycol monomethyl ether acetate (<i>methoxy "Cellasolve acetate"</i>)	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
	Ethylene imine, inhibited	Flammable liquid	Flammable liquid and Poison	None	173.139	Forbid- den	5 pints	1,2	1	
	Ethylene oxide	Flammable liquid	Flammable liquid	None	173.124	Forbid- den	173.124	1,2	1	Segregation same as for flammable gases
	Ethyl ether. See Ether									
	Ethyl formate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,3	4	
	Ethylhexachlorohydrate	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
	Ethyl lactate	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
	Ethyl mercaptan	Flammable liquid	Flammable liquid	None	173.141	Forbid- den	10 gallons	1,2	1	
	Ethyl methyl ether	Flammable liquid	Flammable liquid	None	173.119	Forbid- den	10 gallons	1,3	1	Segregation same as for flammable gases
	Ethylmethyl ketone	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,2	1	
	Ethyl nitrate (<i>nitric ether</i>)	Flammable liquid	Flammable liquid	173.118	173.119	Forbid- den	Forbid- den	1,2	1	
	Ethyl nitrite (<i>nitrous ether</i>)	Flammable liquid	Flammable liquid	None	173.119	Forbid- den	Forbid- den	1,3	5	
	Ethyl phenyl dichlorosilane	Corrosive material	Corrosive	None	173.280	Forbid- den	10 gallons	1	5	
	Ethyl phosphonothioic dichloride, anhydrous	Corrosive material	Corrosive	173.244	173.245 173.245a	1 quart	1 quart	1	4	
	Ethyl phosphorous dichloride, anhydrous	Corrosive material	Corrosive	173.244	173.245 173.245a	1 quart	1 quart	1	4	
	Ethyl phosphorodichloridate	Corrosive material	Corrosive	173.244	173.245 173.245a	1 quart	1 quart	1	4	
	Ethyl propionate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,2	1	
	Ethyl silicate (<i>tetra ethyl ortho silicate</i>)	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
	Ethyl trichlorosilane	Flammable liquid	Flammable liquid	None	173.135	Forbid- den	5 pints	1,2	1	
	Etiologic agent, n.o.s.	Etiologic agent	Etiologic agent	173.386	173.387	173.386	4 liters			
W	Excelsior (shredded wood) when dry, clear, and free from oil	ORM-C	None	173.505	173.980			1,3	1,3	Not permitted except under specific conditions approved by the Department Stow away from organic, corrosive, or oxidizing materials
W	Exothermic ferromanganese. See Exothermic ferrocchrome	ORM-C	None	173.505	173.985			1	1	
W	Exothermic ferrosilicon. See Exothermic ferrocchrome									
W	Explosive auto alarm	Class C explosive	Explosive C	None	173.111	50 pounds	150 pounds	1,2	1,2	
	Explosive bomb	Class A explosive	Explosive A	None	173.56	Forbid- den	Forbid- den	1,2	5	Magazine storage authorized. No other cargo may be stowed in the same hold with these items
	Explosive cable cutter	Class C explosive	Explosive C	None	173.102	50 pounds	150 pounds	1,3	1,3	
	Explosive mine	Class A explosive	Explosive A	None	173.56	Forbid- den	Forbid- den	1,2	5	Magazine storage authorized. No other cargo may be stowed in the same hold with this material
	Explosive, new approval, and evaluation See 173.86									
	Explosive power device, Class B	Class B explosive	Explosive B	None	173.94	Forbid- den	150 pounds	1,2	5	
	Explosive power device, Class C	Class C explosive	Explosive C	None	173.102	50 pounds	150 pounds	1,3	1,3	

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§172.101 Hazardous Materials Table (cont'd)

Warning. Not subject to requirements of										
(1) NA W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel		(c) Other requirements
								(a)	(b)	
	Explosive projectile	Class A explosive	Explosive A	None	173.56	Forbidden	Forbidden	1.2	5	Magazine storage authorized. No other cargo may be stowed in the same hold with this material
	Explosive release device	Class C explosive	Explosive C	None	173.102	50 pounds	150 pounds	1.3	1.3	
	Explosive rivet	Class C explosive	Explosive C	None	173.100	50 pounds	150 pounds	1.2	1.2	
	Explosive, sample for laboratory examination				173.86	Forbidden	173.86			
	Explosive torpedo	Class A explosive	Explosive A	None	173.56	Forbidden	Forbidden	1.2	3	Magazine storage authorized. No other cargo may be stowed in the same hold with this material
	Extract, liquid, flavoring	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Fabric with animal or vegetable oil. See Fibers or fabric containing not more than 5% animal or vegetable fat									
AW	Food, wet, mixed	ORM-C	None	173.505	173.990	Forbidden	Forbidden	3	3	Stow in cool, dry, well ventilated compartment. Do not stow bags over tie tens high without flooring off. Do not overstow
W	Felt, waste. See Cotton waste									
	Felt, waste, wet. See Waste wool, wet									
	Ferric arsenate, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Ferric arsenite, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
A	Ferric chloride, solid, anhydrous	ORM-B	None	173.505	173.510	25 pounds	100 pounds			
	Ferric chloride solution	Corrosive material	Corrosive	173.244	173.245 173.245a	1 quart	10 quarts	1.2	1.2	
W	Ferrophosphorus	ORM-A	None	173.505	173.635			1.2	1.2	Keep dry. Stow away from living quar- ters
AW	Ferrosilicon, containing 30% or more but not more than 70% silicon	ORM-A	None	173.505	173.510 173.645	Forbidden	25 pounds	1.2	1.2	Keep dry. Stow away from living quar- ters. Segregation same as for flammable solids labeled Dangerous When Wet
	Ferrous arsenate (from arsenate), solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Fertilizer ammoniating solution containing free ammonia (more than 25.3 p.p.t.g.)	Nonflamma- ble gas	Nonflamma- ble gas	173.306	173.304 173.314	Forbidden	300 pounds	1.2	4	
W	Fertilizer, tankage. See Garbage, tankage									
	Fibers (jute, hemp, flax, sisal, coir, kapok, and similar vegetable fibers)	ORM-C	None	173.505	173.965			1.2	1.2	Stow away from animal or vegetable solids. Segregation same as for flammable solids
	Fibers, burnt	Flammable solid	Flammable solid	None	173.169	Forbidden	Forbidden	1.2	1.2	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Fibers or fabric, containing not more than 5% animal or vegetable oil	Flammable solid	Flammable solid	None	173.170	Forbidden	Forbidden	1.2	1.2	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Film (nitrocellulose)	Flammable solid	Flammable solid	None	173.177	50 pounds	200 pounds	1.3	1.3	Stow away from other flammable cargo or substances
	Film, photographic, (including scrap film), safety, nonflammable, or slow									
	this subchapter									
	Firecracker. See Fireworks, common or special									
	Firecracker salute. See Fireworks, common or special									
	Fire extinguisher	Nonflamma- ble gas	Nonflamma- ble gas	173.306		150 pounds	300 pounds	1.2	1.2	
	Fire extinguisher charge containing not more than 50 grains of propellant explosive per unit. Not subject to requirements of this subchapter									
	Fire extinguisher charge containing sulfuric acid	Corrosive material	Corrosive	173.261		1 quart	1 gallon	1.2	1.2	
	Fireworks, common	Class C explosive	Explosive C	None	173.100 173.108	50 pounds	200 pounds	1.3	1.3	Passenger vessels in metal lockers only
	Fireworks, exhibition display piece. See Fireworks, special									
	Fireworks, special	Class B explosive	Explosive B	None	173.88 173.91	Forbidden	200 pounds	3	3	Passenger vessels in metal lockers only. Toy torpedoes must not be packed with other special fireworks

§172.101 Hazardous Materials Table (cont'd)

(1) W/A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger-carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Passenger vessel	(c) Other requirements
W	Fish meal or fish scrap containing 6% to 12% water	ORM-C	None	173.505	173.995			1.2	1.2	Segregation same as for flammable solids. Separate from flammable gases or liquids, oxidizing materials, or organic peroxides. <i>Use double strip stowage</i> for cargo 6-12 percent moisture containing not more than 12 percent fat. <i>Use single strip stowage</i> for cargo 6-12 percent moisture containing 12-15 percent fat.
	Fish meal or fish scrap containing less than 6% or more than 12% water	Flammable solid	Flammable solid	None	173.171	Forbidden	Forbidden	1.2	1.2	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides.
	Fissile radioactive material. See Radioactive material, fissile	Corrosive material	Corrosive	173.244	173.291	1 quart	10 gallons	1.2	1.2	
	Flame retardant compound liquid									
	Flammable Gas n.o.s. See Compressed gas, n.o.s.									
	Flammable liquid, n.o.s.	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Flammable solid, n.o.s.	Flammable solid	Flammable solid	173.153	173.154	25 pounds	25 pounds	1.2	1.2	
	Flare. See Fireworks, common									
	Flare, airplane. See Fireworks, special									
	Flash cartridge. See Fireworks, special or Low explosives									
	Flash cracker. See Fireworks, common or special									
	Flash powder. See Fireworks, special or Low explosives									
	Flax. See Fibers									
	Flexible linear shaped charge, metal clad	Class C explosive	Explosive C	None	173.104	50 pounds	300 pounds	1.3	1.3	
AW	Flowers of sulfur. See Sulfur	Poison B	Poison	173.364	173.368	50 pounds	200 pounds	1.2	1.2	
	Fluo dust, poisonous									
	Fluoboric acid	Corrosive material	Corrosive	173.244	173.283	1 quart	1 gallon	1.2	1.2	
	Fluoric acid. See Hydrofluoric acid									
	Fluorine	Nonflammable gas	Poison and Oxidizer	None	173.302	Forbidden	Forbidden	1	5	Stow in well ventilated space away from organic materials
	Fluorophosphoric acid, anhydrous. See Monofluorophosphoric acid, anhydrous									
	Fluorosilicic acid. See Hydrofluosilicic acid									
	Fluorosulfonic acid or Fluosulfonic acid	Corrosive material	Corrosive	None	173.274	Forbidden	1 gallon	1	5	Keep dry
	Formaldehyde, or formalin solution (in containers of 110 gallons or less)	ORM-A	None	173.505	173.510	10 gallons	55 gallons	1.2	4	
	Formaldehyde, or formalin solution (in containers over 110 gallons)	Combustible liquid	None	173.118a	None	10 gallons	55 gallons	1.2	1.2	
	Formalin. See Formaldehyde solution									
	Formic acid	Corrosive material	Corrosive	173.244	173.245 173.289	1 quart	5 gallons	1.2	1.2	Glass carboys in bampers not permitted under deck
	Formic acid solution	Corrosive material	Corrosive	173.244	173.245 173.289	1 quart	5 gallons	1.2	1.2	
	Fuel, aviation, turbine engine	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Fuel oil	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Fuel oil, Diesel. See Fuel oil									
	Fuel oil, No. 1, 2, 4, 5 or 6	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Fulminate of mercury, dry	Forbidden								
	Fulminate of mercury, wet. See Initiating explosive									
	Fumaryl chloride	Corrosive material	Corrosive	173.244	173.245	1 quart	1 quart	1	1	Glass carboys not permitted
F	Fumigant				173.152	No limit	No limit	1.2	1	
	Furfural	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1	
	Fuscc (railway or highway)	Flammable solid	Flammable solid	None	173.154a	50 pounds	200 pounds	1.3	1.3	
	Fuse igniter	Class C explosive	Explosive C	None	173.106	50 pounds	150 pounds	1.3	1.3	
	Fuse, instantaneous	Class C explosive	Explosive C	173.100		50 pounds	150 pounds	1.2	1.2	
	Fuse lighter	Class C explosive	Explosive C	None	173.106	50 pounds	150 pounds	1.3	1.3	

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§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Passenger vessel	(c) Other requirements
	Fuel oil	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Fuze, mild detonating, metal clad	Class C explosive	Explosive C	None	173.104	50 pounds	300 pounds	1.2	1.2	
	Fuze, safety	Class C explosive	Explosive C	173.100		50 pounds	300 pounds	1.2	1.2	
	Fuze, combination	Class C explosive	Explosive C	None	173.105	50 pounds	150 pounds	1.3	1.3	
	Fuze, detonating	Class A explosive	Explosive A	None	173.69	Forbidden	Forbidden	6	5	
	Fuze, detonating, Class C explosive	Class C explosive	Explosive C	None	173.113	50 pounds	150 pounds	1.3	1.3	
	Fuze, detonating, radioactive	Class A explosive	Explosive A	None	173.69	Forbidden	Forbidden	6	5	
	Fuze, percussion	Class C explosive	Explosive C	None	173.105	50 pounds	150 pounds	1.3	1.3	
	Fuze, time	Class C explosive	Explosive C	None	173.105	50 pounds	150 pounds	1.3	1.3	
	Fuze, tracer	Class C explosive	Explosive C	None	173.105	50 pounds	150 pounds	1.3	1.3	
	Gallium metal, liquid	ORM-B	None	None	173.861	Forbidden	40 pounds	1	5	None
	Gallium metal, solid	ORM-B	None	None	173.862	Forbidden	40 pounds	1.3	1	Shade from radiant heat
W	Garbage tankage containing 8% or more water	ORM-C	None	173.505	173.1000			1.2	1.2	
	Garbage tankage, containing less than 8% water	Flammable solid	Flammable solid	None	173.209	Forbidden	Forbidden	1	1	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Gas cylinder, empty. See Cylinder, empty									
	Gas drips, hydrocarbon	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Gas drips, hydrocarbon	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Gas identification set	Poison A	Poison gas	None	173.331	Forbidden	Forbidden	1	5	
	Gas identification set	Irritating material	Irritant	None	173.331	Forbidden	Forbidden	1	5	
	Gas mine. See Explosive mine									
	Gas oil. See Fuel oil									
	Gasoline (including casing head and natural)	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	4	
	Gelatin Dynamite. See High explosive									
	Germane	Poison A	Poison gas and Flammable gas	None	173.328	Forbidden	Forbidden	1	5	Avoid
	Grenade, empty, primed	Class C explosive	Explosive C	None	173.107	50 pounds	150 pounds	1.3	1.3	
	Grenade, hand or rifle, explosive (with or without gas, smoke, or incendiary material)	Class A explosive	Explosive A	None	173.56	Forbidden	Forbidden	1.2	5	No other cargo may be stored in the same hold with these items.
	Grenade, tear gas	Irritating material	Irritant	None	173.385	Forbidden	75 pounds	1.2	1	
	Grenade without bursting charge: With incendiary material (Special fireworks)	Class B explosive	Explosive B	173.91		Forbidden	Forbidden	3	3	Passenger vessels in metal lockers only
	Grenade without bursting charge: With smoke charge (Smoke grenade)	Class C explosive	Explosive C	173.108		50 pounds	150 pounds	1.3	1.3	
	Grenade without bursting charge: With Poison A gas charge	Poison A	Poison gas	173.330		Forbidden	Forbidden			See correct shipping name of applicable Poison A material for storage, special handling, and special segregation requirements
	Grenade without bursting charge: With Poison B charge	Poison B	Poison	173.350		Forbidden	Forbidden			See correct shipping name of applicable Poison B material for storage, special handling, and special segregation requirements
	Guanylido nitrate	Oxidizer	Oxidizer	173.153	173.182	25 pounds	100 pounds	1.2	1.2	Separate from Nitro-compounds, chlorates, and acids
	Guanyl nitrosamine guanylidene hydrazine. See Initiating explosive									
	Guanyl nitrosamine guanyl tetrazene. See Initiating explosive									
	Guided missile, without warhead. See Rocket motor, Class A explosive or Rocket motor, class B explosive									
	Guided missile with warhead. See Rocket ammunition with explosive, flammable, gas, incendiary, or smoke projectile									
	Guncotton. See High explosive									

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§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
	Hafnium metal, dry (See Note 3, Sec. 173.214)	Flammable solid	Flammable solid	None	173.214	Forbidden	75 pounds	1	5	
	Hafnium metal, wet	Flammable solid	Flammable solid	None	173.214	Forbidden	150 pounds	1.2	5	
	Hair, wet	Flammable solid	Flammable solid	None	173.172	Forbidden	Forbidden	1.2	5	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Hand signal device	Class C explosive	Explosive C	None	173.108	50 pounds	200 pounds	1.2	1.2	
W	Hay	ORM-C	None	173.505	173.1005			1.2	1.2	Segregation same as for flammable solids. Stow away from animal or vegetable oils Forbidden for water shipment
W	Hay or straw (loose, wet, or damp)									
	Heater for refrigerator car, liquid fuel type (containing fuel)	Flammable liquid	Flammable liquid	173.146		Forbidden	Forbidden	1.2	1	
	Helium	Nonflammable gas	Nonflammable gas	173.306	173.302 173.314	150 pounds	300 pounds	1.2	1.2	
	Helium-oxygen mixture	Nonflammable gas	Nonflammable gas	173.306	173.302	150 pounds	300 pounds	1.2	1.2	
	Heptane	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
W	Hessian. See Burlap cloth									
W	Hexachloroethane	ORM-A	None	173.505	173.650			1.2	1.2	
	Hexadecyltrichlorosilane	Corrosive material	Corrosive	None	173.280	Forbidden	10 gallons	1	1	Keep dry
	HexaGcne	Flammable liquid	Flammable liquid	None	173.119	Forbidden	10 gallons	1.2	5	
	Hexaethyl tetraphosphate and compressed gas mixture	Poison A	Poison gas	None	173.334	Forbidden	Forbidden	1	5	Shade from radiant heat
	Hexaethyl tetraphosphate, liquid	Poison B	Poison	None	173.358	Forbidden	1 quart	1	4	
	Hexaethyl tetraphosphate mixture, dry (containing more than 2% hexaethyl tetraphosphate)	Poison B	Poison	None	173.377	Forbidden	200 pounds	1.2	5	
	Hexaethyl tetraphosphate mixture, dry (containing not more than 2% hexaethyl tetraphosphate)	Poison B	Poison	173.377	173.377	50 pounds	200 pounds	1.2	4	
	Hexaethyl tetraphosphate mixture, liquid (containing more than 25% hexaethyl tetraphosphate)	Poison B	Poison	None	173.359	Forbidden	1 quart	1.2	5	
	Hexaethyl tetraphosphate mixture, liquid (containing not more than 25% hexaethyl tetraphosphate)	Poison B	Poison	173.359	173.359	1 quart	1 quart	1.2	4	
	Hexafluorophosphoric acid	Corrosive material	Corrosive	None	173.275	Forbidden	1 gallon	1.2	1.2	
	Hexafluoropropylene	Nonflammable gas	Nonflammable gas	173.306	173.304 173.314 173.315	150 pounds	300 pounds	1	4	
	Hexaldehyde	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1.2	
	Hexamethylene diamine, solid	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1.2	1.2	
	Hexamethylene diamine solution	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
	Hexamethylene imine	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
	Hexano	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	4	
	Hexanoic acid	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
	Hexyltrichlorosilane	Corrosive material	Corrosive	None	173.280	Forbidden	10 gallons	1	1	Keep dry
	High explosive	Class A explosive	Explosive A	173.65	173.61 to 173.82	Forbidden	Forbidden	6	5	
	High explosive, liquid	Class A explosive	Explosive A	None	173.62	Forbidden	Forbidden	6	5	
	Hydraulic accumulator. See Accumulator, pressurized									
	Hydrazine, anhydrous	Flammable liquid	Flammable liquid and Poison	None	173.276	Forbidden	5 pints	1	5	Segregation same as for corrosives
	Hydrazine, aqueous solution	Corrosive material	Corrosive	None	173.276	Forbidden	5 pints	1	5	
	Hydriodic acid	Corrosive material	Corrosive	173.244	173.245	1 quart	1 gallon	1	1	Glass carboys not permitted on passenger vessel
	Hydrobromic acid, anhydrous. See Hydrogen bromide									
	Hydrobromic acid, more than 49% strength	Corrosive material	Corrosive	None	173.262	Forbidden	Forbidden	1	1	Glass carboys not permitted on passenger vessel
	Hydrobromic acid not more than 49% strength	Corrosive material	Corrosive	173.244	173.262	1 quart	1 gallon	1	1	Glass carboys not permitted on passenger vessel

§172.101 Hazardous Materials Table (cont'd)

(1) N W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
	Hydrocarbon gas, liquefied.	Flammable gas	Flammable gas	173.306	173.304 173.314	Forbidden	300 pounds	1.2	1	
	Hydrocarbon gas, nonliquefied	Flammable gas	Flammable gas	173.306	173.302	Forbidden	300 pounds	1.2	1	
	Hydrochloric (muriatic) acid	Corrosive material	Corrosive	173.244	173.263	1 quart	1 gallon	1	1	Glass carboys not permitted on pas- senger vessel
	Hydrochloric acid, anhydrous. See Hydrogen chloride									
	Hydrochloric acid mixture	Corrosive material	Corrosive	173.244	173.263	1 quart	1 gallon	1	1	Glass carboys not permitted on pas- senger vessel
	Hydrochloric acid solution, inhibited	Corrosive material	Corrosive	173.244	173.263	1 quart	1 gallon	1	1	Glass carboys not permitted on pas- senger vessel
	Hydrocyanic acid, liquefied	Poison A	Flammable gas and Poison gas	None	173.332	Forbidden	Forbidden	1	5	
	Hydrocyanic acid (prussic), solution (5% or more hydrocyanic acid)	Poison A	Flammable gas and Poison gas	None	173.332	Forbidden	Forbidden	1	5	Shade from radiant heat. Aqueous solu- tions containing more than 20 percent hydrogen cyanide are not permitted in transportation by water
	Hydrocyanic acid (prussic), unstabilized	Forbidden								
	Hydrocyanic acid solution, less than 5% hydrocyanic acid	Poison B	Poison	None	173.351	Forbidden	25 pounds	1	5	Shade from radiant heat
	Hydrofluoric acid, anhydrous. See Hydrogen fluoride									
	Hydrofluoric acid solution	Corrosive material	Corrosive	173.244	173.264	1 quart	1 gallon	1	4	
	Hydrofluoric and sulfuric acids, mixture.	Corrosive material	Corrosive	None	173.290	Forbidden	1 gallon	1	5	
	Hydrofluoroboric acid. See Fluoboric acid									
	Hydrofluorosilicic acid	Corrosive material	Corrosive	None	173.265	1 quart	1 gallon	1.2	1.2	
	Hydrogen	Flammable gas	Flammable gas	173.306	173.302 173.314	Forbidden	300 pounds	1.2	4	
	Hydrogen, Liquefied	Flammable gas	Flammable gas	None	173.316	Forbidden	Forbidden			Forbidden
	Hydrogen bromide	Nonflammable gas	Nonflammable gas	173.306	173.304	Forbidden	300 pounds	1	4	
	Hydrogen chloride	Nonflammable gas	Nonflammable gas	173.306	173.304	Forbidden	300 pounds	1	4	
	Hydrogen fluoride	Corrosive material	Corrosive	None	173.264	Forbidden	110 pounds	1	5	Segregation same as for nonflammable gases
	Hydrogen iodide solution. See Hydriodic acid									
	Hydrogen peroxide solution (8% to 40% peroxide)	Oxidizer	Oxidizer	173.244	173.266	1 quart	1 gallon	1.2	1	Shade from radiant heat. Separate from permanganates. Keep away from pow- dered metals
	Hydrogen peroxide solution (40% to 52% peroxide)	Oxidizer	Oxidizer	173.244	173.266	Forbidden	Forbidden	1	4	Shade from radiant heat. Separate from permanganates. Keep away from pow- dered metals
	Hydrogen peroxide solution (over 52% peroxide)	Oxidizer	Oxidizer	None	173.266	Forbidden	Forbidden	1	5	Shade from radiant heat. Separate from permanganates. Keep away from pow- dered metals. Concentrations greater than 60% hydrogen peroxide not per- mitted on any vessel except under con- ditions approved by the Department
	Hydrogen selenide	Flammable gas	Flammable gas and Poison	None	173.328	Forbidden	Forbidden	1	5	
	Hydrogen sulfate. See Sulfuric acid									
	Hydrogen sulfide	Flammable gas	Flammable gas and Poison	None	173.304 173.314	Forbidden	300 pounds	1	5	
	Hydrosilicofluoric acid. See Hydrofluorosilicic acid									
	Hypochlorite solution containing more than 7% available chlorine by weight	Corrosive material	Corrosive	173.244	173.277	1 quart	4 gallons	1.2	1	Glass carboys in hampers not permitted under deck
	Hypochlorite solution containing not more than 7% available chlorine by weight	ORM-B	None	173.503	173.510	No limit	No limit			
	Igniter	Class C explosive	Explosive C	None	173.106	50 pounds	150 pounds	1.3	1.3	
	Igniter cord	Class C explosive	Explosive C	None	173.100	50 pounds	150 pounds	1.3	1.3	
	Igniter fuse, metal clad	Class C explosive	Explosive C	None	173.106	50 pounds	150 pounds	1.3	1.3	
	Igniter, jet thrust (jeto)	Class A explosive	Explosive A	None	173.79	Forbidden	Forbidden	6	5	
	Igniter, jet-thrust (jeto)	Class B explosive	Explosive B	None	173.92	Forbidden	550 pounds	1.3	5	
	Igniter, rocket motor	Class A explosive	Explosive A	None	173.79	Forbidden	Forbidden	6	5	

RULES AND REGULATIONS

§172.101 Hazardous Materials Table (cont'd)

(1) * W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not accepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
*	Igniter, rocket motor	Class B explosive	Explosive B	None	173.92	Forbid- den	550 pounds	1.3	5	
	<i>Illuminating projectile. See Fireworks, special</i>									
	Iminobispropylamine	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
	Initiating explosive <i>Diazodinitrophenol</i>	Class A explosive	Explosive A	None	173.70	Forbid- den	Forbid- den	6	5	
	Initiating explosive <i>Fulminate of mercury</i>	Class A explosive	Explosive A	None	173.71	Forbid- den	Forbid- den	6	5	
	Initiating explosive <i>Guanyl nitrosamine guanidene hydrazine</i>	Class A explosive	Explosive A	None	173.72	Forbid- den	Forbid- den	6	5	
	Initiating explosive <i>Lead azide, desiccated type only</i>	Class A explosive	Explosive A	None	173.73	Forbid- den	Forbid- den	6	5	
	Initiating explosive <i>Lead mononitrosoriscinate</i>	Class A explosive	Explosive A	None	173.70	Forbid- den	Forbid- den	6	5	
	Initiating explosive <i>Lead styphnate (lead trinitrosoriscinate)</i>	Class A explosive	Explosive A	None	173.74	Forbid- den	Forbid- den	6	5	
	Initiating explosive <i>Nitro mannite</i>	Class A explosive	Explosive A	None	173.75	Forbid- den	Forbid- den	6	5	
	Initiating explosive <i>Nitroguanidine</i>	Class A explosive	Explosive A	None	173.76	Forbid- den	Forbid- den	6	5	
	Initiating explosive <i>Pentaerythrit tetranitrate</i>	Class A explosive	Explosive A	None	173.77	Forbid- den	Forbid- den	6	5	
	Initiating explosive <i>Tetrazene (guanyl nitrosamine guanyl tetrazene)</i>	Class A explosive	Explosive A	None	173.78	Forbid- den	Forbid- den	6	5	
	Ink	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
*	Ink	Flammable liquid	Flammable	173.118	173.144	1 quart	10 gallons	1.2	1	
*	Insecticide, dry, n.o.s.	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Insecticide, liquefied gas (containing no Poison A or B material)	Nonflamma- ble gas	Nonflamma- ble gas	173.306	173.304	150 pounds	300 pounds	1.3	1.3	
	Insecticide, liquefied gas, containing Poison A material or Poison B material	Poison A	Poison gas	None	173.329 173.334	Forbid- den	Forbid- den	1	5	Shade from radiant heat
	Insecticide, liquid, n.o.s.	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Insecticide, liquid, n.o.s.	Flammable liquid	Flammable	173.118	173.119	1 quart	10 gallons	1.2	1	
	Insecticide, liquid, n.o.s.	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1.2	
	Insulation tape (varnished cloth type). See Oiled material									
	Iodine monochloride	Corrosive material	Corrosive	None	173.293	Forbid- den	1 quart	1	5	Keep dry
	Iodine pentafluoride	Oxidizer	Oxidizer and Poison	None	173.246	Forbid- den	100 pounds	1	1	Keep dry
	Iron chloride, solid. See Ferric chloride, solid									
A	Iron mass or sponge, not properly oxidized	Flammable solid	Flammable solid	None	173.174	Forbid- den	Forbid- den	1.2	5	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Iron mass or sponge spent	Flammable solid	Flammable solid	None	173.174	Forbid- den	Forbid- den	1.2	5	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Iron, oxide, spent					Forbid- den	Forbid- den			
	Iron sesquichloride, solid. See Ferric chloride									
	Irritating agent, n.o.s.	Irritating material	Irritant	173.382		Forbid- den	75 pounds	1	1	Stow away from living quarters
	Isobutane or Liquefied petroleum gas. See Liquefied petroleum gas									
	Isobutyl acetate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Isobutylamine	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Isobutylene or Liquefied petroleum gas. See Liquefied petroleum gas									
	Isobutyric acid	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
A	Isobutyric anhydride	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
	Isopentane	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Isopentene	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	4	
	Isopentane	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	4	
	Isopentane	Flammable liquid	Flammable liquid	173.118	173.119	Forbid- den	10 gallons	1.2	4	

§ 172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Passenger vessel	(c) Other requirements
	Isopentanoic acid	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1,2	1,2	
	Isoprene	Flammable liquid	Flammable liquid	173.118	173.119	Forbidden	10 gallons	1,3	4	
	Isopropanol. See Alcohol, n.o.s.									
	Isopropyl acetate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,2	1	
	Isopropyl acid phosphate solid	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1,2	1,2	
	Isopropylamine	Flammable liquid	Flammable liquid	None	173.119	Forbidden	10 gallons	1,3	5	
	Isopropyl mercaptan	Flammable liquid	Flammable liquid	None	173.141	Forbidden	10 gallons	1,3	5	
	Isopropyl nitrate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,2	1	
	Isopropyl percarbonate, stabilized	Organic peroxide	Organic peroxide	None	173.282	Forbidden	Forbidden	5	5	
	Isopropylpercarbonate, unstabilized	Organic peroxide	Organic peroxide	None	173.218	Forbidden	Forbidden	5	5	
	Isopropyl phosphoric acid, solid. See Isopropyl acid phosphate, solid.									
	Jet thrust igniter. See Igniter, jet thrust									
	Jet thrust unit (Jatu)	Class A explosive	Explosive A	None	173.79	Forbidden	Forbidden	6	5	
	Jet thrust unit (Jatu)	Class B explosive	Explosive B	None	173.92	Forbidden	350 pounds	1,2	5	
W	Jute. See Fibers									
W	Kepok. See Fibers									
	Kerosene	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
	Lacquer. See *Paint, enamel, lacquer, stain, etc.									
	Lacquer base, liquid. See *Paint, enamel, lacquer, stain, etc.									
	Lacquer base, or lacquer chips, dry	Flammable solid	Flammable solid	173.153	173.175	25 pounds	100 pounds	1	1	
	Lacquer base or lacquer chips, plastic (see with alcohol or solvent)	Flammable liquid	Flammable liquid	173.118	173.127	1 quart	25 pounds	1,2	1	
	Lacquer removing, reducing, or thinning compound. See Compound, lacquer, paint, or varnish, etc., removing, reducing or thinning liquid									
	Lauroyl peroxide	Organic peroxide	Organic peroxide	173.153	173.157	2 pounds	25 pounds	1,2	1	
	Lead arsenate, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1,2	1,2	
	Lead arsenite, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1,2	1,2	
A	Lead azide. See Initiating explosive									
	Lead chloride	ORM-B	None	173.305	173.510	25 pounds	100 pounds	1,2	1,2	
	Lead cyanide	Poison B	Poison	173.370	173.800	25 pounds	No limit	1,2	1,2	Stow away from acids
W	Lead dross	ORM-C	None	173.305	173.1010			1,2	1,2	Segregation same as for corrosive materials
	Lead mononitrosarsenate. See Initiating explosive									
	Lead nitrate	Oxidizer	Oxidizer	173.153	173.182	25 pounds	100 pounds	1,2	1,2	Stow away from foodstuffs
	Lead peroxide	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1,2	1,2	Stow away from foodstuffs
W	Lead scrap. See Lead dross									
	Lead stypmate (lead trinitrosarsenate). See Initiating explosive									
	Lead sulfate, solid (containing more than 3% free acid)	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1,2	1,2	
	Leather bleach or dressing	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,2	1	
	Leather bleach or dressing	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
	Lighter fluid	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,2	1	
	Lime-nitrogen. See Calcium cyanamide, not hydrated, etc.									
A	Lime, unstaked. See Calcium oxide									
	Lindane	ORM-A	None	173.505	173.510	No limit	No limit			
	Liquefied hydrocarbon gas. See Hydrocarbon gas, liquefied									

§172.101 Hazardous Materials Table (cont'd)

(1) Hazardous materials descriptions and proper shipping names	(2) Hazard class	(3) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments			
			(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Passenger vessel	(c) Other requirements	
Liquefied nonflammable gas (charged with nitrogen, carbon dioxide, or air)	Nonflammable gas	Nonflammable gas	173.306	173.304	300 pounds	300 pounds	1.2	1.2		
Liquefied petroleum gas	Flammable gas	Flammable gas	173.306	173.304 173.314 173.315	Forbidden	300 pounds	1.2	1		
Liquid other than one classed as flammable, corrosive, poison or irritant, charged with nitrogen, carbon dioxide, or air. See Compressed gas n.o.s.										
Lithium acetylide-ethylene diamine complex	Flammable solid	Flammable solid and Dangerous when wet	None	173.206	Forbidden	25 pounds	1.2	5	Segregation same as for flammable solid labeled Dangerous When Wet	
Lithium aluminum hydride	Flammable solid	Flammable solid and Dangerous when wet	None	173.206	Forbidden	25 pounds	1.2	5	Segregation same as for flammable solid labeled Dangerous When Wet	
Lithium aluminum hydride, etheral	Flammable liquid	Flammable liquid	None	173.137	Forbidden	1 quart	1.2	5	Segregation same as for flammable solids labeled Dangerous When Wet	
Lithium amide, powdered	Flammable solid	Flammable solid	173.153	173.168	25 pounds	100 pounds	1.2	4	Segregation same as for flammable solids labeled Dangerous When Wet	
Lithium borohydride	Flammable solid	Flammable solid and Dangerous when wet	None	173.206	Forbidden	25 pounds	1.2	5	Segregation same as for flammable solids labeled Dangerous When Wet	
Lithium ferro silicon	Flammable solid	Flammable solid and Dangerous when wet	None	173.206	Forbidden	25 pounds	1.2	5	Segregation same as for flammable solids labeled Dangerous When Wet	
Lithium hydride	Flammable solid	Flammable solid and Dangerous when wet	None	173.206	Forbidden	25 pounds	1.2	5	Segregation same as for flammable solids labeled Dangerous When Wet	
Lithium hydride in fused solid form	Flammable solid	Flammable solid and Dangerous when wet	None	173.206	Forbidden	100 pounds	1.2	5	Segregation same as for flammable solids labeled Dangerous When Wet	
Lithium hypochlorite compound, dry (containing more than 39% available chlorine)	Oxidizer	Oxidizer	173.153	173.217	50 pounds	100 pounds	1.2	1.2		
Lithium metal	Flammable solid	Flammable solid and Dangerous when wet	None	173.206	Forbidden	25 pounds	1.2	5	Segregation same as for flammable solids labeled Dangerous When Wet	
Lithium metal, in cartridges	Flammable solid	Flammable solid and Dangerous when wet	173.206		1 pound	25 pounds	1.2	4	Segregation same as for flammable solids labeled Dangerous When Wet	
Lithium nitride	Flammable solid	Flammable solid and Dangerous when wet	None	173.206	Forbidden	25 pounds	1.2	5	Segregation same as for flammable solids labeled Dangerous When Wet	
Lithium peroxide	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1.2	1.2	Keep dry	
Lithium silicon	Flammable solid	Flammable solid and Dangerous when wet	None	173.206	Forbidden	25 pounds	1.2	1.2	Segregation same as for flammable solids labeled Dangerous When Wet	
London purple, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2		
Low blasting explosive. See Low explosive										
Low explosive	Class A Explosive	Explosive A	None	173.60	Forbidden	Forbidden	6	5		
Lye. See Sodium hydroxide, solid										
Magnesium aluminum phosphide	Flammable solid	Flammable solid and Dangerous when wet	None	173.206	Forbidden	25 pounds	1.2	1.2	Segregation same as for flammable solids labeled Dangerous When Wet	
Magnesium arsenate, solid	Poison B	Poison	173.364	173.367	50 pounds	200 pounds	1.2	1.2		
Magnesium dross, wet or hot	Forbidden		173.173							
Magnesium, metal (powdered, pellets, turnings, or ribbons)	Flammable solid	Flammable solid and Dangerous when wet	173.153	173.220	25 pounds	100 pounds	1.2	1.2	Segregation same as for flammable solids labeled Dangerous When Wet	
Magnesium nitrate	Oxidizer	Oxidizer	173.153	173.182	25 pounds	100 pounds	1.2	1.2		
Magnesium perchlorate	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1.3	1.3	Stow away from powdered metals	
Magnesium peroxide, solid	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1.2	1.2	Keep dry	

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pass- enger vessel	(c) Other requirements
	Magnesium scrap (borings, clippings, shavings, sheet, turnings, or scalings)	Flammable solid	Flammable solid and Dangerous when wet	173.153	173.220	Forbidden	Forbidden	1.2	1.2	Segregation same as for flammable solids labeled Dangerous When Wet
A	Magnetized material	ORM-C	Magnetized material	None	173.1020	No limit	No limit			
A	Malathion	ORM-A	None	173.505	173.510	No limit	No limit			
A	Manganese dioxide	ORM-B	None	173.505	173.510	No limit	No limit			
	Matches, block. See Matches, strike anywhere	Flammable solid	Flammable solid	173.176		50 pounds	50 pounds	1.2	1	
	Matches, safety, book, card, or strike-on-box	Flammable solid	Flammable solid	None	173.176	Forbidden	Forbidden	1.2	1	
	Matches, strike anywhere	Flammable solid	Flammable solid	None	173.176	Forbidden	Forbidden	1.2	1	
	Matting acid. See Sulfuric acid									
	Medicines, n.o.s.	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Medicines, n.o.s.	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Medicines, n.o.s.	Flammable solid	Flammable solid	173.153	173.154	25 pounds	100 pounds	1.2	1.2	
	Medicines, n.o.s.	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1.2	1.2	
	Medicines, n.o.s., liquid	Corrosive material	Corrosive	173.244	173.245	1 quart	1 quart	1.2	1.2	
	Medicines, n.o.s., liquid	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.3	1	
	Medicines, n.o.s., solid	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1.2	1.2	Keep dry
	Medicines, n.o.s., solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.3	1.3	
	Monotetrahydro phthalic anhydride	Corrosive material	Corrosive	None	173.298	Forbidden	1 quart	1.2	1	
	Mercaptan mixture, aliphatic (in containers over 110 gallons)	Combustible liquid	None	173.118a	None	Forbidden	10 gallons	1.2	1.2	
AW	Mercaptan mixture, aliphatic (in containers of 110 gallons or less) see 173.141(b)	ORM-A	None	173.505	173.510	Forbidden	10 gallons	1.3	3	Stow in well ventilated space away from living quarters
	Mercaptan mixture, aliphatic	Flammable liquid	Flammable liquid	None	173.141	Forbidden	10 gallons	1.3	3	
	Mercuric acetate	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercuric-ammmonium chloride, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercuric benzoate, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercuric bromide, solid	Poison B	Poison	173.364	173.365	Forbidden	25 pounds	1.2	1.2	
	Mercuric chloride, solid	Poison B	Poison	173.364	173.372	Forbidden	25 pounds	1.2	1.2	
	Mercuric cyanide, solid	Poison B	Poison	173.370		25 pounds	200 pounds	1.2	1.2	Stow away from acids
	Mercuric iodide, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercuric iodide solution	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1.2	
	Mercuric oleate, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercuric oxide, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercuric oxycyanide, solid	Poison B	Poison	173.364	173.365	25 pounds	200 pounds	1.2	1.2	Stow away from acids
	Mercuric-potassium cyanide, solid	Poison B	Poison	173.364	173.365	25 pounds	200 pounds	1.2	1.2	Stow away from acids
	Mercuric-potassium iodide, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercuric salicylate, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercuric sub sulfate, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercuric sulfate, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercuric sulfo cyanate, solid or mercuric thiocyanate, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercuriol, or mercury nucleate, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercurous acetate, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercurous bromide, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercurous gluconate, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	

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§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
	Mercurous iodide, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercurous nitrate, solid	Oxidizer	Oxidizer	173.153	173.154	50 pounds	100 pounds	1.2	1.2	
	Mercurous oxide, black, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercurous sulfate, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercury compound, n.o.s., solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Mercury fulminate. See Initiating explosive									
A	Mercury, metallic	ORM-B	None	None	173.860	173.860	173.860			
	Methyl oxide	Flammable liquid	Flammable liquid	None	173.119	1 quart	10 gallons	1.2	1.2	
W	Metal borings, shavings, turnings, or cuttings	ORM-C	None	173.505	173.1025			1.2	1.2	Keep dry. Not permitted if temperature of material is at or above 1300DEG F
	Methane	Flammable gas	Flammable gas	173.306	173.302	Forbidden	300 pounds	1.2	4	
	Methanol. See Methyl alcohol									
	Methyl acetate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Methyl acetone	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Methylacetylene-propadiene, stabilized	Flammable gas	Flammable gas	173.306	173.304 173.314 173.315	Forbidden	300 pounds	1.2	1	
	Methyl acrylate, inhibited	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Methylal	Flammable liquid	Flammable liquid	None	173.119	Forbidden	10 gallons	1.3	5	
	Methyl alcohol	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Methylamine, anhydrous or Monomethylamine	Flammable gas	Flammable gas	173.306	173.304 173.314 173.315	Forbidden	300 pounds	1.2	4	
	Methyl amyl acetate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1.2	
	Methyl amyl ketone	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Methyl bromide and ethylene dibromide mixture, liquid	Poison B	Poison	None	173.353	Forbidden	55 gallons	1	1	
	Methyl bromide and more than 2% chloropierin mixture, liquid	Poison B	Poison	None	173.353	Forbidden	Forbidden	1	5	Shade from radiant heat
	Methyl bromide and nonflammable, nonliquefied compressed gas mixture, liquid (including up to 2% chloropierin)	Poison B	Poison	None	173.353a	Forbidden	300 pounds	1	5	Stow away from living quarters
	Methyl bromide, liquid (bromomethane) (including up to 2% chloropierin)	Poison B	Poison	None	173.353	Forbidden	55 gallons	1	5	Stow away from living quarters. Segregation same as for nonflammable gas
	Methyl butene	Flammable liquid	Flammable liquid	None	173.119	Forbidden	10 gallons	1.2	5	
	Methyl butyrate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Methyl cellosolve. See Ethylene glycol monomethyl ether									
	Methyl cellosolve acetate. See Ethylene glycol monomethyl ether acetate									
	Methyl chloride	Flammable gas	Flammable gas	173.306	173.304 173.314 173.315	Forbidden	300 pounds	1.2	4	
A	Methyl chloride-methylene chloride mixture	Flammable gas	Flammable gas	173.306	173.304 173.314	Forbidden	300 pounds	1.2	4	
	Methyl chloroformate. See Methyl chloroformate									
A	Methyl chloroform	ORM-A	None	173.505	173.510 173.605	10 gallons	55 gallons			
	Methyl chloroformate	Flammable liquid	Flammable liquid and Poison	None	173.288	Forbidden	5 pints	1.2	1	
	Methylchloromethyl ether, anhydrous	Flammable liquid	Flammable liquid and Poison	None	173.143	Forbidden	Forbidden	1	5	Shade from radiant heat
	Methylcyclohexane	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Methylcyclopentane	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.3	4	
	Methyl dichloroacetate	Corrosive material	Corrosive	173.244	173.245	1 quart	1 quart	1.2	1.2	
	Methyldichloroarsine	Poison A	Poison gas	None	173.328	Forbidden	Forbidden	1	5	Shade from radiant heat

§172.101 Hazardous Materials Table (cont'd)

(1) W/ K	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger, cargo aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pass- enger vessel	(c) Other requirements
	Methyl dichlorosilane	Flammable liquid	Flammable liquid	None	173.136	Forbidden	5 pints	1.2	1	
	Methylene chloride. See Dichloromethane									
	Methyl ethyl ether. See Ethyl methyl ether									
	Methyl ethyl ketone	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Methyl ethyl pyridine	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
	Methyl formate	Flammable liquid	Flammable liquid	173.118	173.119	Forbidden	10 gallons	1.3	4	
	Methylfuran	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.3	4	
	Methylhydrazine	Flammable liquid	Flammable liquid and Poison	None	173.145	Forbidden	5 pints	1.2	1	Stow separate from oxidizing materials and corrosives
	Methyl isopropenyl ketone, inhibited	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Methyl magnesium bromide in ethyl ether not over 40% concentration	Flammable liquid	Flammable liquid	None	173.149	Forbidden	Forbidden	1	1	Segregation same as for flammable solids. Separate from flammable gases or liquids, oxidizing materials or organic peroxides
	Methyl mercaptan	Flammable gas	Flammable gas	173.306	173.304 173.314 173.315	Forbidden	300 pounds	1.2	1	
	Methyl methacrylate monomer, inhibited	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Methyl methacrylate monomer, uninhibited (high-purity, if acceptable under Sec. 173.21 of this subchapter)	Flammable liquid	Flammable liquid	173.118	173.119	Forbidden	Forbidden	1.2	1	
	Methyl neobutane dicarboxylic anhydride. See Menthyltetrahydro phthalic anhydride									
	Methyl parathion, liquid	Poison B	Poison	None	173.358	Forbidden	1 quart	1.3	1.3	
	Methyl parathion mixture, dry	Poison B	Poison	173.377	173.377	50 pounds	200 pounds	1.2	1.2	
	Methyl parathion mixture, liquid, (containing 25% or less methyl parathion)	Poison B	Poison	None	173.359	1/2 pint	1 quart	1.2	1.2	
	Methyl parathion mixture, liquid, (containing over 25% methyl parathion)	Poison B	Poison	None	173.359	Forbidden	1 quart	1.2	1.2	
	Methylpentadecane	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Methyl pentane	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Methyl phosphonothioic dichloride, anhydrous	Corrosive material	Corrosive	173.244	173.245 173.245a	1 quart	1 quart	1	4	
	Methyl phosphonous dichloride	Corrosive material	Corrosive	173.244	173.245 173.245a	1 quart	1 quart	1	4	
	Methyl propionate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Methyl propyl ketone	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Methyl sulfate. See Dimethyl sulfate									
	Methyl sulfide. See Dimethyl sulfide									
	Methyltrichlorosilane	Flammable liquid	Flammable liquid	None	173.135	Forbidden	10 gallons	1.2	1	
	Methyl vinyl ketone, inhibited	Flammable liquid	Flammable liquid	173.147	173.147	4 ounces	10 gallons	1.2	1	
	Mild detonating fuse, metal clad. See Fuse, mild detonating, metal clad									
	Mine, empty See 173.55									
	Mine, explosive, with gas material. See Explosive mine									
	Mine rescue equipment containing carbon dioxide	Nonflammable gas	Nonflammable gas	173.306		150 pounds	300 pounds	1.2	1.2	
	Mining reagents, liquid (containing 20% or more creosylic acid)	Corrosive material	Corrosive	173.244	173.245 173.245a	1 quart	10 gallons	1.2	1.2	
A	Misafos	ORM-A	None	173.503	173.510	No limit	No limit			
	Mixed acid. See Nitrating (mixed) acid									
A	Molybdenum pentachloride	ORM-B	None	173.503	173.510 173.800 173.304 173.314	25 pounds 100 pounds 150 pounds	100 pounds 300 pounds	1.2	1.2	
	Monobromotrifluoromethane	Nonflammable gas	Nonflammable gas	173.306	173.304 173.314	1 quart	1 quart	1.2	1.2	
	Monochloroacetic acid, liquid or solution	Corrosive material	Corrosive	173.244	173.294	1 quart	1 quart	1.2	1.2	Glass carboys in hampers not permitted under deck
	Monochlorooctene	Forbidden								

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
	Monochloroacetone, stabilized or inhibited	Irritating material	Irritant	None	173.384	Forbidden	5 gallons	1	1	Stow away from living quarters
	Monochlorodifluoromethane	Nonflammable gas	Nonflammable gas	173.306	173.304 173.314 173.315	150 pounds	300 pounds	1.2	1.2	
	Monochloroethylene. See Vinyl chloride									
	Monochloropentafluoroethane	Nonflammable gas	Nonflammable gas	173.306	173.304	150 pounds	300 pounds	1.2	1.2	
	Monochlorotetrafluoroethane	Nonflammable gas	Nonflammable gas	173.306	173.304 173.314	150 pounds	300 pounds	1.2	1.2	
	Monochlorotrifluoromethane	Nonflammable gas	Nonflammable gas	173.306	173.304	150 pounds	300 pounds	1.2	1.2	
	Monoethanolamine	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
	Monoethanolamine solution	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
	Monothylamine	Flammable liquid	Flammable liquid	None	173.148	Forbidden	5 pints	1.2	5	Segregation same as for flammable gas
	Monofluorophosphoric acid, anhydrous	Corrosive material	Corrosive	None	173.275	Forbidden	1 gallon	1.2	1.2	Keep dry
	Monomethylamine, anhydrous	Flammable gas	Flammable gas	173.306	173.304 173.314 173.315	Forbidden	300 pounds	1.2	4	
	Monomethylamine, aqueous solution	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	4	Stow away from mercury and its compounds
	Mortar stain, liquid	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Mortar stain, liquid	Flammable liquid	Flammable liquid	173.118	173.128	1 quart	55 gallons	1.2	1	
	Moth balls. See Naphthalene									
	Motion picture film. See Film									
	Motor fuel antiknock compound or antiknock compound	Poison B	Poison	None	173.354	Forbidden	55 gallons	1	5	If flashpoint less than 141 deg F., segregation same as for flammable liquids
	Motor fuel n.o.s.	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Motor fuel, n.o.s.	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Motor, internal combustion	ORM-C	None	173.120 173.120 173.250 173.306 173.120 173.250 173.257 173.306 173.305 176.305				1.2	1.2	Not permitted in nonvented container
	Motor vehicle, etc., including automobile, motorcycle, truck, tractor, and other self-propelled vehicle or equipment powered by internal combustion engine, when offered new or used for transportation and which contain fuel in the engine or fuel tank or the electric storage battery is connected to either terminal of the electrical system									
	Muriatic acid. See Hydrochloric (muriatic) acid									
	Naphtha	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Naphtha	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Naphtha distillate	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Naphtha distillate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
AW	Naphthalene or Naphthalin	ORM-A	None	173.305	173.655	25 pounds	300 pounds	1.2	1.2	Segregation same as for flammable solids
	Naphtha petroleum. See "Petroleum naphtha"									
	Naphtha, solvent	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Naphtha, solvent	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Natural gasoline. See Gasoline									
	Neohexane	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	4	
	Neon	Nonflammable gas	Nonflammable gas	173.306	173.302	150 pounds	300 pounds	1.2	1.2	
	New explosive or explosive device									
	Nickel carbonyl	Flammable liquid	Flammable liquid and Poison	None	173.86 173.126	Forbidden	Forbidden	1	5	Not permitted on a vessel carrying explosives. Shade from radiant heat. Segregation same as for flammable liquids in "
	Nickel catalyst, wet, finely divided, activated, or spent. With not less than 40% water or other suitable liquid	Flammable solid	Flammable solid	None	173.233	Forbidden	100 pounds	1.2	1	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Nickel cyanide, solid	Poison B	Poison	173.370		25 pounds	200 pounds	1.2	1.2	Stow away from acids

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§172.101 Hazardous Materials Table (cont'd)

(1) NA W/A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Passenger vessel	(c) Other requirements
	Nicotine hydrochloride	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1.2	
	Nicotine, liquid	Poison B	Poison	None	173.358	Forbidden	55 gallons	1.2	1.2	
	Nicotine salicylate	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Nicotine sulfate, liquid	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1.2	
	Nicotine sulfate, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Nicotine tartrate	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Nitrate of ammonia explosives. See High explosive									
	Nitrate, n.o.s.	Oxidizer	Oxidizer	173.153	173.182	25 pounds	100 pounds	1.2	1.2	
	Nitrating (mixed) acid	Oxidizer	Oxidizer	None	173.267	Forbidden	1 quart	1	5	Segregation same as for corrosive materials
	Nitrating (mixed) acid, spent	Corrosive material	Corrosive	None	173.248	Forbidden	1 quart	1	5	
	Nitric acid (over 40%)	Oxidizer	Oxidizer and Corrosive	None	173.268	Forbidden	5 pints	1	5	Segregation same as for corrosive materials. Slow away from hydrazine, separate from diethylenetriamine
	Nitric acid, fuming	Oxidizer	Oxidizer and Poison	None	173.268	Forbidden	Forbidden	1	5	Segregation same as for corrosive materials. Slow away from hydrazine, separate from diethylenetriamine
	Nitric acid, 40% or less	Corrosive material	Corrosive	None	173.268	Forbidden	5 pints	1	5	Slow away from hydrazine, separate from diethylenetriamine
	Nitric ether. See Ethyl nitrate									
	Nitric oxide	Poison A	Poison gas	None	173.337	Forbidden	Forbidden	1	5	
	Nitroaniline	Poison B	Poison	173.364	173.373	50 pounds	200 pounds	1.2	1.2	
	p-Nitroaniline. See Nitroaniline									
	Nitrobenzol, liquid (oil of mirbane, nitrobenzene)	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1.2	
	Nitro carbo nitrate	Oxidizer	Oxidizer	173.153	173.182	25 pounds	100 pounds	1.2	1.2	
	Nitrocellulose, colloided, granular or flake, wet with not less than 20% alcohol or solvent, or block, wet with not less than 25% alcohol	Flammable liquid	Flammable liquid	173.118	173.127	1 quart	25 pounds	1.3	1	
	Nitrocellulose, colloided, granular or flake, wet with not less than 20% water	Flammable solid	Flammable solid	173.133	173.184	25 pounds	100 pounds	1.3	1	
	Nitrocellulose, dry. See High explosive									
	Nitrocellulose flakes, wet with not less than 20% alcohol or solvent	Flammable liquid	Flammable liquid	173.118	173.127	1 quart	25 pounds	1.3	1	
	Nitrocellulose, wet with not less than 30% alcohol or solvent	Flammable liquid	Flammable liquid	173.118	173.127	1 quart	25 pounds	1.3	1	
	Nitrocellulose, wet with not less than 20% water	Flammable solid	Flammable solid	173.133	173.184	25 pounds	100 pounds	1.3	1	
	Nitrochlorobenzene, ortho, liquid	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1.2	
	Nitrochlorobenzene, meta or para, solid	Poison B	Poison	173.364	173.373	50 pounds	200 pounds	1.2	1.2	
	Nitrogen	Nonflammable gas	Nonflammable gas	173.306	173.302	150 pounds	300 pounds	1.3	1.3	
	Nitrogen, pressurized liquid	Nonflammable gas	Nonflammable gas	None	173.304	Forbidden	Forbidden	1	5	
	Nitrogen dioxide, liquid	Poison A	Oxidizer and Poison gas	None	173.336	Forbidden	Forbidden	1	5	Segregation same as for nonflammable gases. Slow away from organic materials
	Nitrogen fertilizer solution	Nonflammable gas	Nonflammable gas	173.306	173.302	150 pounds	300 pounds	1.3	1.3	
	Nitrogen peroxide, liquid	Poison A	Oxidizer and Poison gas	None	173.336	Forbidden	Forbidden	1	5	Segregation same as for nonflammable gases. Slow away from organic materials
	Nitrogen tetroxide, liquid	Poison A	Oxidizer and Poison gas	None	173.336	Forbidden	Forbidden	1	5	Segregation same as for nonflammable gases. Slow away from organic materials
	Nitroglycerin, liquid, desensitized. See High explosive, liquid									
	Nitroglycerin, liquid, undensitized. See (173.51)	Forbidden								
	Nitroglycerin, spirits of. See Spirits of nitroglycerin									
	Nitroguanidine, dry. See High explosive									
	Nitroguanidine, wet with not less than 20% water	Flammable solid	Flammable solid	173.153	173.184	25 pounds	100 pounds	1.2	1.2	
	Nitrohydrochloric acid	Corrosive material	Corrosive	None	173.278	Forbidden	5 pints	1	5	
	Nitrohydrochloric acid, diluted	Corrosive material	Corrosive	None	173.278	Forbidden	5 pints	1	5	
	Nitramine. See High explosive									

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Passenger vessel	(c) Other requirements
	Nitromethane	Flammable liquid	Flammable liquid	173.118	173.149a	1 quart	10 gallons	1.2	1.2	
	Nitromuriatic acid. See Nitrohydrochloric acid									
	Nitroguanidine. See Initiating explosive									
	Nitrostarch, dry. See High explosive									
	Nitrostarch, wet with not less than 30% alcohol or solvent	Flammable liquid	Flammable liquid	173.118	173.127	1 quart	25 pounds	1.2	1	
	Nitrostarch, wet with not less than 20% water	Flammable solid	Flammable solid	173.153	173.184	25 pounds	100 pounds	1	4	
	Nitrosyl chloride	Nonflamma- ble gas	Nonflamma- ble gas	173.306	173.304 173.314	Forbidden	300 pounds	1	4	
	Nitrourea. See High explosive									
	Nitrous oxide	Nonflamma- ble gas	Nonflamma- ble gas	173.306	173.304 173.315	150 pounds	300 pounds	1.2	1.2	Under deck stowage must be in well- ventilated space
	Nitroxylol	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1	
	Nonflammable gas n.o.s. See Compressed Gas, n.o.s.									
	Nonliquefied hydrocarbon gas	Flammable gas	Flammable gas	173.306	173.302	Forbidden	300 pounds	1.2	1	
	Nonyl trichlorosilane	Corrosive material	Corrosive	None	173.280	Forbidden	10 gallons	1	1	Keep dry
	Nordhausen acid. See Sulfuric acid									
W	Octadecyltrichlorosilane	ORM-C Corrosive material	None Corrosive	173.505 None	173.1030 173.280	Forbidden	10 gallons	1.2 1	1.2 1	Keep dry
	Octane	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Octyl trichlorosilane	Corrosive material	Corrosive	None	173.280	Forbidden	10 gallons	1	1	Keep dry
	Oil, described as oil, n.o.s., petroleum oil, or petroleum oil, n.o.s.	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Oil, described as oil, oil, n.o.s., petroleum oil, or petroleum oil, n.o.s.	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Oiled clothing (manufactured article properly dried to prevent spontaneous heating). See Oiled material									
AW	Oiled material (manufactured article properly dried to prevent spontaneous heating)	ORM-C	None	173.505	173.1035	No limit	No limit	1.3	1.3	
	Oiled paper (manufactured article properly dried to prevent spontaneous heating). See Oiled material									
	Oil of mirbane. See Nitrobenzol, liquid									
	Oil of vitriol. See Sulfuric acid									
	Oil well cartridge	Class C explosive	Class C explosive	None	173.112	30 pounds	150 pounds	1.3	1.3	
	Olcum (sulfuric acid fuming)	Corrosive material	Corrosive	None	173.272	Forbidden	5 pails	1.2	1	Under deck stowage must be in metal drums only. Keep dry
	Organic peroxide, liquid, or solution, n.o.s.	Organic peroxide	Organic peroxide	173.153	173.221	Forbidden	1 quart	1.2	1.2	Stow separate from combustible materi- als, explosives, or acids.
	Organic peroxide, solid, n.o.s.	Organic peroxide	Organic peroxide	173.153	173.154	Forbidden	25 pounds	1.2	1.2	Stow separate from combustible materi- als, explosives, or acids.
	Organic Peroxide liquid or solution, n.o.s.	Flammable liquid	Organic peroxide and flammable liquid	None	173.119	Forbidden	1 quart	1.2	5	Stow separate from combustible materi- als, explosives, or acids
	Organic phosphate, organic phosphate compound, or organic phosphorus compound; mixed with compressed gas	Poison A	Poison gas	None	173.334	Forbidden	Forbidden	1	5	Shade from radiant heat
	Organic phosphate, organic phosphate compound, or organic phosphorus compound; liquid	Poison B	Poison	None	173.358	Forbidden	1 quart	1.2	5	
	Organic phosphate, organic phosphate compound, or organic phosphorus compound; solid or dry	Poison B	Poison	None	173.377	Forbidden	200 pounds	1.2	4	
	Organic phosphate mixture, organic phosphate compound mixture, or organic phosphorus compound mixture; liquid	Poison B	Poison	173.359	173.359	1/2 pint	1 quart	1.2	5	
	Organic phosphate mixture, organic phosphate compound mixture, or organic phosphorus compound mixture, solid or dry	Poison B	Poison	173.377	173.377	50 pounds	200 pounds	1.2	4	
AW	ORM-A n.o.s.	ORM-A	None	173.505	173.510	No limit	No limit	1.2	1.2	Stow away from living quarters
AW	ORM-B n.o.s.	ORM-B	None	173.505	173.510	No limit	No limit	1.2	1.2	
	ORM-C. See 173.500 & 176.900 Orthonitroaniline. See Nitroaniline									

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
	Oxidizer, or Oxidizing material, n.o.s. <i>Oxidizer material packed with other articles See 173.152</i>	Oxidizer	Oxidizer	173.153	173.154	25 pounds	25 pounds	1.2	1.2	
	• Oxygen	Nonflamma- ble gas	Oxidizer	173.306	173.302- 173.314	150 pounds	300 pounds	1.2	1.2	Under deck stowage must be in well ventilated space Stow separate from acetylene. Do not overload with other cargo
	• Oxygen, pressurized liquid	Nonflamma- ble gas	Oxidizer	None	173.304	Forbidden	Forbidden	1.3	1.3	
	• Paint drier, liquid	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	• Paint drier, liquid	Flammable liquid	Flammable liquid	173.118	173.128	1 quart	55 gallons	1.2	1	
	• Paint, enamel, lacquer, stain, shellac, or varnish; aluminum, bronze, gold, wood filler, liquid or lacquer base, liquid	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	• Paint, enamel, lacquer, stain, shellac, or varnish; aluminum, bronze, gold, wood filler, liquid, or lacquer base, liquid	Flammable liquid	Flammable liquid	173.118	173.128	1 quart	55 gallons	1.2	1	
	• Paint, reducing or thinning compound. See "Compound, lacquer, paint, or varnish, reducing or thinning liquid, etc. Paper caps. See Toy caps									
W	Paper scrap (when dry, clean, and free from oil)	ORM-C	None	173.505	173.1075			1.2	1.2	
	Paper stock, wet	Flammable solid	Flammable solid	None	173.183	Forbidden	Forbidden	1.2	1.2	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Paper waste (when dry, clean, and free from oil). See Paper scrap									
	Paper waste, wet. See Waste paper, wet									
	Parasenthanic hydroperoxide	Organic peroxide	Organic peroxide	173.153	173.224	1 quart	1 quart	1.2	4	
	Paranitroaniline, solid. See Nitroaniline									
	Parathion and compressed gas mixture	Poison A	Poison gas	None	173.334	Forbidden	Forbidden	1.3	5	
	Parathion, liquid	Poison B	Poison	None	173.358	Forbidden	Forbidden	1.3		
	• Parathion mixture, dry	Poison B	Poison	173.377	173.377	50 pounds	200 pounds	1.3	1.3	
	Parathion mixture, liquid	Poison B	Poison	None	173.359	Forbidden	Forbidden	1.3	1.3	
	Paris green, solid. See Copper acetarsenite, solid									
	Pentaborane	Flammable liquid	Poison and flammable liquid	None	173.138	Forbidden	Forbidden		5	Segregation same as for flammable solids. Separate from flammable gases or liquids, oxidizing materials, or or- ganic peroxides
	Pentacerythrite tetranitrate. See Initiating explosive									
	Pentacerythrite tetranitrate, desensitized, wet. See High explosive									
	Pentane	Flammable liquid	Flammable liquid	173.118	173.119	Forbidden	10 gallons	1.3	4	
	Pentoxide, dry. See High explosive									
	Peracetic acid solution, not over 40% peracetic acid and not over 6% hydrogen peroxide	Organic peroxide	Organic peroxide	173.223	173.223	1 pint	5 pints	1	4	Shade from radiant heat
	• Perchlorate, n.o.s.	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1.3	1.3	Stow away from powdered metals
	Perchloric acid, exceeding 50% but not exceeding 72% strength	Oxidizer	Oxidizer	None	173.269	Forbidden	5 pints	1	5	Segregation same as for corrosive materials. Stow away from hydrazine
	• Perchloric acid exceeding 72% strength	Forbidden	Oxidizer	173.244	173.269	Forbidden	5 pints	1	1	Segregation same as for corrosive materials. Stow away from hydrazine
	Perchloric acid, not over 50% acid	Oxidizer	Oxidizer	173.244	173.269	Forbidden	5 pints	1	1	
	Perchloro-methyl-mercaptan	Poison B	Poison	173.345	173.360	Forbidden	10 pounds	1	4	
	Percussion cap	Class C explosive	Explosive C	None	173.107	Forbidden	50 pounds	1.3	1.3	
	Percussion fuze	Class C explosive	Explosive C	None	173.105	Forbidden	50 pounds	1.3	1.3	
A	Perfluoro-2-butene	ORM-A	None	173.505	173.510 173.603	10 gallons	55 gallons			
	• Permanganate, n.o.s.	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1.2	1.2	Separate from ammonium compounds, hydrogen peroxide, and acids
	Permanganate of potash. See Potassium permanganate									
	• Peroxide, organic See Organic Peroxide									
W	Pesticide, water reactive, including but not limited to fungicides, and herbicides, etc., which contain manganese ethylenebisdithio carbamate	ORM-C	None	173.505	173.1040			2	2	Keep dry

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
W	Petroleum coke (unskinned)	ORM-C	None	173.505	173.1045			1.2	1.2	Not permitted if temperature of material is at or above 130 deg F.
	Petroleum crude. See Crude oil									
	Petroleum distillates	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Petroleum distillates	Flammable liquid	Flammable liquid	173.119	173.119	1 quart	10 gallons	1.3	4	
	Petroleum ether	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.3	4	
	Petroleum gas, liquefied. See Liquefied petroleum gas									
	Petroleum naphtha	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Petroleum naphtha	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
A	Phenacpton	ORM-A	None	173.505	173.510	No limit	No limit			
	Phenol. See Carbolic acid									
	Phenyl dichloro arsine	Poison B	Poison	None	173.355	Forbidden	30 gallons	1	5	
A	Phenylendiamine, meta or para, solid	ORM-A	None	173.505	173.510	No limit	No limit			
	Phenyl trichlorosilane	Corrosive material	Corrosive	None	173.280	Forbidden	10 gallons	1	1	Keep dry
	Phosgene (diphosgene)	Poison A	Poison gas	None	173.333	Forbidden	Forbidden	1	5	
	Phosphine	Poison A	Flammable gas and Poison gas	None	173.328	Forbidden	Forbidden	1	5	
	Phosphoric acid or Phosphoric Acid Solution	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	Glass carboys in hampers not permitted under deck
	Phosphoric acid triethylamine. See Tri-(1-aziridinyl) phosphine oxide									
	Phosphoric anhydride (phosphorus pentoxide)	Corrosive material	Corrosive	None	173.188	Forbidden	100 pounds	1.2	1.2	Keep dry. Glass bottles not permitted under deck
	Phosphorus, amorphous, red	Flammable solid	Flammable solid	None	173.189	Forbidden	11 pounds	1.2	1.2	
	Phosphorus bromide. See Phosphorus tribromide									
	Phosphorus chloride. See Phosphorus trichloride									
	Phosphorus heptasulfide	Flammable solid	Flammable solid	None	173.225	Forbidden	10 pounds	1.2	1	Separate from oxidizing materials
	Phosphorus oxybromide	Corrosive material	Corrosive	None	173.271	Forbidden	1 quart	1	1	Keep dry. Glass carboys not permitted on passenger vessels
	Phosphorus oxychloride	Corrosive material	Corrosive	None	173.271	Forbidden	1 quart	1	1	Keep dry. Glass carboys not permitted on passenger vessels
	Phosphorus pentachloride, solid	Corrosive material	Corrosive	None	173.191	Forbidden	5 pounds	1	1	Keep dry
	Phosphorus pentasulfide	Flammable solid	Flammable solid, and Dangerous when wet	None	173.225	Forbidden	11 pounds	1.2	1.2	Separate from oxidizing material
	Phosphorus sesquisulfide	Flammable solid	Flammable solid, and Dangerous when wet	None	173.225	Forbidden	11 pounds	1.2	1	Separate from oxidizing materials
	Phosphorus tribromide	Corrosive material	Corrosive	None	173.270	Forbidden	1 quart	1	1	Keep dry. Glass carboys not permitted on passenger vessels
	Phosphorus trichloride	Corrosive material	Corrosive	None	173.271	Forbidden	1 quart	1	1	Keep dry. Glass carboys not permitted on passenger vessels
	Phosphorus trisulfide	Flammable solid	Flammable solid	None	173.225	Forbidden	10 pounds	1.2	1	Separate from oxidizing materials
	Phosphorus, white or yellow, dry	Flammable solid	Flammable solid and Poison	None	173.190	Forbidden	Forbidden	1.2	5	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Phosphorus, white or yellow, in water	Flammable solid	Flammable solid and Poison	None	173.190	Forbidden	25 pounds	1.2	5	Separate from flammable gases or liquids, oxidizing materials or organic peroxides
	Phosphoryl chloride. See Phosphorus oxychloride									
	Photographic film. See Film									
	Photographic flash powder. See Fireworks, special or Low explosives									
	Picrate, dry. See High explosive									
	Picrate of ammonia. See High explosive									
	Picric acid, dry. See High explosive									
	Picric acid, wet, with not less than 10% water	Flammable solid	Flammable solid	None	173.192 173.193	1 pound	25 pounds	1	5	Under deck stowage permitted on cargo vessels if wet with more than 30% water. Stow away from heavy metals and their compounds

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§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pass- enger vessel	(c) Other requirements
	Phoric acid, wet with not less than 10% water, over 25 pounds. See High explosive	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Pinwheel. See Fireworks, common									
	Pivaloyl chloride. See Trimethyl acetylchloride									
	Plastic solvent, n.o.s.	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Plastic solvent, n.o.s.	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Plutonium nitrate solution	Radioactive material	Radioactive (See Sec. 172.403)	173.393	173.396			1.2	1.2	
	Poisonous liquid, n.o.s. or Poison B, liquid, n.o.s.	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1	
	Poisonous liquid or gas, n.o.s.	Poison A	Poison gas	None	173.328	Forbidden	Forbidden	1	5	
	Poisonous solid, n.o.s. or Poison B, solid, n.o.s.	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1	
	Polish, metal, stove, furniture or wood, liquid	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Polish, metal, stove, furniture or wood, liquid	Flammable liquid	Flammable liquid	173.118	173.129	1 quart	55 gallons	1.2	1	
	Polymerizable material			173.21						
	Potassium arsenate, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Potassium arsenite, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Potassium bifluoride solution. See Potassium hydrogen fluoride solution									
	Potassium bromate	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1.2	1.2	Separate from ammonium compounds. Stow away from powdered metals.
	Potassium chlorate (potash chlorate)	Oxidizer	Oxidizer	173.153	173.163	25 pounds	100 pounds	1.2	1.2	Separate from ammonium compounds. Stow away from powdered metals.
	Potassium cyanide, solid	Poison B	Poison	173.370		25 pounds	200 pounds	1.2	1.2	Stow away from acids
	Potassium cyanide solution	Poison B	Poison	173.345	173.332	1 quart	55 gallons	1.2	1.2	Stow away from acids
	Potassium dichloro isocyanurate. See Potassium dichloro-s-triazinetriene									
	Potassium dichloro-s-triazinetriene, dry (containing more than 39% available chlorine)	Oxidizer	Oxidizer	173.153	173.217	50 pounds	100 pounds	1.2	1.2	
A	Potassium dichromate	ORM-A	None	173.505	173.510	No limit	No limit			
A	Potassium fluoride	ORM-B	None	173.505	173.510	No limit	No limit			
	Potassium fluoride solution	Corrosive material	Corrosive	173.244	173.249	1 quart	5 gallons	1.2	1.2	
	Potassium hydrate. See Potassium hydroxide									
	Potassium hydrogen fluoride solution	Corrosive material	Corrosive	173.244	173.249	1 quart	5 gallons	1.2	1.2	
A	Potassium hydrogen sulfate, solid	ORM-B	None	173.505	173.510	25 pounds	100 pounds			
	Potassium hydroxide, dry solid, flake, bead, or granular	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1.2	1.2	Keep dry. Do not stow with metals or alloys such as brass, copper, tin, zinc, aluminum, solder, or lead
	Potassium hydroxide, liquid or solution	Corrosive material	Corrosive	173.244	173.249	1 quart	10 gallons	1.2	1.2	
	Potassium hypochlorite solution. See Hypochlorite solutions containing more than 7% available chlorine by weight									
A	Potassium metabisulfite	ORM-B	None	173.505	173.510	No limit	No limit			
	Potassium, metal	Flammable solid	Flammable solid and Dangerous when wet	None	173.206	Forbidden	25 pounds	1.2	5	Segregation same as for flammable solids labeled Dangerous When Wet
	Potassium, metal liquid alloy	Flammable solid	Flammable solid and Dangerous when wet	None	173.202	Forbidden	1 pound	1.2	5	Segregation same as for flammable solids labeled Dangerous When Wet
	Potassium nitrate	Oxidizer	Oxidizer	173.153	173.182	25 pounds	100 pounds	1.2	1.2	
	Potassium nitrite	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1.2	1.2	Separate from ammonium compounds and cyanides. Stow away from food-stuffs
	Potassium nitrate mixed (fused) with sodium nitrite	Oxidizer	Oxidizer	173.153	173.183	25 pounds	100 pounds	1.2	1.2	Separate from ammonium compounds and cyanides. Stow away from food-stuffs
	Potassium perchlorate	Oxidizer	Oxidizer	173.153	173.219	25 pounds	100 pounds	1.2	1.2	Stow away from powdered metals

§172.101 Hazardous Materials Table (cont'd)

(1) Hazardous materials descriptions and proper shipping names	(2) Hazard class	(3) Label(s) required (if not excepted)	(4) Packaging		(5) Maximum net quantity in one package		(6) Water shipments		
			(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Passenger vessel	(c) Other requirements
Potassium permanganate	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1.2	1.2	Separate from ammonium compounds and hydrogen peroxide Keep dry
Potassium peroxide	Oxidizer	Oxidizer	None	173.194	Forbidden	100 pounds	1.2	1.2	
Potassium sulfide	Flammable solid	Flammable solid	173.153	173.207	25 pounds	300 pounds	1.2	1.2	
Pressurized product. See Compressed gas, n.o.s.									
Primer. See Cannon primer, combination primer, or small-arm primer									
Primer, detonating. See Detonating primer									
Projectile, explosive. See Explosive projectile									
Projectile, gas, nonexplosive. See Chemical ammunition, containing Poison or Irritating Material									
Projectile, gas, smoke, or incendiary, with booster or booster with or without detonating fuze. See Explosive projectile									
Projectile, illuminating, incendiary or smoke, with expelling charge but without bursting charge. See Fireworks, special									
Projectile, sand-loaded, empty or solid. See 173.55									
Propane or Liquefied petroleum gas. See Liquefied petroleum gas									
Propellant explosive	Class A explosive	Explosive A	None	173.64	Forbidden	Forbidden	6	5	
Propellant explosive (solid, Class B, and small-arm primer) See "Propellant explosive, solid"									
Propellant explosive in water (Smokeless powder)	Class B explosive	Explosive B	None	173.93	Forbidden	Forbidden	1.3	5	Magazine storage authorized
Propellant explosive in water, unstable, condemned, or deteriorated (smokeless powder)	Class B explosive	Explosive B	None	173.93	Forbidden	Forbidden	1.3	5	Magazine storage authorized
Propellant explosive, liquid	Class B explosive	Explosive B	None	173.93	Forbidden	10 pounds	1.2	5	Magazine storage authorized
Propellant explosive, solid	Class B explosive	Explosive B	None	173.93	Forbidden	10 pounds	1.3	5	Magazine storage authorized
Propionaldehyde	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
Propionic acid	Corrosive material	Corrosive	173.244	173.245	1 quart	5 gallons	1.2	1.2	Separated by a complete compartment or hold from organic peroxides
Propionic acid solution	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	Separated by a complete compartment or hold from organic peroxides
Propionic anhydride	Corrosive material	Corrosive	173.244	173.245	1 quart	1 quart	1.2	1	Keep dry
Propyl acetate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
Propyl alcohol. See Alcohol, n.o.s.									
Propylamine	Flammable liquid	Flammable liquid	None	173.119	Forbidden	10 gallons	1.3	5	
Propyl chloride	Flammable liquid	Flammable liquid	None	173.119	Forbidden	10 gallons	1.3	5	
Propylene diamine	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
Propylene dichloride	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
Propylene imine, inhibited	Flammable liquid	Flammable liquid	None	173.139	Forbidden	5 pints	1.2	1	
Propylene or Liquefied petroleum gas. See Liquefied petroleum gas									
Propylene oxide	Flammable liquid	Flammable liquid	173.118	173.119	Forbidden	1 gallon	1.3	4	
Propyl formate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
Propyl mercaptan	Flammable liquid	Flammable liquid	None	173.141	Forbidden	10 gallons	1.2	5	
Propyl trichlorosilane	Corrosive material	Corrosive	None	173.280	Forbidden	10 gallons	1	1	Keep dry
Prussic acid. See Hydrocyanic acid (prussic), liquid or unstabilized									
Pyridine	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
Pyrophoric liquid, or Pyrophoric liquids, n.o.s.	Flammable liquid	Flammable liquid	None	173.134	Forbidden	Forbidden	1	5	Shade from radiant heat. Separate from flammable gases, or liquids, oxidizing materials, or organic peroxides

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not accepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Passenger vessel	(c) Other requirements
	Pyro sulfuric chloride	Corrosive material	Corrosive	173.244	173.247	1 quart	1 quart	1	4	Keep dry. Glass carboys not permitted on passenger vessels Shade from radiant heat
	Pyroxylin plastic scrap	Flammable solid	Flammable solid	None	173.195	Forbidden	Forbidden	1	5	
	Pyroxylin plastics, rods, sheets, rolls, or tubes	Flammable solid	Flammable solid	173.197		50 pounds	350 pounds	1.3	1	
	Pyroxylin solution	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Pyroxylin solution	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Pyroxylin solvent, n.o.s.	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Pyroxylin solvent, n.o.s.	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Pyrolicine	Flammable liquid	Flammable liquid	173.118	173.119	Forbidden	10 gallons	1.2	1	
	Quicklime. See Calcium oxide									
	Radioactive device, n.o.s.	Radioactive material	None	173.391				1.2	1.2	
	Radioactive material, fissile, n.o.s.	Radioactive material	Radioactive	173.393	173.396			1.2	1.2	
	Radioactive material, low specific activity or LSA, n.o.s.	Radioactive material	Radioactive	173.392	173.393			1.2	1.2	
	Radioactive material, n.o.s.	Radioactive material	Radioactive	173.393	173.395			1.2	1.2	
	Radioactive material, limited quantity, n.o.s.	Radioactive material	None	173.391				1.2	1.2	
	Radioactive material, special form, n.o.s.	Radioactive material	Radioactive	173.393	173.394			1.2	1.2	
	Rags, oily	Flammable solid	Flammable solid	None	173.199	Forbidden	Forbidden	1.2	1.2	Keep dry. Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Rags, wet	Flammable solid	Flammable solid	None	173.200	Forbidden	Forbidden	1	1	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Railway fusee. See Fusee									
	Railway torpedo. See Torpedo, railway									
	Range oil. See Fuel oil									
	Reducing compound, paint, varnish, lacquer, etc. See *Compound, lacquer, paint, or varnish, etc., removing, reducing, or thinning, liquid									
	Refrigerant gas See Dispersant Gas									
	Refrigerating machine	Nonflammable gas	Nonflammable gas	173.306		No limit	No limit	1.3	1.3	
	Refrigerating machine	Flammable gas	Flammable gas	173.306		No limit	No limit	1.3	1.3	
	Refrigerating machine	Flammable liquid	Flammable liquid	173.130	173.306	No limit	No limit	1.2	1	
	Removing compound, paint, varnish, lacquer, etc. See *Compound, lacquer, paint, or varnish, etc., removing, reducing, or thinning, liquid									
	Resin solution (resin compound, liquid)	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Resin solution (resin compound, liquid)	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	55 gallons	1.2	1	
	Rifle grenade. See Grenade, hand or rifle, explosive									
	Rifle powder. See *Propellant explosive, or Black powder									
	Road asphalt or tar (when heated to or above its flash point). See Asphalt									
	Road asphalt or tar, liquid. See Asphalt, cut back									
	Road oil	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Rocket ammunition with empty projectile	Class B explosive	Explosive B	None	173.90	Forbidden	Forbidden	1.3	5	
	Rocket ammunition with explosive projectile	Class A explosive	Explosive A	None	173.57	Forbidden	Forbidden	6	5	
	Rocket ammunition with gas projectile	Class A explosive	Explosive A	None	173.57	Forbidden	Forbidden	6	5	
	Rocket ammunition with illuminating projectile	Class A explosive	Explosive A	None	173.57	Forbidden	Forbidden	6	5	
	Rocket ammunition with incendiary projectile	Class A explosive	Explosive A	None	173.57	Forbidden	Forbidden	6	5	
	Rocket ammunition with inert loaded projectile	Class B explosive	Explosive B	None	173.90	Forbidden	Forbidden	1.3	5	

§172.101 Hazardous Materials Table (cont'd)

(1)	(2)	(3)	(4)	(5)						
	Rocket ammunition with smoke projectile	Class A explosive	Explosive A	None	173.57	Forbidden	Forbidden	6	5	
	Rocket ammunition with solid projectile	Class B explosive	Explosive B	None	173.90	Forbidden	Forbidden	1.3	5	
	Rocket body, with electric primer or electric squib. See 173.55									
	Rocket engine, liquid	Class B explosive	Explosive B	None	173.95	Forbidden	Forbidden	1.2	5	Magazine storage authorized
	Rocket fireworks. See Fireworks, common									
	Rocket head. See Explosive projectile									
	Rocket motor	Class A explosive	Explosive A	None	173.79	Forbidden	Forbidden	6	5	
	Rocket motor	Class B explosive	Explosive B	None	173.92	Forbidden	Forbidden	1.3	5	
	Roman candle. See Fireworks, common									
W	Resin (colophony) or Resin	ORM-C	None	173.505	173.1060	Forbidden	Forbidden	1.2	1.2	
	Rough ammoniate tankage (less than 7% moisture content)	Flammable solid	Flammable solid	None	173.210	Forbidden	Forbidden	1	5	
	Rough ammoniate tankage 7% or more moisture content	Flammable solid	Flammable solid	None	173.210	Forbidden	Forbidden	1.2	1.2	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides. Temperature of tankage must not exceed 100 deg F.
W	Rubber curing compound (solid)	ORM-C	None	173.505	173.1065			1.2	1.2	
	Rubber scrap or rubber buffings	Flammable solid	Flammable solid	173.153	173.201	10 pounds	10 pounds	1.2	1.2	
	Rubber shoddy, regenerated rubber, or reclaimed	Flammable solid	Flammable solid	173.153	173.201	10 pounds	10 pounds	1.2	1.2	
	Rubidium metal	Flammable solid	Flammable solid and Dangerous when wet	None	173.206	Forbidden	25 pounds	1.2	5	Segregation same as for flammable solid labeled Dangerous when wet
	Rubidium metal, in cartridges	Flammable solid	Flammable solid and Dangerous when wet	173.206		1 pound	25 pounds	1.2	4	Segregation same as for flammable solid labeled Dangerous when wet
	Rum, denatured	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Rust preventive coating	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Safety fuse. See Fuse, safety									
	Safety squib	Class C explosive	Explosive C	None	173.106	50 pounds	150 pounds	1.3	1.3	
	Salute. See Fireworks common or special									
W	Sand acid. See Hydrofluorosilicic acid									
	Sawdust (when dry, clean, and free from oil)	ORM-C	None	173.505	173.1070			1.2	1.2	Keep dry
	Selenic acid, liquid	Corrosive material	Corrosive	None	173.245	Forbidden	5 pints	1.2	1.2	
	Self-lighting cigarette	Flammable solid	Flammable solid	173.21		Forbidden	Forbidden	1.2	1.2	Keep dry
	Self propelled vehicle. See Motor vehicle									
	Shaped charge, commercial. See High explosive 173.65(h)									
	Shellac. See *Paint, enamel, lacquer, stain, shellac, varnish, etc.									
	Shell, fireworks. See Fireworks, common or special									
	Ship, distress signal. See Fireworks, special									
	Signal flare	Class C explosive	Explosive C	None	173.108	50 pounds	200 pounds	1.2	1.2	
	Silicofluoric acid. See Hydrofluorosilicic acid									
	Silicon chloride or silicon tetrachloride	Corrosive material	Corrosive	173.244	173.247	1 quart	1 gallon	1	1	Keep dry. Glass carboys not permitted on passenger vessels
	Silicon chrome, exothermic. See Exothermic silicon chrome									
	Silicon tetrafluoride	Nonflammable gas	Nonflammable gas	173.306	173.302	Forbidden	300 pounds	1	4	Stow away from foodstuffs
	Silver cyanide	Poison B	Poison	173.370		25 pounds	200 pounds	1.2	1.2	Stow away from acids
	Silver nitrate	Oxidizer	Oxidizer	173.153	173.182	25 pounds	100 pounds	1.2	1.2	Stow away from foodstuffs
	Sisal. See Fibers									
	Sludge acid. See Acid, sludge									
	Small arms ammunition	Class C explosive	None	173.101		50 pounds	150 pounds	1.3	1.3	
	Small arms ammunition, irritating (tear gas) cartridge	Class C explosive	Irritant	None	173.101	Forbidden	150 pounds	1.3	1.3	

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
	Small arms primer	Class C explosive	Explosive C	None	173.107	50 pounds	150 pounds	1.3	1.3	
	Smoke candle	Class C explosive	Explosive C	None	173.108	50 pounds	200 pounds	1.3	1.3	
	<i>Smoke generator. See Chemical ammunition, Poison A or B Material</i>									
	Smoke grenade	Class C explosive	Explosive C	None	173.108	50 pounds	150 pounds	1.3	1.3	
	<i>Smokeless powder for cannon or small arms. See Propellant explosive, Class A or B</i>									
	Smokeless powder for small arms (100 pounds or less)	Flammable solid	Flammable solid	173.88	173.197a	Forbidden	Forbidden	1.3	1.3	Segregation same as for explosives
	Smoke pot	Class C explosive	Explosive C	None	173.108	50 pounds	200 pounds	1.3	1.3	
	<i>Smoke projectile with bursting charge. See Explosive projectile</i>									
	<i>Smoke projectile with expelling charge but without bursting charge. See Fireworks, special</i>									
	Smoke signal	Class C explosive	Explosive C	None	173.108	50 pounds	200 pounds	1.3	1.3	
	<i>Soda amant. See High explosive</i>									
	Soda lime, solid	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1.2	1.2	Keep dry
A	Sodium aluminate, solid	ORM-B	None	173.505	173.510 173.800	25 pounds	100 pounds			
*	Sodium aluminate solution	Corrosive material	Corrosive	173.244	173.249	1 quart	5 gallons	1.2	1.2	
	Sodium aluminum hydride	Flammable solid	Flammable solid and Dangerous when wet	None	173.206	Forbidden	25 pounds	1.2	5	Segregation same as for flammable solids labeled Dangerous When Wet
	Sodium amide	Flammable solid	Flammable solid and Dangerous When Wet	None	173.206	Forbidden	25 pounds	1.2	5	Segregation same as for flammable solid labeled Dangerous When Wet
	Sodium arsenate	Poison B	Poison	173.364	173.365 173.368	50 pounds	200 pounds	1.2	1.2	
*	Sodium arsenite (solution) liquid	Poison B	Poison	173.345	173.346	1 quart	55 gallons	1.2	1.2	
	Sodium azide	Poison B	Poison	173.364	173.375	50 pounds	100 pounds	1.2	1.2	Stow away from heavy metals, espe- cially lead and its compounds. Stow separate from acids
	<i>Sodium bisulfate, solid or solution. See appropriate Sodium hydrogen sulfate, entry</i>									
	<i>Sodium bisulfite, solid. See Sodium hydrogen sulfite, solid</i>									
	Sodium bromate	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1.2	1.2	Stow separate from ammonium com- pounds. Stow away from powdered metals
	Sodium chlorate (soda chlorate)	Oxidizer	Oxidizer	173.153	173.163	25 pounds	100 pounds	1.2	1.2	Stow separate from ammonium com- pounds. Stow away from powdered metals
	Sodium chlorite	Oxidizer	Oxidizer	None	173.160	Forbidden	100 pounds	1.2	1.2	Stow separate from ammonium com- pounds. Stow away from powdered metals
*	Sodium chlorite solution (not exceeding 42% sodium chlorite)	Corrosive material	Corrosive	173.244	173.263	1 quart	4 gallons	1.2	1	Glass carboys in hampers not permitted under deck
	Sodium cyanide, solid	Poison B	Poison	173.370		25 pounds	200 pounds	1.2	1.2	Stow away from acids
*	Sodium cyanide solution	Poison B	Poison	173.345	173.352	1 quart	55 gallons	1.2	1.2	Stow away from acids
	<i>Sodium dichloro isocyanurate. See Sodium dichloro-s-triazinetriene</i>									
	<i>Sodium dichloro-s-triazinetriene (dry, containing more than 39% available chlorine)</i>	Oxidizer	Oxidizer	173.153	173.217	50 pounds	100 pounds	1.2	1.2	
A	Sodium dichromate	ORM-A	None	173.505	173.510	No limit	No limit			
	Sodium fluoride, solid	ORM-B	None	173.505	173.510	No limit	No limit			
*	Sodium fluoride solution	Corrosive material	Corrosive	173.244	173.245	1 quart	5 gallons	1.2	1.2	Stow away from acids
	<i>Sodium hydrate. See Sodium hydroxide</i>									
	Sodium hydride	Flammable solid	Flammable solid and Dangerous when wet	None	173.198	Forbidden	25 pounds	1.2	5	Segregation same as for flammable solids labeled Dangerous When Wet
A	Sodium hydrogen sulfate, solid	ORM-B	None	173.505	173.510 173.800	25 pounds	100 pounds			
*	Sodium hydrogen sulfate solution	Corrosive material	Corrosive	173.244	173.245	1 quart	1 gallon	1.2	1.2	

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
A	Sodium hydrogen sulfite, solid	ORM-B	None	173.505	173.800	25 pounds	100 pounds			
	Sodium hydrosulfite (<i>sodium dithionite</i>)	Flammable solid	Flammable solid	173.153	173.204	25 pounds	100 pounds	1.2	1.2	Keep dry. Below deck stowage in metal drums only. Separate from flammable gases, liquids, oxidizing materials, or or- ganic peroxides
	Sodium hydroxide, dry solid, flake, bead, or granular	Corrosive material	Corrosive	173.244	173.245b	25 pounds	200 pounds	1.2	1.2	Keep dry
	Sodium hydroxide, liquid or solution	Corrosive material	Corrosive	173.244	173.249	1 quart	5 gallons	1.2	1.2	
A	Sodium metabisulfite	ORM-B	None	173.505	173.510	No limit	No limit			
	Sodium, metal or metallic	Flammable solid	Flammable solid and Dangerous when wet	None	173.206	Forbid- den	25 pounds	1.2	5	Segregation same as for flammable solids labeled Dangerous When Wet
	Sodium, metal dispersion in organic solvent	Flammable solid	Flammable solid and Dangerous when wet	None	173.230	Forbid- den	10 pounds	1.2	5	Segregation same as for flammable solids labeled Dangerous When Wet
	Sodium, metal liquid alloy	Flammable solid	Flammable solid and Dangerous when wet	None	173.202	Forbid- den	1 pound	1.2	5	Segregation same as for flammable solids labeled Dangerous When Wet
	Sodium methylate, alcohol mixture	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Sodium methylate, alcohol mixture	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Sodium methylate, alcohol mixture	Corrosive material	Corrosive	173.244	173.245	1 quart	1 quart	1.2	1.2	
	Sodium methylate, dry	Flammable solid	Flammable solid	173.153	173.154	25 pounds	100 pounds	1.2	1	Segregation same as for flammable solids labeled Dangerous When Wet
	Sodium monoxide, solid	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1.2	1.2	Keep dry
	Sodium nitrate	Oxidizer	Oxidizer	173.153	173.182	25 pounds	100 pounds	1.2	1.2	
	Sodium nitrate bags. See Bags, sodium nitrate, empty and unwashed									
	Sodium nitrite	Oxidizer	Oxidizer	173.153	173.154 173.234	25 pounds	100 pounds	1.2	1.2	Stow separate from ammonium com- pounds and cyanides. Bagged material not permitted on passenger vessels
	Sodium nitrite mixed (<i>fused</i>) with potassium nitrate	Oxidizer	Oxidizer	173.153	173.183	25 pounds	100 pounds	1.2	1.2	Stow separate from ammonium com- pounds and cyanides
	Sodium nitrite mixture (<i>sodium nitrate, sodium nitrite, and potassium nitrate</i>)	Oxidizer	Oxidizer	173.153	173.234	25 pounds	100 pounds	1.2	1.2	Stow separate from ammonium com- pounds and cyanides
A	Sodium pentachlorophosphate	ORM-A	None	173.505	173.510	No limit	No limit			
	Sodium perchlorate	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1.2	1.2	Stow away from powdered metals
	Sodium permanganate	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1.2	1.2	Separate from ammonium compounds and hydrogen peroxide
	Sodium peroxide	Oxidizer	Oxidizer	None	173.187	Forbid- den	100 pounds	1.2	1	Keep dry. Stow away from powdered metals, permanganates, combustible packing of other cargo, and combusti- ble foodstuffs
	Sodium phaeolate, solid	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1.2	1.2	
	Sodium phosphide	Flammable solid	Flammable solid and Dangerous when wet	None	173.154	Forbid- den	25 pounds	1	5	
	Sodium picramate, wet (<i>with at least 20% water</i>)	Flammable solid	Flammable solid	None	173.205	Forbid- den	25 pounds	1.2	5	Stow away from heavy metals, espe- cially lead, and its compounds
	Sodium potassium alloy	Flammable solid	Flammable solid and Dangerous when wet	None	173.206	Forbid- den	25 pounds	1.2	5	Under deck stowage must be readily ac- cessible. Segregation same as for flammable solids labeled Dangerous When Wet
	Sodium sulfate, acid. See appropriate									
	Sodium hydrogen sulfate entry									
	Sodium sulfide, anhydrous	Flammable solid	Flammable solid	173.153	173.207	25 pounds	300 pounds	1.2	1.2	Stow separate from liquid acids. Separate from flammable gases or liquids, oxidizing materials or organic peroxides
	Solvent, n.o.s.	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Solvent, n.o.s.	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Sparklers. See Fireworks, common									
	Spent iron mass. See Iron mass, spent									
	Spent iron sponge. See Iron sponge, spent									
	Spent mixed acid. See Nitrating acid									
	Spent sulfuric acid. See sulfuric acid, spent									

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\$172-101 Hazardous Materials Table (cont'd)

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RULES AND REGULATIONS

§ 172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard. class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
	Tankage fertilizer	Flammable solid	Flammable solid	None	173.209	Forbidden	Forbidden	1	5	Keep dry. Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Tankage, rough ammoniate	Flammable solid	Flammable solid	None	173.210	Forbidden	Forbidden	1	5	Keep dry. Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	<i>Tank car, containing residual phosphorus and filled with water or inert gas. See 173.190</i>									
	<i>Tank car, empty (previously used for a hazardous material). See 173.29</i>									
	<i>Tank car, empty (previously used for a Poison A material). See 172.510 and 173.29</i>									
	<i>Tank, portable, empty (previously used for a hazardous material). See 172.510, 173.29, and 172.514</i>									
	<i>Tank truck, empty. See 172.510, 172.514 and 173.29.</i>									
	Tar, liquid	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Tar, liquid	Flammable liquid	Flammable liquid	173.118	173.131	1 quart	10 gallons	1.2	1	
	Tear gas ammunition. See Chemical ammunition (containing an irritant material)									
	Tear gas candle	Irritating material	Irritant	None	173.385	Forbidden	75 pounds	1	5	Stow away from living quarters
	<i>Tear gas cartridge. See Small arms ammunition (irritating (tear gas) cartridge</i>									
	<i>Tear gas grenade. See Grenade, tear gas</i>									
	<i>Tertiary alcohol. See Alcohol, n.o.s.</i>									
	Tertiary butyl isopropyl benzene hydroperoxide	Organic peroxide	Organic peroxide	173.153	173.224	1 quart	1 quart	1.2	4	
	Tetrachloroethane	ORM-A	None	173.505	173.620	1 quart	10 gallons	1.2	1.2	
	Tetrachloroethylene or Perchloroethylene	ORM-A	None	173.505	173.310 173.605	10 gallons	55 gallons			
	Tetrathyl dithio pyrophosphate and compressed gas mixture	Poison A	Poison gas	None	173.334	Forbidden	Forbidden	1	5	Shade from radiant heat. Stow away from living quarters. Segregation same as for nonflammable gases
	Tetrathyl dithio pyrophosphate, liquid	Poison B	Poison	None	173.358	Forbidden	1 quart	1	5	
	Tetrathyl dithio pyrophosphate mixture, dry	Poison B	Poison	None	173.377	Forbidden	200 pounds	1	5	
	Tetrathyl dithio pyrophosphate mixture, liquid	Poison B	Poison	None	173.359	Forbidden	1 quart	1	5	
	Tetrathyl lead, liquid (including flash point for export shipment by water)	Poison B	Poison	None	173.334	Forbidden	55 gallons	1	5	If flash point is 141 deg F. or less, segregation must be the same as for flammable liquids
	Tetraethyl pyrophosphate and compressed gas mixture	Poison A	Poison gas	None	173.334	Forbidden	Forbidden	1	5	Shade from radiant heat. Stow away from living quarters. Segregation same as for nonflammable gases
	Tetraethyl pyrophosphate, liquid	Poison B	Poison	None	173.358	Forbidden	1 quart	1.2	5	
	Tetraethyl pyrophosphate mixture, dry	Poison B	Poison	None	173.377	Forbidden	200 pounds	1.2	5	
	Tetraethyl pyrophosphate mixture, liquid	Poison B	Poison	None	173.359	Forbidden	1 quart	1.2	5	
	Tetrafluoroethylene, inhibited	Flammable gas	Flammable gas	173.306	173.304	Forbidden	300 pounds	1.2	1.2	Stow away from living quarters
	1,2,3,6-Tetrahydrobenzaldehyde	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
	Tetrahydrofuran	Flammable liquid	Flammable liquid	None	173.119	Forbidden	10 gallons	1.3	5	
	Tetramethyl ammonium hydroxide, liquid	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
	Tetramethyl methylene diamine	ORM-A	None	173.505	173.510	No limit	No limit	1	5	Shade from radiant heat. Stow away from foodstuffs
	Tetranitromethane	Oxidizer	Oxidizer	None	173.203	Forbidden	Forbidden	1	5	
	<i>Tetrazene (guanyl nitrosamine guanyletetrazene). See Initiating explosive Tetryl. See High explosive</i>									
	Textile treating compound mixture, liquid	Corrosive material	Corrosive	173.244	173.245 173.249a	1 quart	10 gallons	1.2	1.2	
	Textile waste. See Cotton waste									
	Textile waste, wet	Flammable solid	Flammable solid	None	173.211	Forbidden	Forbidden	1.2	1.2	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Thallium sulfate, solid, n.o.s.	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	

§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific require- ments	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
	Thallium sulfate, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1,2	1,2	
	Thinner for rust preventive coating. See *Rust preventive coating									
	Thinning compound, paint, varnish, lacquer, etc. See *Paint, enamel, lacquer, stain, shellac, varnish, etc.									
	Thiocarbonyl chloride. See Thiophosgene									
	Thioglycolic acid	Corrosive material	Corrosive	173.244	173.245	1 quart	1 gallon	1,2	1,2	Glass carboys in hampers not permitted under deck
	Thionyl chloride	Corrosive material	Corrosive	None	173.247	Forbidden	1 gallon	1	1	Keep dry. Glass carboys not permitted on passenger vessels
	Thiophosgene	Poison B	Poison	None	173.356	Forbidden	1 gallon	1	5	Shade from radiant heat
	Thiophosphoryl chloride	Corrosive material	Corrosive	None	173.271	Forbidden	1 quart	1	1	Keep dry. Glass carboys not permitted on passenger vessels
A	Thiram	ORM-A	None	173.505	173.510	No limit	No limit			
	Thorium metal, pyrophoric	Radioactive material	Radioactive and Flammable solid	173.226	173.226			1,2	1,2	
	Thorium nitrate	Radioactive material	Radioactive and Oxidizer	173.392	173.393			1,2	1,2	Separate longitudinally by a complete hold or compartment from explosives
	Time fuze. See Fuze, time, non- detonating									
	Tin chloride, fuming. See Tin tetrachloride, anhydrous									
	Tinning flux. See *Zinc chloride solution									
	Tin perchloride. See Tin tetrachloride, anhydrous									
	Tin tetrachloride, anhydrous	Corrosive material	Corrosive	173.244	173.247	1 quart	1 quart	1	1	Keep dry. Glass carboys not permitted on passenger vessels
	Titanium metal powder, dry or wet with less than 20% water	Flammable solid	Flammable solid	None	173.208	Forbidden	75 pounds	1,2	5	
	Titanium metal powder, wet with 20% or more water	Flammable solid	Flammable solid	None	173.208	Forbidden	150 pounds	1,2	5	
	Titanium sulfate solution containing not more than 45% sulfuric acid	Corrosive material	Corrosive	173.244	173.297	1 quart	1 gallon	1	4	Shade from radiant heat. Keep dry
	Titanium tetrachloride	Corrosive material	Corrosive	173.244	173.247	1 quart	10 gallons	1	1	Keep dry. Glass carboys not permitted on passenger vessels
	Toluene (toluol)	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,2	1	
A	Toluenediamine	ORM-A	None	173.505	173.510	No limit	No limit			
	Toluene diisocyanate	Poison B	Poison	173.345	173.346	Forbidden	55 gallons	1,3	1,3	Shade from radiant heat
	Toluene sulfonic acid, liquid	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1,2	1,2	
	Torch. See Fireworks, common									
	Torpedo, railway	Class B explosive	Explosive B	None	173.91	Forbidden	200 pounds	1,2	1,2	Passenger vessels in metal lockers only
	Toy caps	Class C explosive	Explosive C	None	173.100 173.109	50 pounds 150 pounds	150 pounds 150 pounds	1,3	1,3	
	Toy propellant device	Class C explosive	Explosive C	None	173.111	50 pounds	150 pounds	1,3	1,3	
	Toy smoke device	Class C explosive	Explosive C	None	173.111	50 pounds	150 pounds	1,3	1,3	
	Toy torpedo. See Fireworks, special									
	Tracer	Class C explosive	Explosive C	None	173.105	50 pounds	150 pounds	1,3	1,3	
	Tracer fuze	Class C explosive	Explosive C	None	173.105	50 pounds	150 pounds	1,3	1,3	
	Tractor. See Motor vehicle									
	Trailer or truck body with refrigeration or heating equipment. See Motor vehicle									
	Treated paper (manufactured article properly dried to prevent spontaneous heating). See Oiled material									
	Treated textile (manufactured article properly dried to prevent spontaneous heating). See Oiled material									
	Trichloroacetic acid, solid	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1,2	1	
	Trichloroacetic acid solution	Corrosive material	Corrosive	173.244	173.245	1 quart	1 quart	1,2	1,2	Glass carboys in hampers not permitted under deck
A	Trichloroethylene	ORM-A	None	173.505	173.510 173.603	10 gallons	55 gallons			
	Trichlorosilane	Flammable liquid	Flammable liquid	None	173.136	Forbidden	10 gallons	1	5	Segregation same as for flammable solids labeled Dangerous When Wet
	Trichloro-s-triazine trione (dry, containing over 30% available chlorine)	Oxidizer	Oxidizer	173.153	173.217	50 pounds	100 pounds	1,3	1,3	Keep dry

§172.101 Hazardous Materials Table (cont'd)

(1) W/A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Passenger vessel	(c) Other requirements
	(mono-Trichloro) tetra- (monopotassium dichloro)-penta-s-tri azinetriene, dry (containing over 39% available chlorine)	Oxidizer	Oxidizer	173.153	173.217	50 pounds	100 pounds	1.3	1.3	Keep dry
	Trick matches	Class C explosive	Explosive C	None	173.111	Forbidden	Forbidden	1.3	1.3	
	Trick noise maker, explosive	Class C explosive	Explosive C	None	173.111	50 pounds	150 pounds	1.3	1.3	
	Triethylamine	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Trifluorochloroethylene	Flammable gas	Flammable gas	173.306	173.304 173.314	Forbidden	10 gallons	1.2	1	
	Trimethyl acetyl chloride	Corrosive material	Corrosive	173.244	173.247	1 quart	1 quart	1.2	1.2	
	Trimethylamine, anhydrous	Flammable gas	Flammable gas	173.306	173.304 173.314 173.315	Forbidden	300 pounds	1	4	
	Trimethylamine, aqueous solution	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	Stow away from mercury and mercury compounds
	Trimethylchlorosilane	Flammable liquid	Flammable liquid	None	173.135	Forbidden	10 gallons	1.2	1	
	Trinitrobenzene, dry. See High explosive									
	Trinitrobenzene, wet containing at least 10% water	Flammable solid	Flammable solid	173.212		1 pound	1 pound	1	4	Stow away from heavy metals and their compounds
	Trinitrobenzoic acid, dry. See High explosive									
	Trinitrobenzoic acid, wet, containing at least 10% water	Flammable solid	Flammable solid	None	173.192 173.193	1 pound	25 pounds	1	3	Stow away from heavy metals and their compounds
	Trinitrobenzoic acid, wet, containing at least 10% water, over 25 pounds in one outside packaging. See High explosive									
	Trinitroresorcinol. See High explosive									
	Trinitrotoluene, dry. See High explosive									
	Trinitrotoluene, wet containing at least 10% water	Flammable solid	Flammable solid	173.212		1 pound	1 pound	1	4	Stow away from heavy metals and their compounds
	Tri-(1-aziridinyl) phosphine oxide	Corrosive material	Corrosive	173.244	173.299a	1 quart	1 gallon	1	1	Keep dry. Glass carboys not permitted on passenger vessels
	Turpentine	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Turpentine	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1.2	
	Turpentine substitute	Combustible liquid	None	173.118a	None	No limit	No limit	1.2	1.2	
	Turpentine substitute	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
W	Twisted jute packing (rupe) (treated or untreated). See Oakum									
	Uranium hexafluoride, fissile (containing more than 0.7% U-235)	Radioactive material	Radioactive and corrosive	173.393	173.396			1.2	1.2	
	Uranium hexafluoride, low specific activity (containing 0.7% or less U-235)	Radioactive material	Radioactive and corrosive	173.392	173.393			1.2	1.2	
	Uranium metal, pyrophoric	Radioactive material	Radioactive and Flammable solid	173.392	173.393 173.396			1.2	1.2	
	Uranyl nitrate hexahydrate solution	Radioactive material	Radioactive and corrosive	173.392	173.393 173.395 173.396			1.2	1.2	
	Uranyl nitrate, solid	Radioactive material	Radioactive and oxidizer	173.392	173.393 173.396			1.2	1.2	Separate longitudinally by an interven- ing hold or compartment from explo- sives
	Urea nitrate, dry. See High explosive									
	Urea nitrate, wet with 10% or more water	Flammable solid	Flammable solid	None	173.192 173.193	1 pound	25 pounds	1.2	1.2	
	Urea nitrate, wet with 10% or more water, over 25 pounds in one outside packaging. See High explosive									
	Urea peroxide	Organic peroxide	Organic peroxide	173.153	173.227	2 pounds	25 pounds	1	4	Keep dry. Shade from radiant heat
	Valeric acid	Corrosive material	Corrosive	173.244	173.245	1 quart	10 gallons	1.2	1.2	
	Valeryl chloride	Corrosive material	Corrosive	173.244	173.245	1 quart	1 gallon	1.2	1.2	
	Vanadium oxytrichloride	Corrosive material	Corrosive	173.244	173.247a	Forbidden	1 quart	1	4	Shade from radiant heat
	Vanadium tetrachloride	Corrosive material	Corrosive	173.244	173.247a	Forbidden	1 quart	1	4	Shade from radiant heat
	Varnish. See *Paint, enamel, lacquer, stain, shellac, varnish, etc.									
	Varnish drier. See *Paint drier, liquid									

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§172.101 Hazardous Materials Table (cont'd)

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a)	(b)	(a)	(b)	(a)	(b)	(c)
				Exceptions	Specific requirements	Passenger carrying aircraft or railroad	Cargo only aircraft	Cargo vessel	Passenger vessel	Other requirements
	<i>Varnish remover or reducer. See</i> *Compound, lacquer, paint or varnish removing, reducing, or thinning liquid <i>Varnish thinning compound. See</i> *Compound, lacquer, paint, or varnish removing, reducing, or thinning liquid Very signal cartridge	Class C ² explosive	Explosive C	None	173.102	50 pounds	200 pounds	1,3	1,3	
	Vinyl acetate	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,2	1	
	Vinyl chloride	Flammable gas	Flammable gas	173.306	173.304 173.314 173.315	Forbidden	300 pounds	1,2	4	Stow away from living quarters
	Vinyl ethyl ether, inhibited	Flammable liquid	Flammable liquid	None	173.119	Forbidden	1 gallon	1,3	5	
	Vinyl fluoride, inhibited	Flammable gas	Flammable gas	173.306	173.304 173.314 173.315	Forbidden	300 pounds	1	4	
	Vinylidene chloride, inhibited	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,3	4	
	Vinyl isobutyl ether	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,2	1	
	Vinyl methyl ether, inhibited	Flammable gas	Flammable gas	173.306	173.304 173.314	Forbidden	20 pounds	1,2	1	Stow away from living quarters
	Vinyl trichlorosilane	Flammable liquid	Flammable liquid	None	173.135	Forbidden	10 gallons	1,2	1	
	Vitriol, oil of. See Sulfuric acid									
	Waste paper, wet	Flammable solid	Flammable solid	None	173.186	Forbidden	Forbidden	1,2	1,2	Separate from flammable gas or liquids, oxidizing materials, or organic peroxides
	Waste textile, wet	Flammable solid	Flammable solid	None	173.211	Forbidden	Forbidden	1,2	1,2	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Waste wool, wet	Flammable solid	Flammable solid	None	173.213	Forbidden	Forbidden	1,2	1,2	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Water reactive solid, n.o.s.	Flammable solid	Flammable solid and Dangerous when wet	173.153	173.154	Forbidden	25 pounds	1,2	4	Segregation same as for flammable solids labeled Dangerous When Wet
	Water treatment compounds, liquid	Corrosive material	Corrosive	173.244	173.249	1 quart	10 gallons	1	1	
	Wax, liquid	Combustible liquid	None	173.118a	None	No limit	No limit	1,2	1,2	
	<i>Wet hair. See Hair, wet</i> <i>Wet textile waste. See Waste textile, wet</i> White acid (ammonium bifluoride and hydrochloric acid mixture). See Sawdust	Corrosive material	Corrosive	173.244	173.264	1 quart	1 gallon	1	1	
	<i>Wood filler. See Paint, varnish, lacquer, stain, shellac enamel, etc.</i> Wood shavings (when dry, clean and free from oil). See Sawdust Wool waste. See Cotton waste Wool waste, wet. See Waste wool, wet									
	Xenon	Nonflammable gas	Nonflammable gas	173.306	173.302	150 pounds	300 pounds	1,2	1,2	
	X-ray film. See Film									
	Xylene (xylol)	Flammable liquid	Flammable liquid	173.118	173.119	1 quart	10 gallons	1,2	1	
	Xylyl bromide	Irritating material	Irritant	None	173.382	Forbidden	75 pounds	1	5	Stow away from living quarters
A	Yeast, active, in liquid or pressed form	ORM-C	None	None	173.1085	No limit	No limit	1,3	5	This material may be forbidden in water transportation by certain countries
	Zinc ammonium nitrate	Oxidizer	Oxidizer	None	173.228	25 pounds	100 pounds	1,3	5	
	Zinc arsenate	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1,2	1,2	
	Zinc arsenite, solid	Poison B	Poison	173.364	173.365	50 pounds	200 pounds	1,2	1,2	
	Zinc chlorate	Oxidizer	Oxidizer	173.153	173.163	25 pounds	100 pounds	1,2	1,2	Stow separate from ammonium com- pounds and away from powdered metals
	Zinc chloride solution	Corrosive material	Corrosive	173.244	173.245	1 quart	1 quart	1,2	1,2	
	Zinc cyanide	Poison B	Poison	173.370		25 pounds	200 pounds	1,2	1,2	Stow away from acids
	<i>Zinc ethyl. See Pyrophoric liquids, n.o.s.</i> Zinc murexide solution. See Zinc chloride solution Zinc nitrate. See Nitrates, n.o.s.									

§172.101 Hazardous Materials Table (cont'd)

(1) * W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Pas- senger vessel	(c) Other requirements
	Zinc permanganate	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1.2	1.2	Separate from ammonium compounds and hydrogen peroxide
	Zinc peroxide	Oxidizer	Oxidizer	173.153	173.154	25 pounds	100 pounds	1.2	1.2	Keep dry
	Zirconium hydride	Flammable solid	Flammable solid and Dangerous when wet	None	173.206	Forbidden	150 pounds	1.2	5	Segregation same as for flammable solids labeled Dangerous When Wet
	Zirconium metal, dry, chemically produced, finer than 20 mesh particle size	Flammable solid	Flammable solid	None	173.214	Forbidden	75 pounds	1	5	Separate from flammable gases or liquids, oxidizing materials or organic peroxides
	Zirconium metal, dry, mechanically produced, finer than 270 mesh particle size	Flammable solid	Flammable solid	None	173.214	Forbidden	75 pounds	1	5	Separate from flammable gases or liquids, oxidizing materials or organic peroxides
	Zirconium, metal, liquid, suspensions	Flammable liquid	Flammable liquid	None	173.140	Forbidden	5 gallons	1	5	
	Zirconium metal, wet, chemically produced, finer than 20 mesh particle size	Flammable solid	Flammable solid	None	173.214	Forbidden	150 pounds	1.2	5	
	Zirconium metal, wet mechanically produced, finer than 270 mesh particle size	Flammable solid	Flammable solid	None	173.214	Forbidden	150 pounds	1.2	5	
	Zirconium picramate, wet with at least 20% of water	Flammable solid	Flammable solid	None	173.216	Forbidden	25 pounds	1	1	Stow away from heavy metals and their salts
	Zirconium scrap (borings, clippings, shavings, sheets, or turnings)	Flammable solid	Flammable solid	173.153	173.220	Forbidden	Forbidden	1	4	Separate from flammable gases or liquids, oxidizing materials, or organic peroxides
	Zirconium tetrachloride, solid	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1.2	1.2	

6. In § 172.201 the introductory text of paragraph (a) (1) and paragraph (a) (1) (ii) are revised to read as follows:

§ 172.201 General entries.

(a) * * *

(1) When a hazardous material and a material not subject to the requirements of this subchapter are described on the same shipping paper, the hazardous material description entries required by § 172.202 and those additional entries that may be required by § 172.203.

(ii) Must be entered in a color that clearly contrasts with any description of a material not subject to the requirements of this subchapter on the shipping paper except that a description on a reproduction of a shipping paper may be highlighted, rather than printed, in a contrasting color. (The provisions of this paragraph apply only to the basic description required by § 172.202(a) (1) and (2).) or

6. In § 172.203 paragraphs (e) and (g) (1) are revised; paragraph (g) (2) is deleted; paragraph (g) (3) is redesignated (g) (2) as follows:

§ 172.203 Additional description requirements.

(e) *Empty packagings.* For other than a tank car, the description on the shipping paper for an empty packaging containing the residue of a hazardous material may contain the word(s) "EMPTY": or "EMPTY: Last contained * * *" followed by the name of the hazardous material last contained in the packaging. This entry may be before or after the basic description. For empty tank cars, see § 174.25(c) of this subchapter.

(g) * * *

(1) The shipping paper for a rail car containing a hazardous material must contain the notation "Placarded" followed by the name of the placard required for the rail car.

(2) The shipping paper for each specification DOT 112A or 114A tank car (without head shields) containing a flammable compressed gas must contain the notation, "DOT 112A" or "DOT 114A," as appropriate, and either "Must be handled in accordance with FRA E.O. No. 5" or "Shove to rest per E.O. No. 5."

7. In § 172.204 the introductory text of paragraph (a) is revised to read as follows:

§ 172.204 Shipper's certification.

(a) *General.* Except as provided in paragraphs (b) and (c) of this section, each person who offers a hazardous material for transportation shall certify that the material offered for transportation is in accordance with this subchap-

ter by printing (manually or mechanically) the following statement on the shipping paper containing the required shipping description:

8. In § 172.304 the heading is revised to read as follows:

§ 172.304 Marking requirements.

9. In § 172.306 the heading and paragraph (a) (1) are revised as follows:

§ 172.306 Consignee's or consignor's name and address.

(a) * * *

(1) Transported by highway and will not be transferred from one motor carrier to another, or

10. In § 172.312 the introductory text of paragraph (a) is revised to read as follows:

§ 172.312 Liquid hazardous materials.

(a) Except as provided in this section and for limited quantities of flammable liquids packed in inside packagings of one quart or less, each package having an inside packaging containing liquid hazardous materials must be—

11. § 172.328 is revised to read as follows:

§ 172.328 Cargo tanks.

(a) *Size of marking.* When required to be marked, each cargo tank containing a hazardous material must be legibly marked in lettering two inches (50.8 mm.) or more in height.

(b) *Required markings: Hazardous materials other than gases.* When transporting a hazardous material other than a compressed gas in a cargo tank required by Part 173 of this subchapter to be marked with the proper shipping name of the contents, it must be marked as specified in this Part on each end and each side.

(c) *Required markings: Gases.* Each cargo tank transporting flammable or nonflammable compressed gas subject to this subchapter must be marked as specified in this Part on each end and each side with—

(1) The proper shipping name of the gas, or

(2) An appropriate common name for the material such as "Refrigerant Gas."

(d) *QT/NQT marking for MC 330 and MC 331 cargo tanks.* Each specification MC 330 and MC 331 cargo tank must be appropriately marked "QT" or "NQT" to indicate it is constructed of quenched and tempered steel (QT) or other than quenched and tempered steel (NQT). These markings must be placed near the specification identification plate.

(e) A cargo tank marked with the name of a specific hazardous material may not be used to transport any other material unless the marking is removed,

or changed to identify the hazardous material the cargo tank contains, whichever is appropriate.

12. In § 172.330 the introductory text of paragraph (a) and paragraphs (c) (1) and (2) and (d) are revised; and paragraph (e) is added to read as follows:

§ 172.330 Tank cars.

(a) Except as provided in paragraph (e) of this section, when required to be marked by Parts 173 or 179 of this subchapter, each tank car and tank car tank used to transport a hazardous material must be marked as specified in this subpart, with the—

(c) * * *

(1) Affixed to both sides of the tank car tank, and

(2) Except for tank cars transporting DOT 106 and 110 multi-unit tank car tanks, readily visible when viewed from each side of the tank car.

(d) A tank car tank marked with the name of a specific hazardous material may not be used to transport any other material unless the marking is removed, or changed to identify the hazardous material the tank car tank contains, whichever is appropriate.

(e) For a DOT 106 or 110 tank car tank, marking is not required when the CHLORINE label is used as provided in § 172.405(b).

13. § 172.400 paragraph (b) (6) is revised to read as follows:

§ 172.400 General labeling requirements.

(b) * * *

(6) Portable tank which is placarded in accordance with § 172.514.

§ 172.406 [Amended]

14. In § 172.406 paragraph (a) is amended by changing the word "market" in the fifth line to read "marked."

15. In § 172.504 paragraph (a) is revised; Table 1 is amended by revising the heading, by revising and adding additional reference to footnotes 3 and 4, and by adding a new footnote 6; Table 2 is amended by revising the heading and footnote 6; and paragraph (c) (1) is revised to read as follows:

§ 172.504 General placarding requirements.

(a) Except as otherwise provided in this subchapter, each motor vehicle, rail car, and freight container containing any quantity of a hazardous material must be placarded on each end and each side with the type of placards specified in the following tables and other placarding requirements of this subpart, including the specifications for the placards named in the tables and described in detail in §§ 172.519 through 172.558.

TABLE 1

If the motor vehicle, rail car, or freight container contains a material classed (described) as—	The motor vehicle, rail car, or freight container must be placarded on each side and each end—
--	--

RADIOACTIVE
and CORROSIVE
RADIOACTIVE
and CORROSIVE

FLAMMABLE SOLID "W" placard is required only when the DANGEROUS WHEN WET label is specified in § 172.101 for a material classed as a Flammable solid.

Applies only to any quantity of packages bearing the RADIOACTIVE YELLOW III label. (See § 172.403.)

CORROSIVE placard not required for shipments of less than 1000 pounds gross weight.

TABLE 2

If the motor vehicle, rail car, or freight container contains a material classed (described) as—	The motor vehicle, rail car, or freight container must be placarded on each side and each end—
--	--

See § 173.245(b) of this subchapter for authorized exemptions.

(c)

(1) Motor vehicle, or a freight container if transported by highway only, containing less than 1,000 pounds (aggregate gross weight) of one or more materials covered by Table 2, or

16. In § 172.508, paragraph (a) is revised to read as follows:

§ 172.508 Placarding and affixing placards: rail.

(a) Each person offering a hazardous material for transportation by rail shall affix to the rail car containing the material, the placards specified by this subpart for the material unless the placards already displayed on motor vehicles, transport containers, or portable tanks that are on a rail car comply with §§ 172.502 and 172.504 as these sections pertain to placarding the rail car.

17. In § 172.512 the freight container placarding table is deleted; paragraph (b) is amended by changing reference "§ 172.405" to read "§ 172.406(e) (3)" in the eighth line; paragraph (a) is revised as follows:

§ 172.512 Freight container.

(a) Capacity of 640 cubic feet or more. Each person who offers for transportation a hazardous material in a freight container having a capacity of 640 cubic feet or more shall affix to the freight container the placards specified for the material in accordance with § 172.504. However,

(1) The placarding exception provided in § 172.504 (c) (1) applies, and

(2) The placarding exception provided by subparagraphs (c) (1) and (c) (2) of § 172.504 applies to each freight container being transported for delivery to a consignee immediately following an air or water shipment.

§ 172.514 [Amended]

18. § 172.514 paragraph (a) is amended by changing the section reference in the first sentence to read "§ 172.504(a)."

Appendix B—Part 172 [Amended]

19. In Appendix B To Part 172, paragraph 1.(c) (10) is amended by removing the word "COMBUSTIBLE" from the 7th line and adding the words "FLAMMABLE SOLID" and "FLAMMABLE SOLID W" in place thereof.

PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

19a. In the Table of Sections, § 173.338 is revised as follows:

Sec.
173.338 [Reserved].

20. § 173.6 paragraph (b) (3) is revised to read as follows:

§ 173.6 Shipments by air.

(b)

(3) For any packaging with a capacity of 110 gallons or less containing liquids, sufficient outage (ullage) must be provided to prevent liquid contents from completely filling the packaging at 130°F. The primary packaging (which may include composite packaging) for which retention of the liquid is the basic function, must be capable of withstanding, without leakage, an internal absolute pressure of no less than 26 lbs./sq. inch or no less than the sum of the absolute vapor pressure of the contents at 130°F. (55°C.) and the atmospheric pressure at sea level, whichever is greater.

§ 173.8 [Amended].

21. In § 173.8 paragraph (b) is amended by changing "ETC" in the last sentence to read "ETC."

22. § 173.29 is revised to read as follows:

§ 173.29 Empty packaging, portable tanks, cargo tanks, and tank cars.

(a) Empty cylinders, barrels, kegs, drums, or other containers, except carboys (see paragraph (b) of this section) previously used for the shipment of any hazardous materials, as defined in this Part, if authorized for reuse must have all openings including removable heads, and filling and vent holes, tightly closed before being offered for transportation. Small quantities of the material with which containers were loaded may remain in "empty" containers. When the vapors remaining therein are unstable, it is permissible to add sufficient inert gas to render the vapors stable. They may be

loaded in open or stock cars when desired. Cars should not be placarded but lighted open-flame lanterns or other open-flame lights should be kept away.

(b) Carboys previously used for the shipment of corrosive liquids, when offered to carriers for transportation as "empty" carboys, must have been thoroughly (completely) drained.

(c) Empty bottles, other than carboys previously used for the shipment of corrosive liquids, must be securely stoppered.

(d) Any packaging or accessory which has been used for a shipment of radioactive materials and which contains residual internal radioactive contamination, when shipped as empty, must be securely closed. The external surface must be free of significant removable radioactive contamination as provided in § 173.397(a). The radiation at the external surface of the packaging must not exceed 0.5 millirem per hour. The "Empty" label, described in § 172.450 of this subchapter, must be affixed to the packaging.

(e) Unless otherwise specifically provided, any empty packaging offered for transportation (see paragraph (a) of this section) bearing labels described in §§ 172.411 through 172.446 (except § 172.450 of this subchapter) must have these labels removed, obliterated, or completely covered. The label described in § 172.450 of this subchapter is authorized for this latter purpose. Each packaging which last contained explosives and on which the word "EXPLOSIVES" or the shipping name is printed, stenciled, or otherwise marked or applied, when shipped as empty, must have this marking completely covered or obliterated if shipped in less-than-carload or less-than-truckload lots, or on open-top or flat cars, or on open-top or flat bed motor vehicles or trailers. Covering or obliteration of these labels and markings is not required for carload or truckload shipments made in closed cars or van-type motor vehicles when loaded by the shipper and unloaded by the consignee or their authorized agents.

(f) An empty portable tank, cargo tank, tank car or multi-unit tank car tank may not be offered for transportation unless—

(1) Each opening is tightly closed except heater, coil inlet and outlet pipes of empty tank cars; and

(2) Except as otherwise specified in this subchapter it is offered for transportation in the same manner as when it previously contained a greater quantity of a hazardous material. This requirement, as well as other provisions in this subchapter, does not apply to any tank that has been cleaned or purged of all hazardous materials residue or when it is reloaded with a material not subject to this subchapter.

§ 173.33 [Amended].

23. In § 173.33 paragraph (c) is deleted; paragraphs (d) through (i) are redesignated (c) through (h) respectively.

24. In § 173.116 paragraph (c) is deleted as follows:

§ 173.116 Outage.

(c) Deleted.

25. In § 173.119 the introductory text of paragraph (a) and paragraph (d) are revised; and paragraphs (m) (10), (11), (12), (13), and (15) are amended by adding the sentence "Not authorized for flammable liquids which are also organic peroxides" at the end of each paragraph as follows:

§ 173.119 Flammable liquids not specifically provided for.

(a) *Flammable liquids with flash point 20° F. or below.* Flammable liquids with flash point 20° F. or below and having vapor pressure (Reid¹ test) not over 16 pounds per square inch, absolute, at 100° F., other than those for which special requirements are prescribed in this Part, must be prepared for shipment in specification containers of a design and constructed of materials that will not react dangerously with or be decomposed by the chemical packed therein as required in the following paragraphs (see paragraphs (c) to (i) of this section for high pressure liquids, paragraphs (j) to (l) of this section for viscous liquids, and paragraph (m) of this section for flammable liquids which are also oxidizers, corrosive liquids, poison B liquids, or organic peroxides and § 173.134 for flammable liquids that are also pyrophoric liquids):

(d) *When the vapor pressure does not exceed 16 pounds per square inch, absolute, at 100° F.* When the vapor pressure does not exceed 16 pounds per square inch, absolute, at 100° F., flammable liquids must be packed as prescribed in paragraphs (a) and (b) of this section.

§ 173.124 [Amended].

26. § 173.124 paragraph (a) (5) is amended by deleting the third sentence which begins with the word "Each" and ends with the word "number."

27. In § 173.217 paragraph (a) (5) is revised; paragraph (a) (6) is amended by changing the section reference in the next to the last line of the paragraph to "§ 174.63".

§ 173.217 Calcium hydrochlorite mixture, dry; lithium hypochlorite mixture, dry; mono-(trichloro)-tetra-(monopotassium dichloro)-penta-triazinetriene, dry; potassium dichloro-s-triazinetriene, dry; sodium dichloro-s-triazinetriene, dry; trichloro-s-triazinetriene, dry.

(a)
(5) Specification 21C (§ 178.224 of this subchapter). Fiber drum must be made with integral inner body ply having 0.010-inch minimum aluminum facing and bottom interior with 0.001-inch minimum aluminum facing. Cover of drum must be gasketed. Authorized net weight not over 400 pounds. Authorized only for calcium hypochlorite mixtures, dry.

28. In § 173.232 paragraph (c) (6) is revised to read as follows:

§ 173.232 Aluminum, metallic powder.

(c)

(6) Portable tanks, not over 6,500 pounds gross weight.

29. In § 173.244 paragraph (c) is deleted as follows:

§ 173.244 Limited quantities of corrosive materials.

(c) Deleted.

§ 173.249 [Amended].

30. In § 173.249 the introductory text of paragraph (b) is amended by deleting the words "cargo only" in the 5th line.

31. In § 173.263 a new paragraph (e) is added to read as follows:

§ 173.263 Hydrochloric (muriatic) acid; hydrochloric (muriatic) acid mixtures; hydrochloric (muriatic) acid solution, inhibited; sodium chlorite solution (not exceeding 42 percent sodium chlorite); and cleaning compounds, liquids, containing hydrochloric (muriatic) acid.

(e) Special exceptions for the shipment of certain dilute hydrochloric acid solutions in the ORM-D class are provided in Subpart N of this part.

32. In § 173.276 the introductory text of paragraph (a) is revised to read as follows:

§ 173.276 Anhydrous hydrazine and hydrazine solution.

(a) Anhydrous hydrazine and hydrazine solution must be packed in specification containers as follows:

33. In § 173.288 the introductory text of paragraph (a) is revised to read as follows:

§ 173.288 Chloroformates.

(a) Allyl chloroformate, benzyl chloroformate, ethyl chloroformate, and methyl chloroformate must be packaged as follows:

34. In § 173.294 the heading and the introductory text of paragraph (a) are revised to read as follows:

§ 173.294 Monochloroacetic acid, liquid or solution.

(a) Monochloroacetic acid, liquid or solution, must be packed in specification containers as follows:

35. In § 173.300 the introductory text of paragraph (b) is revised to read as follows:

§ 173.300 Definitions.

(b) *Flammable compressed gas:* Any compressed gas as defined in paragraph (a) of this section shall be classed as

"flammable gas" if any one of the following occurs:

36. In § 173.301 paragraph (i) is revised to read as follows:

§ 173.301 General requirements for shipment of compressed gases in cylinders.

(i) *Foreign cylinders in domestic use.* Except as provided in paragraph (j) of this section, a charged cylinder manufactured outside the United States may not be offered for transportation to, from, or within the United States unless it has been manufactured, inspected, and tested in accordance with the applicable DOT specification set forth in Part 178 of this subchapter.

§ 173.306 [Amended]

37. In § 173.306 paragraph (d) (2) is amended by changing the reference "§ 176.328" to read "§ 178.905"; paragraph (f) (3) (i) is amended by changing the reference "(a)" to read "(f)."

38. In § 173.315 paragraph (a) (1) is amended by changing the references "§§ 173.401(a) (1) and 177.823(d)" to read "§§ 172.328 and 172.328"; Notes 14 and 15 are revised to read as follows:

§ 173.315 Compressed gases in cargo tanks and portable tank containers.

(a)
(1)

NOTE 14: Specifications MC 330 and MC 331 cargo tanks constructed of other than quenched and tempered steel ("NQT") are authorized for all grades of anhydrous ammonia. Specifications MC 330 and MC 331 cargo tanks constructed of quenched and tempered steel ("QT") (see marking requirements of § 172.328(c) of this subchapter) are authorized for anhydrous ammonia, having a minimum water content of 0.2 percent by weight. Any tank being placed in anhydrous ammonia service or a tank which has been in other service or has been opened for inspection, test, or repair, must be cleaned of the previous product and must be purged of air before loading. See § 172.203(h) of this subchapter for special shipping, paper requirements.

NOTE 15: Specifications MC 330 and MC 331 cargo tanks constructed of other than quenched and tempered steel (NQT) are authorized for all grades of liquefied petroleum gases. Only grades of liquefied petroleum gases determined to be "noncorrosive" are authorized in Specification MC 330 and MC 331 cargo tanks constructed of quenched and tempered steel (QT). "Noncorrosive" means the corrosiveness of the gas does not exceed the limitations for classification 1 of the ASTM Copper Strip Classifications when tested in accordance with ASTM D1838-64, "Copper Strip Corrosion by Liquefied Petroleum (LP) Gases." (For (QT) and (NQT) marking requirements see § 172.328(c) of this subchapter. For special shipping paper requirements, see § 172.203(h) of this subchapter.)

39. In § 173.332 paragraph (d) is revised to read as follows:

§ 173.332 Hydrocyanic acid, liquid (prussic acid) and hydrocyanic acid liquefied.

(d) Spec. 105A500-W or 105A600-W (§§ 179.100 and 179.101 of this subchapter). Tank cars. Tank must be retencelled 105A300-W and be equipped with safety valves of the type and size used on spec. 105A300-W (§§ 179.100 and 179.101 of this subchapter) tank car. Tank car tank must be equipped with approved dome fittings and safety devices, and with cork insulation at least 4 inches in thickness. Each tank car must be marked "HYDROCYANIC ACID" in accordance with the requirements of § 172.330 of this subchapter. Written procedure covering details of tank car appurtenances, dome fittings and safety devices, and marking, loading, handling, inspection, and testing practices shall be filed with and approved by the Bureau of Explosives before any tank car is offered for transportation of hydrocyanic acid. The maximum permitted filling density is 63 percent of the water capacity of the tank.

40. Section 173.338 is reserved.

§ 173.338 [Reserved].

41. In § 173.343 the introductory text of paragraph (a) is revised to read as follows:

§ 173.343 Poison B.

(a) For the purposes of Parts 170-189 of this subchapter and except as otherwise provided in this Part, class B poisons are those substances, liquid or solid (including pastes and semisolids), other than Class A poisons or irritating materials, which are known to be so toxic to man as to afford a hazard to health during transportation; or which, in the absence of adequate data on human toxicity, are presumed to be toxic to man because they fall within any one of the following categories when tested on laboratory animals:

42. In § 173.345 the introductory text of paragraph (a) and paragraph (b) are revised to read as follows:

§ 173.345 Limited quantities of Poison B liquids.

(a) Limited quantities of Poison B liquids for which exceptions are permitted as noted by reference to this section in § 172.101 of this subchapter or as provided in § 173.359(c), in tightly closed inside packagings, securely cushioned when necessary to prevent breakage, are excepted from the specification packaging requirements when packed according to the following paragraphs. In addition, shipments are not subject to Subpart F of Part 172 of this subchapter, to Part 174 of this subchapter except §§ 174.24 and 174.680 and to Part 177 of this subchapter except §§ 177.817 and 177.841(e).

(b) Special exceptions for shipment of certain drugs and medicines in the ORM-

D class are prescribed in Subpart N of this Part.

43. In § 173.354 paragraph (a) (4), is revised to read as follows:

§ 173.354 Motor fuel antiknock compound or tetraethyl lead.

(a) *

(4) Specification 105A300-W (§§ 179.100 and 179.101 of this subchapter). Tank car. Each tank car must be marked "MOTOR FUEL ANTIKNOCK COMPOUND" in accordance with the requirements of § 172.330 of this subchapter. Tank car not authorized for tetraethyl lead. Openings in tank heads to facilitate application of nickel lining are authorized on tank cars constructed before January 1, 1975. These openings must be closed in an approved (§ 179.3 of this subchapter) manner.

44. In § 173.364 paragraph (a) (1) is amended by adding the word "jars" following the word bags in the 7th line; paragraph (b) is revised to read as follows:

§ 173.364 Limited quantities of Poison B solids.

(b) Special exceptions for shipment of certain drugs and medicines in the ORM-D class are prescribed in Subpart N of this Part.

45. In § 173.384 a new section is added to read as follows:

§ 173.348 Monochloroacetone, stabilized.

(a) Monochloroacetone, stabilized, must be packed in specification containers as follows:

(1) Specification 5, 5A, or 17C (single-trip) (§§ 178.80, 178.81, 178.115 of this subchapter). Metal barrels or drums.

(2) Specification 15A, 15B, 15C, or 16A (§§ 178.168, 178.169, 178.170, 178.185 of this subchapter). Wooden boxes with inside glass bottles or tubes in metal cans hermetically sealed or with covers securely taped. The metal cans must be in corrugated fiberboard cartons, specification 2C (§ 178.22 of this subchapter). Bottles must not contain more than 1 pound of liquid each, must not be filled to more than 95 percent capacity, must be tightly and securely closed, and must be cushioned in cans with at least one-half inch of absorbent material. Cans must be made of metal at least 32-gauge U.S. Standard. The total amount of liquid per package must not exceed 24 pounds.

§ 173.386 [Amended].

46. In § 173.386 the introductory text of paragraph (d) is amended by changing the first word to read "Exceptions."

§ 173.392 [Amended].

47. In § 173.392 paragraph (a) is amended by changing the references "§§ 173.401 and 173.402" in the eighth and ninth lines to read "§§ 172.300 and 172.400 of this subchapter"; in paragraph (c) (7); the references to "§ 174.451(b)" or "§ 177.823" in the fifth line are changed to read "§ 172.500"; in paragraph (d) (5)

the references to "§ 174.541(b)" or "§ 177.823" in the fifth line are changed to read "§ 172.500."

Appendix A Part 173 [Deleted].

48. The table shown as Appendix A to Part 173, and following § 173.432 is deleted.

§ 173.800 [Amended].

49. In § 173.800 the words "Ammonium hydrogen fluoride" are deleted and the word "Ammonium" is capitalized in the entry "ammonium hydrogen sulfate" in the Heading and introductory text of paragraph (a).

50. § 173.1025 is revised as follows:

§ 173.1025 Metal borings, shavings, turnings or cuttings.

Metal borings, shavings, turnings or cuttings, when offered for transportation by water, must be prepared for shipment in compliance with § 173.510 and must be packaged in a metal barrel or drum, or, for non-ferrous material only, in compressed bales wrapped in burlap provided the burlap shows no sign of oil.

51. In § 173.1200 the introductory text of paragraph (a), paragraph (a) (2) (iii), and paragraph (a) (8) (ii) are revised to read as follows:

§ 173.1200 Consumer Commodity.

(a) In order to be transported under the proper shipping name of "Consumer commodity," a material must meet that definition. It may be reclassified and offered for shipment as ORM-D material (see § 173.500) provided that an ORM-D exception is authorized in specific sections applicable to the material, and that it is prepared in accordance with the following paragraphs. (The gross weight of each package must not exceed 65 pounds and each package offered for transportation aboard aircraft must meet the requirements of § 173.6.)

(2) *

(iii) In metal or plastic inside containers, each having a rated capacity of not over 1 quart, packed in strong outside packaging provided the liquid mixture contains 15 percent or less corrosive material and the remainder of the mixture does not meet the definition of a hazardous material as defined in this subchapter. Not authorized for transportation by air.

(8) *

(ii) In inside metal container charged with a solution of materials and compressed gas or gases which is nonpoisonous, meeting all of the following:

52. Appendix A to Part 173 is amended by adding "not less than" following the word measuring in paragraph 2; paragraphs 6 and 7 are renumbered 7 and 8, and a new paragraph 6 is added to read "6. Following this initial reading, all test sites are washed with an appropriate solvent to prevent further exposure."

PART 174—CARRIAGE BY MAIL

53. In the Table of Sections, § 174.83 is revised to read as follows:
"Sec. 174.63 Freight containers and portable tanks."

54. § 174.5 is revised to read as follows:
§ 174.5 Carrier's materials and supplies.

This subchapter applies to the transportation of a carrier's materials and supplies moving by rail, except that the shipper's certification is not required when these materials and supplies are being transported by the carrier who owns them. The requirements of this subchapter do not apply to railway torpedoes or fuses when carried in engines or rail cars. Railway torpedoes must be in closed metal boxes when not in use.

§ 174.3 [Amended].

55. In § 174.8 paragraph (b) is amended by adding the word "loaded" in the second line between the words "each" and "placarded."

56. In § 174.10 paragraph (a) is amended by deleting the words "including the roof" and the period in the sixth line and placing a period after the word "line" in the fifth line; paragraph (c) is revised to read as follows:

§ 174.10 Inspection of cars at interchange.

(c) A shipment of hazardous materials offered by a connecting carrier must comply with this subchapter, and the revenue waybill, freight bill, manifest of lading, card waybill, switching order, transfer slip ticket, or other billing, must bear the placard notation and endorsement prescribed by § 174.25 of this subpart.

§ 174.12 [Amended].

57. In § 174.12 paragraph (a) is amended by deleting the word "intermediate" and adding the word "origin" in place thereof in the first line.

58. In § 174.24 paragraph (b) is deleted; paragraph (c) is redesignated paragraph (b) and revised to read as follows:

§ 174.24 Shipping papers.

(b) This subpart does not apply to materials classed as ORM-A, B, C, or D.
59. In § 174.25 paragraph (a)(2)(iii) the introductory text of paragraph (b), paragraph (b)(4) and (c) are revised; paragraph (b)(6) is deleted as follows:

§ 174.25 Additional information on waybills, switching orders, and other billings.

(a) . . .

(2) . . .

(ii) In bold, upper case letters not less than 1/8 of an inch high inside a rectangle made with asterisks (*) or the symbol for number (#).

(b) When the initial movement of a loaded rail car required to be placarded is a switching operation, the switching

order, switching receipt, or switching ticket, and all copies thereof, prepared by the shipper, or by the carrier under the shipper's written authority, must contain the following:

(4) Except when a certified bill of lading is tendered to the carrier, the shipper's certification and signature specified in § 172.204 of this subchapter.

(5) Deleted.

(c) For empty tank cars which previously contained a hazardous material, other than a combustible liquid, or unless the tank car has been reloaded with a material not subject to this subchapter, or has been sufficiently cleaned of residue and purged of vapor to remove any potential hazard, the billing must show the word(s) "EMPTY" or "EMPTY: Last Contained," followed by the name of the hazardous material last contained in the tank car, the hazard class of the material and the word, "PLACARDED." For example, EMPTY: SULFURIC ACID, Corrosive Material, Placarded; or EMPTY: Last Contained SULFURIC ACID, Corrosive Material, Placarded.

60. In § 174.26 paragraph (b) is amended by deleting the words "on a separate document" in the last sentence of the paragraph; a new paragraph (c) is added to read as follows:

§ 174.26 Notice to train crews of placarded cars.

(c) A member of the train crew of a train transporting hazardous materials must have in his possession a copy of the shipping papers for the shipment of hazardous materials being transported showing the information required by §§ 172.202 and 172.203 of this subchapter.

§ 174.63 [Amended].

61. In § 174.63 Heading and paragraph (a) are amended by deleting the word "portable" whenever it appears preceding the word "container" and adding the word "freight" in place thereof.

62. In § 174.68 is revised to read as follows:

§ 174.69 Removal of placards and car certificates after unloading.

When lading requiring placards or car certificates is removed from rail cars other than tank cars, placards and car certificates must be removed by the party unloading the car. For empty tank cars, the placards must be removed, replaced or reversed in accordance with the provisions of § 172.510(c) of this subchapter.

§ 174.84 [Amended].

63. § 174.84 is amended by adding the word "freight" preceding the word "container" each time it appears in the section.

§ 174.88 [Amended].

64. § 174.88 is amended by adding the words "an occupied" preceding the word "caboose" in the fourth line.

§ 174.89 [Amended].

65. § 174.89 is amended by adding the word "loaded" preceding the word "placarded" in the third line.

§ 174.101 [Amended].

66. In § 174.101 paragraphs (n), (n)(1), and (n)(2) are amended by deleting the word "portable" each time it appears in these paragraphs and adding the word "freight" in place thereof; paragraph (n)(3) is amended by adding the word "freight" preceding the word "container" in the second line.

67. In § 174.104 paragraph (f) is revised as follows:

§ 174.104 Class A explosives; car selection, preparation, inspection, and certification.

(f) Each car certificate for use in connection with the inspection of rail cars for the carriage of Class A explosives shall be printed on strong tag board measuring 7 by 7 inches, or 6 by 8 inches. It must be duly executed in triplicate by the carrier, and by the shipper if he loads the shipments. The original must be filed by the carrier at the forwarding station in a separate file and the other two must be attached to the car, one to each outer side on a fixed placard board or as otherwise provided.

CAR CERTIFICATE

No. 1 Station

I hereby certify that I have this day personally examined Car Number and that the car is in condition for service and complies with the FRA Freight Car Safety Standards (49 CFR Part 218) and with the requirements for foreign cars used to transport explosives prescribed by the DOT Hazardous Materials Regulation (49 CFR Part 174):

Qualified Person Designated Under 49 CFR 215.15

No. 2 Station

I have this day personally examined the above car and hereby certify that the explosives in or on this car, or in or on vehicles or in containers have been loaded and braced; that placards have been applied, according to the regulations prescribed by the Department of Transportation; and that the doors of cars so equipped fit or have been stripped so that sparks cannot enter.

Shipper or his authorized agent

Qualified Person Designated Under 49 CFR 215.15

No. 3 Station

I hereby certify that I have this day personally supervised the loading of the vehicles or containers on and their securement to the above car.

Shipper or railway employee inspecting loading and securement

NOTE 1: A shipper must decline to use a car not in proper condition.

NOTE 2: All certificates, where applicable, must be signed.

NOTE 3: Car certificates remaining on hand as of the effective date of these regulations may be used until stocks are exhausted but not after July 1, 1977.

§ 174.112 [Amended].

68. In § 174.112 paragraph (b) is amended by adding reference to "(n), or (o)," in the second line following (b).

§ 174.480 [Amended].

69. § 174.480 is amended by deleting the word "oxidizer" in the second line and adding the words "flammable solid" in place thereof.

70. § 174.810 paragraph (c) is revised as follows:

§ 174.810 Special handling requirements for wet electric storage batteries.

(c) Wet electric storage batteries are not authorized in refrigerator or "plug-door" type cars unless the cars are provided with vents which will prevent an accumulation of gas within the car.

PART 175—CARRIAGE BY AIRCRAFT

§ 175.10 [Amended].

71. In § 175.10 paragraph (a) is amended by changing the word "part" in paragraph (a) to read "subchapter."

§ 175.30 [Amended].

72. In § 175.30 paragraph (b) is amended by deleting the word "dents," in the tenth line.

PART 176—CARRIAGE BY VESSEL

§ 176.11 [Amended].

73. In § 176.11 paragraph (a) is amended by adding the following sentence at the end of the paragraph: "However, a material which is a hazardous material under this subchapter, but which is not a hazardous material under the provisions of the IMCO Code, may be offered and accepted for transportation only if it is classed, described, packaged, marked, labeled and in the condition for shipment required by subchapter."

74. In § 176.30 paragraph (a) is revised to read as follows:

§ 176.30 Dangerous cargo manifest.

(a) The master of a vessel transporting hazardous materials or his authorized representative shall prepare a dangerous cargo manifest, list, or stowage plan. This document may not include a material which is not subject to the requirements of 49 CFR or the IMCO Code. This document must be kept in a designated holder on or near the vessel's bridge. It must contain the following information:

§ 176.45 [Amended].

75. In § 176.45 paragraph (a) is amended by deleting the words "District

Commander" and substituting therefor the words "Captain of the Port."

§ 176.48 [Amended].

76. In § 176.48 paragraphs (a), and (c) are amended by deleting the words "District Commander" and substituting therefor the words "Captain of the Port."

§ 176.52 [Amended].

77. In § 176.52 paragraph (b) is amended by deleting the words "District Commander" and substituting therefor the words "Captain of the Port."

§ 176.63 [Amended].

78. In § 176.63 paragraph (b) is amended by deleting the period at the end of the paragraph and adding the following "except that such protection is not required for shipment in portable tanks."

§ 176.74 [Amended].

79. In § 176.74 paragraph (c) is amended by changing the word "may" in the second line to "should."

§ 176.83 [Amended].

80. In § 176.83 paragraph (d) (3) (I) (B) is amended by deleting the period at the end of the first sentence and adding in place thereof the words "or a"; paragraph (d) (3) (II) (A) is amended by deleting the period at the end of the first sentence and the word "a" at the beginning of the second sentence and adding in place thereof the words "or a"; paragraph (d) (3) (IV) (B) is amended by deleting the word "and" in the fourth line and adding in place thereof the word "or"; paragraph (d) (3) (III) (A) is amended by deleting the word "and" in the fifth line and adding in place thereof the word "or."

81. In § 176.905 paragraph (c) is amended by deleting the period at the end of the paragraph and the following parenthetical expression, and adding in place thereof the following "as the phrase 'specially suited for vehicle' is defined in 49 CFR 70.10-44 or 49 CFR 90.10-38 as is appropriate"; paragraph (1) is revised; paragraph (1) (2) is deleted and paragraph (1) (3), (4), and (5) are renumbered (1) (2), (3), and (4), respectively; a new paragraph (L) is added to read as follows:

§ 176.905 Motor vehicles or mechanical equipment powered by internal combustion engines.

(L) Except when being transported in a space specially suited for vehicles, the following additional requirements apply to the stowage of any vehicles containing a flammable liquid:

(1) No hazardous materials other than motor vehicles or mechanized equipment and their equipment may be stowed in the same hold or compartment with any vehicle having a flammable liquid or flammable compressed gas in its tank.

GRANDFATHER CLAUSE

The effective date provision in Docket HM-103/112 (41 FR 15972-16131, April 15, 1976), appearing at 41 FR 16131, as amended at 41 FR 26014 (June 24, 1976), and at 41 FR 40691 (September 20, 1976), is further amended by revising the third numbered paragraph to read as follows:

Effective date: . . .

(1) . . .

(2) . . .

(3) A package filled, marked, or labeled before January 1, 1977, in accordance with regulations in effect on June 30, 1976, may be offered for transportation and transported, even though it does not comply with the package, marking, and labeling provisions of this amendment, if it (1) is offered for transportation before July 1, 1977, and (2) complies with the package, marking, and labeling regulations in effect on June 30, 1976.

(18 U.S.C. 854, 46 U.S.C. 170(7), 49 U.S.C. 1471, 1472(h) (1), 1807, 49 CFR 1.53(e)-(h). Under a final rule making (41 FR 38175), on January 3, 1977, the authority citation for this amendment is changed to read: (49 U.S.C. 1803, 1804, 1808; 49 CFR 1.53(e).)

Effective Date: The changes effected by this publication consist of corrections, clarifications, and relaxations of previously published requirements. As these changes are not expected to impose significant burdens on anyone, and because of the need for expedited publication in order to avoid disruption of the staged implementation adopted for amendments in this docket, further public notice and opportunity for comment are being dispensed with, and the amendments contained herein are effective on December 30, 1976, subject to the applicable effective date provision at 41 FR 16131, as amended at 41 FR 26014 and 41 FR 40691, and as amended herein.

The Materials Transportation Bureau has determined that this document does not contain a major proposal requiring preparation of an Inflation Impact Statement under Executive Order 11821 and OMB Circular A-107.

Issued in Washington, D.C. on December 22, 1976.

JAMES T. CURTIS, JR.,
Director,
Materials Transportation Bureau.

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