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Coast Guard

46 CFR Parts 30, 150 and 153

2012 Liquid Chemical Categorization Updates; Interim Rule

## DEPARTMENT OF HOMELAND SECURITY

### Coast Guard

#### 46 CFR Parts 30, 150, and 153

[Docket No. USCG–2013–0423]

RIN 1625–AB94

#### 2012 Liquid Chemical Categorization Updates

**AGENCY:** Coast Guard, DHS.

**ACTION:** Interim rule.

**SUMMARY:** The Coast Guard is updating and revising regulatory tables that list liquid hazardous materials, liquefied gases, and compressed gases that have been approved for maritime transportation in bulk, and that indicate how each substance's pollution potential has been categorized. The interim rule provides new information about approved substances and their categorizations, but would not make any changes in which substances are approved or how each substance is categorized. Updated information is of value to shippers and to the owners and operators of U.S.-flag tank and bulk cargo vessels in any waters and most foreign-flag tank and oceangoing bulk cargo vessels in U.S. waters. This interim rule promotes the Coast Guard's maritime safety and stewardship missions.

**DATES:** This interim rule is effective September 16, 2013. Comments and related material must either be submitted to our online docket via <http://www.regulations.gov> on or before November 14, 2013 or reach the Docket Management Facility by that date.

**ADDRESSES:** You may submit comments identified by docket number USCG–2013–0423 using any one of the following methods:

(1) *Federal eRulemaking Portal:* <http://www.regulations.gov>.

(2) *Fax:* 202–493–2251.

(3) *Mail:* Docket Management Facility (M–30), U.S. Department of Transportation, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC 20590–0001.

(4) *Hand delivery:* Same as mail address above, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is 202–366–9329.

To avoid duplication, please use only one of these four methods. See the “Public Participation and Request for Comments” portion of the **SUPPLEMENTARY INFORMATION** section

below for instructions on submitting comments.

**FOR FURTHER INFORMATION CONTACT:** If you have questions on this rule, email or call LCDR Marie Castillo-Bletso, Coast Guard; email: [Marie.M.Castillo-Bletso@uscg.mil](mailto:Marie.M.Castillo-Bletso@uscg.mil), telephone: 202–372–1023. If you have questions on viewing or submitting material to the docket, call Barbara Hairston, Program Manager, Docket Operations, telephone 202–366–9826.

#### SUPPLEMENTARY INFORMATION:

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##### I. Public Participation and Request for Comments

We encourage you to participate in this rulemaking by submitting comments and related materials. All comments received will be posted, without change, to <http://www.regulations.gov> and will include any personal information you have provided.

###### A. Submitting Comments

If you submit a comment, please include the docket number for this rulemaking (USCG–2013–0423), indicate the specific section of this document to which each comment applies, and provide a reason for each suggestion or recommendation. You may submit your comments and material online, or by fax, mail or hand delivery, but please use only one of these means. We recommend that you include your name and a mailing address, an email address, or a phone number in the body of your document so that we can contact you if we have questions regarding your submission.

To submit your comment online, go to <http://www.regulations.gov> and insert “USCG–2013–0423” in the “Search”

box. Click on “Submit a Comment” in the “Actions” column. If you submit your comments by mail or hand delivery, submit them in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. If you submit comments by mail and would like to know that they reached the Facility, please enclose a stamped, self-addressed postcard or envelope. We will consider all comments and material received during the comment period and may change this interim rule based on your comments.

###### B. Viewing Comments and Documents

To view comments, as well as documents mentioned in this preamble as being available in the docket, go to <http://www.regulations.gov> and insert “USCG–2013–0423” in the “Search” box. Click “Search.” Click the “Open Docket Folder” in the “Actions” column. If you do not have access to the internet, you may view the docket online by visiting the Docket Management Facility in Room W12–140 on the ground floor of the Department of Transportation West Building, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. We have an agreement with the Department of Transportation to use the Docket Management Facility.

###### C. Privacy Act

Anyone can search the electronic form of comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review a Privacy Act notice regarding our public dockets in the January 17, 2008, issue of the **Federal Register** (73 FR 3316).

###### D. Public Meeting

We do not now plan to hold a public meeting, but you may submit a request for one to the docket using one of the methods specified under **ADDRESSES**. In your request, explain why you believe a public meeting would be beneficial. If we determine that one would aid this rulemaking, we will hold one at a time and place announced by a later notice in the **Federal Register**.

## II. Abbreviations

APA Administrative Procedure Act  
 DHS Department of Homeland Security  
 E.O. Executive Order  
 FR Federal Register  
 IBC Code International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk  
 IMO International Maritime Organization

MARPOL International Convention for the Prevention of Pollution from Ships, 1973  
 MEPC Marine Environment Protection Committee  
 NLS Noxious liquid substance  
 OMB Office of Management and Budget  
 SOLAS International Convention for the Safety of Life at Sea  
 U.S.C. United States Code

### III. Basis and Purpose

The basis of this interim rule is 46 U.S.C. 3703, which requires the Secretary of the department in which the Coast Guard is operating to prescribe regulations relating to the operation of vessels that carry liquid bulk dangerous cargoes, and to the types and grades of cargo those vessels carry. Additional regulatory authority is provided by 33 U.S.C. 1903 (regulations to implement the International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL)), 46 U.S.C. 2103 (merchant marine regulatory authority), and 46 U.S.C. 3306 (regulations for the safety of individuals and property on inspected vessels). The Secretary's authority under these statutes is delegated to the Coast Guard in Department of Homeland Security Delegation No. 0170.1 (77) and (92).

The purpose of the interim rule is to update and revise regulatory tables that list liquid hazardous materials, liquefied gases, and compressed gases that have been approved for maritime transportation in bulk, and that indicate how each substance's pollution potential has been categorized.

The Administrative Procedure Act, 5 U.S.C. 551 *et seq.*, generally requires agencies to give prior public notice before issuing new rules and to give interested persons an opportunity to participate in the rulemaking by submitting comments or additional information. We are issuing this interim rule without prior notice and comment under the exceptions to the general requirement contained in 5 U.S.C. 553(b)(B) and (d). Section 553(b)(B) provides an exception from prior notice and comment when an agency finds, for good cause, that notice and comment are "impracticable, unnecessary, or contrary to the public interest." We find that it is unnecessary and contrary to the public interest to give prior notice and comment for this interim rule, because this interim rule simply updates and revises tables that list the names and pollution-potential categorizations of liquid chemical substances that have already been categorized and approved for maritime transportation in bulk. It makes no new decisions about whether any specific chemical substance should be approved for bulk maritime transportation, about

how any specific substance should be categorized, or about carriage requirements that should apply to any specific substance. It simply updates and revises regulatory tables to list liquid hazardous materials, liquefied gases, and compressed gases that currently are approved for maritime transportation in bulk, and indicates how each substance's pollution potential currently is categorized under international agreements to which the United States is a party. Neither existing approvals nor existing categorizations can be changed as a result of taking public comment on this rulemaking.

Additionally, delaying the regulatory update to allow for notice and comment is contrary to the public interest because it delays the public's ready access to categorization information without which it is impossible to know which regulations apply to any specific substance.

### IV. Background

Coast Guard regulations in 46 CFR subchapter O (parts 150 through 155) list hundreds of hazardous liquids, liquefied gases, and compressed gases that the Coast Guard has approved for bulk transportation by vessels. Subchapter O specifies requirements for safely transporting these substances.

If a substance is not already listed in subchapter O, a vessel owner or operator must request the Coast Guard's written permission to transport the substance. 46 CFR 150.140, 151.01–15, 153.900. If the owner or operator plans to ship the substance internationally, an additional procedure is necessary to satisfy the requirements of international treaties to which the United States is a party. Specifically, a "tripartite agreement" must be concluded between the owner or operator, the Coast Guard, and the flag administration of the country to which the substance will be shipped. The tripartite agreement categorizes the substance's potential for pollution and sets its minimum safe carriage requirements in accordance with the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code), which contains international standards for the safe maritime bulk transportation of dangerous and noxious liquid chemicals in accordance with MARPOL and the International Convention for the Safety of Life at Sea (SOLAS). A copy of the tripartite agreement is forwarded to the International Maritime Organization's (IMO's) Marine Environment Protection Committee (MEPC).

While this substance-specific approval procedure facilitates the

commercial development and use of new substances and ensures the safety of a new substance's maritime transportation, public awareness of the new substance and its applicable safety requirements is maximized only by listing it in subchapter O, and in similar regulatory lists maintained by other countries. The IMO facilitates this public awareness. After each tripartite agreement is forwarded to the MEPC, the MEPC reviews the information the agreement contains, and either modifies or validates the information. Each December, the MEPC releases a circular listing the new substances for which it has completed this review. The circular lists the countries that have approved international maritime transportation of the substance, and provides information about the substance's pollution categorization and minimum transportation safety requirements. Thus, if the United States has approved a substance for bulk maritime transportation, eventually it will be listed in the MEPC circular.

Periodically, the IBC Code is revised, and substances listed in MEPC annual circulars since the last IBC Code revision are incorporated into the IBC Code. The IBC Code was last comprehensively revised in 2007, at which time the pollution categories for approved substances were changed from an A–B–C–D categorization scheme (with A representing the most severe pollution hazards and B, C, and D representing decreasing levels of risk) to an X–Y–Z–OS scheme (with X, Y, and Z representing decreasing hazard levels and OS representing "other substances" that present no significant pollution hazards). In March 2012, an Annex to the 2007 IBC Code appeared, listing additional substances with their pollution categorizations. The 2007 IBC Code and March 2012 Annex were most recently updated by the December 2012 MEPC Circular.

### V. Discussion of the Interim Rule

This interim rule is up to date as of the December 2012 MEPC Circular. It updates and revises subchapter O tables listing liquid chemical substances that the Coast Guard has approved for bulk maritime transportation, which have not been updated in several years. As a result, vessel owners and operators have lacked current and comprehensive lists of approved substances. Moreover, the current subchapter O tables use the outmoded A–B–C–D pollution categories and do not convey information about the X, Y, Z, and OS categories in international use since the IBC Code's 2007 revision. By updating the lists and revising their pollution

categorizations to match the 2007 IBC Code, this interim rule provides the regulated community with more current information, thereby achieving a modest reduction in regulatory burden. Our plan is to keep the table updated through annual rulemakings in the future.

The subchapter O tables amended by this interim rule are Table 30.25–1 (List of Flammable and Combustible Bulk Liquid Cargoes), Table I to Part 150 (Alphabetical List of Cargoes), Table II to Part 150 (Grouping of Cargoes), Appendix I to Part 150 (Exceptions to the Chart), and Table 2 to Part 153 (Cargoes Not Regulated Under Subchapters D or O of this Chapter When Carried in Bulk on Non-oceangoing Barges). We are amending each of these tables to update the lists through December 2012 and to revise pollution categorizations. Also, we are revising the 46 CFR 30.25–1 regulatory text that serves as the introduction to Table 30.25–1 to explain the pollution categorizations included in that table.

## VI. Regulatory Analyses

### A. Regulatory Planning and Review

Executive Orders (E.O.s) 12866 (“Regulatory Planning and Review”) and 13563 (“Improving Regulation and Regulatory Review”) direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). Executive Order 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility. This interim rule has not been designated a “significant regulatory action” under section 3(f) of E.O. 12866. Accordingly, the interim rule has not been reviewed by the Office of Management and Budget. A draft regulatory assessment is included herein.

### Affected Population

This interim rule updates tables that list the names and pollution-potential categorizations of liquid chemical substances that have already been categorized and approved for maritime transportation in bulk, either permanently or on a provisional basis. This interim rule makes no new decisions about whether any specific chemical substance should be approved for bulk maritime transportation, about how any specific substance should be categorized, or about carriage

requirements that should apply to any specific substance. It simply provides updated information about the substances that are currently approved and how they are currently categorized. As such, this interim rule does not directly affect any particular vessel population. However, this interim rule indirectly applies to the following vessel populations carrying these cargoes from 46 CFR parts 30, 150, 151, 153, and 154 as described:

- Part 30: U.S.-flag tank vessels, as further specified in 46 CFR 30.01–5.
- Part 150: U.S.-flag and foreign-flag tank (when in U.S. waters; except foreign-flag tank vessels in innocent passage through U.S. waters) vessels, with exceptions described in 46 U.S.C. 3702.
- Part 151: Non-self-propelled bulk-cargo carrying oceangoing/non-oceangoing U.S.-flag and oceangoing foreign-flag (when in U.S. waters) vessels, as further specified in 46 CFR 151.01–1.
- Part 153: Self-propelled bulk cargo carrying oceangoing/non-oceangoing U.S.-flag and oceangoing foreign-flag (when in U.S. waters) vessels, as further specified in 46 CFR 153.1.
- Part 154: U.S.-flag and foreign-flag (when in U.S. waters) vessels with bulk liquefied gas cargo/cargo residue or vapor, as further specified in 46 CFR 154.5.

### Costs

This interim rule updates tables that list the names and pollution-potential categorizations of liquid chemical substances that have already been categorized and approved by the United States and the IMO for maritime transportation in bulk, either permanently or on a provisional basis. Since this interim rule simply updates tables and a table preface to reflect decisions already made under international law about which liquid chemical substances are approved for bulk maritime transportation, and about how those substances should be categorized with respect to their pollution potential, it does not change established shipping requirements and there are no private sector costs expected from this interim rule. This interim rule incorporates chemical substances and categorizations listed by the IMO through its December 2012 MEPC Circular.

### Benefits

The primary benefit of this interim rule is to conform regulatory language to practices currently allowed by the Coast Guard through either individual letters of approval or the IBC Code as

discussed above, which we expect will result in the benefit of improved service to the public through improved clarity and transparency.

### B. Small Entities

Under the Regulatory Flexibility Act (5 U.S.C. 601–612) (RFA), we have considered whether this interim rule would have a significant economic impact on a substantial number of small entities. The term “small entities” comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. We recognize that an Initial Regulatory Flexibility Analysis is not required when an interim rule is promulgated without prior notice and comment. Although no impacts on small entities are anticipated, Coast Guard included a threshold analysis of the Interim Rule requirements in order to follow the spirit of the Regulatory Flexibility Act. As this rule does not impose any additional direct costs on small entities as defined by the RFA, this rule is not expected to have a significant economic impact on a substantial number of small entities.

### C. Assistance for Small Entities

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121), we want to assist small entities in understanding this rule so that they can better evaluate its effects on them and participate in the rulemaking. If this interim rule would affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please consult LCDR Marie Castillo-Bletso, at [Marie.M.Castillo-Bletso@uscg.mil](mailto:Marie.M.Castillo-Bletso@uscg.mil). The Coast Guard will not retaliate against small entities that question or complain about this interim rule or any policy or action of the Coast Guard.

### D. Collection of Information

This interim rule would call for no new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520). This interim rule simply updates and revises tables that list substances that have been approved and categorized for bulk maritime transportation, which does not involve information collection.

### E. Federalism

A rule has implications for federalism under E.O. 13132 (“Federalism”) if it has a substantial direct effect on the

States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. We have analyzed this interim rule under that E.O. and have determined that it is consistent with the fundamental federalism principles and preemption requirements described in the E.O. Our analysis follows.

It is well-settled that States may not regulate in categories reserved for regulation by the Coast Guard. It is also well-settled, now, that all of the categories covered in 46 U.S.C. 3306, 3703, 7101, and 8101 (design, construction, alteration, repair, maintenance, operation, equipping, personnel qualification, and manning of vessels), as well as the reporting of casualties and any other category in which Congress intended the Coast Guard to be the sole source of a vessel's obligations, are within fields foreclosed from regulation by the States. (See the decision of the Supreme Court in the consolidated cases of *United States v. Locke* and *Intertanko v. Locke*, 529 U.S. 89, 120 S.Ct. 1135 (March 6, 2000).) This interim rule amends existing regulations for tank vessels and the maritime transportation of certain bulk dangerous cargoes, which, under the principles discussed in *Locke*, fall within the categories enumerated in 46 U.S.C. 3306 and 3703 and are within fields in which the states are foreclosed from regulating. Therefore, because the States may not regulate within these categories, this rule is consistent with the fundamental federalism principles and preemption requirements described in E.O. 13132.

#### *F. Unfunded Mandates Reform Act*

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of \$100,000,000 (adjusted for inflation) or more in any one year. Though this rule will not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

#### *G. Taking of Private Property*

This interim rule will not cause a taking of private property or otherwise have taking implications under E.O. 12630 (“Governmental Actions and Interference with Constitutionally Protected Property Rights”).

#### *H. Civil Justice Reform*

This interim rule meets applicable standards in sections 3(a) and 3(b)(2) of E.O. 12988 (“Civil Justice Reform”) to minimize litigation, eliminate ambiguity, and reduce burden.

#### *I. Protection of Children*

We have analyzed this interim rule under E.O. 13045 (“Protection of Children from Environmental Health Risks and Safety Risks”). This interim rule is not an economically significant rule and does not create an environmental risk to health or risk to safety that may disproportionately affect children.

#### *J. Indian Tribal Governments*

This interim rule does not have tribal implications under E.O. 13175 (“Consultation and Coordination with Indian Tribal Governments”) because it does not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

#### *K. Energy Effects*

We have analyzed this interim rule under E.O. 13211 (“Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use”). We have determined that it is not a “significant energy action” under that E.O. because it is not a “significant regulatory action” under E.O. 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The Administrator of the Office of Information and Regulatory Affairs has not designated it as a significant energy action. Therefore, it does not require a Statement of Energy Effects under E.O. 13211.

#### *L. Technical Standards*

The National Technology Transfer and Advancement Act (15 U.S.C. 272 note) directs agencies to use voluntary consensus standards in their regulatory activities unless the agency provides Congress, through the OMB, with an explanation of why using these standards would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., specifications of materials, performance, design, or operation; test methods; sampling procedures; and related management systems practices) that are developed or adopted by voluntary consensus standards bodies. This interim rule does not use technical standards. Therefore,

we did not consider the use of voluntary consensus standards.

#### *M. Environment*

We have analyzed this interim rule under Department of Homeland Security Management Directive 023–01 and Commandant Instruction M16475.1D, which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321–4370f), and have made a preliminary determination that this action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. A preliminary environmental analysis checklist supporting this determination is available in the docket where indicated under the “Public Participation and Request for Comments” section of this preamble. This interim rule involves administrative updates of existing chemical transport regulations and updates provisions relating to the chemical properties of liquid chemical substances approved for maritime transportation in bulk. The update incorporates changes in how approved substances are categorized by their chemical properties. This interim rule promotes the Coast Guard’s maritime safety and stewardship missions. It is therefore included in the Coast Guard’s Commandant Instruction (COMDTINST) M16475.1D, Figure 2–1, which includes categorical exclusions (CEs) under categories (34)(a), “regulations which are editorial or procedural, such as those updating addresses or establishing application procedures,” and 34 (d), “regulations concerning manning, documentation, admeasurement, inspection, and equipping of vessels,” as well as in the “Appendix to National Environmental Policy Act: Coast Guard Procedures for Categorical Exclusions, Notice of Final Agency Policy” (see 67 FR 48243) under paragraph 6 (a), “regulations concerning vessel operation safety standards . . . equipment approval, and/or equipment carriage requirements . . . and visual distress signals.” We seek any comments or information that may lead to the discovery of a significant environmental impact from this interim rule.

#### **List of Subjects**

##### *46 CFR Part 30*

Cargo vessels, Foreign relations, Hazardous materials transportation, Penalties, Reporting and recordkeeping requirements, Seamen.

46 CFR Part 150

Hazardous materials transportation, Marine safety, Occupational safety and health, Reporting and recordkeeping requirements.

46 CFR Part 151

Cargo vessels, Hazardous materials transportation, Marine safety, Reporting and recordkeeping requirements, Water pollution control.

46 CFR Part 153

Administrative practice and procedure, Cargo vessels, Hazardous materials transportation, Marine safety, Reporting and recordkeeping requirements, Water pollution control.

For the reasons set out in the preamble, the Coast Guard amends 46 CFR parts 30, 150, 151, and 153 as follows:

**PART 30—GENERAL PROVISIONS**

■ 1. The authority citation for part 30 continues to read as follows:

**Authority:** 46 U.S.C. 2103, 3306, 3703; Pub. L. 103–206, 107 Stat. 2439; 49 U.S.C. 5103, 5106; Department of Homeland Security Delegation No. 0170.1; Section 30.01–2 also issued under the authority of 44 U.S.C. 3507; Section 30.01–05 also issued under the authority of Sec. 4109, Pub. L. 101–380, 104 Stat. 515.

■ 2. Revise § 30.25–1 to read as follows:

**§ 30.25–1 Cargoes carried in vessels certificated under the rules of this subchapter.**

(a) Table 30.25–1 lists flammable or combustible cargoes that, when transported in bulk, must be in vessels certificated under this subchapter D.

(b) A mixture or blend of two or more cargoes appearing in Table 30.25–1 may be transported under this subchapter D.

(c) A mixture or blend of one or more cargoes appearing in Table 30.25–1 and one or more cargoes appearing in Table 2, 46 CFR part 153, may be carried under this subchapter D if the mixture is flammable or combustible.

(d) Any mixture containing one or more substance categorized by the International Maritime Organization (IMO) and listed in Table 30.25–1 as a category X, Y, or Z noxious liquid substance (NLS) may be carried in bulk—

(1) Under this subchapter D if the vessel is not regulated under 46 CFR part 153;

(2) Under part 153 if the vessel is regulated under that part; or alternatively under 33 CFR part 151 in the case of a category Y oil-like NLS; or

(3) Under 33 CFR part 151 if the cargo is a category Z NLS or a mixture of non-NLS and category Z NLS cargoes.

TABLE 30.25–1—LIST OF FLAMMABLE AND COMBUSTIBLE BULK LIQUID CARGOES

[See NOTES at the end of the Table for explanation of symbols and terms used. See Table 2, 46 CFR part 153, for additional cargoes that may be carried by tank barge.]

Cargo name	IMO Annex II pollution category
Acetochlor*	X
Acetone	Z
Acetophenone	#
Acrylonitrile-Styrene copolymer dispersion in polyether polyol	Y
Alcohol(C6-C17)(secondary) poly(3-6)ethoxylates	Y
Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates	Y
Alcohol(C9-C11) poly(2.5-9)ethoxylate	Y
Alcohol(C12-C15) poly(. . . )ethoxylates, see Alcohol(C12-C16) poly(. . . ) ethoxylates	Y
Alcohol(C12-C16) poly(1-6)ethoxylates	Y
Alcohol(C12-C16) poly(7-19)ethoxylates	Y
Alcohol(C12-C16) poly(20+)ethoxylates	Y
Alcohols (C13+)	Y
Alcoholic beverages, n.o.s.	Z
Aliphatic oil	I
Alkanes (C6-C9)	X
Iso- and cyclo-alkanes (C10-C11)	Y
Iso- and cyclo-alkanes (C12+)	Y
n-Alkanes (C10+)	Y
Alkaryl polyethers (C9-C20)	Y
Alkenyl(C11+) amide*	X
Alkenyl(C8+) amine, Alkenyl(C12+) acid ester mixture	#
Alkyl acrylate-Vinylpyridine copolymer in toluene*	Y
Alkylbenzene, alkylindane, alkylindene mixture (each C12-C17)*	Z
Alkyl(C3-C4) benzenes*	Y
Alkyl(C5-C8) benzenes*	X
Alkyl(C8-C9) phenylamine in aromatic solvents*	Y
Alkyl(C9+) benzenes	Y
Alkyl(C11-C17) benzene sulfonic acid*	Y
Alkylbenzene sulfonic acid (4% or less)	#
Alkyl dithiocarbamate (C19-C35)*	Y
Alkyl dithiothiadiazole (C6-C24)	Y
Alkyl ester copolymer (C4-C20)	Y
Alkyl(C7-C11)phenol poly(4-12) ethoxylate	Y
Alkyl phenol sulfide (C8-C40), see Alkyl(C8-C40) phenol sulfide	
Alkyl(C8-C40) phenol sulfide	Z
Alkyl(C8-C9) phenylamine in aromatic solvents*	Y
Alkyl(C9-C15) phenyl propoxylate	Z
Alkyl(C8-C10) polyglucoside solution (65% or less)*	Y
Alkyl(C12-C14) polyglucoside solution (55% or less)*	Y
Alkyl(C8-C10)/(C12-C14):(40% or less/60% or more) polyglucoside solution (55% or less)*	Y
Alkyl(C8-C10)/(C12-C14):(60% or more/40% or less) polyglucoside solution (55% or less)	Y

TABLE 30.25-1—LIST OF FLAMMABLE AND COMBUSTIBLE BULK LIQUID CARGOES—Continued

[See NOTES at the end of the Table for explanation of symbols and terms used. See Table 2, 46 CFR part 153, for additional cargoes that may be carried by tank barge.]

Cargo name	IMO Annex II pollution category
Alkyl(C8-C10)/(C12-C14):(50%/50%) polyglucoside solution (55% or less)*	Y
Alkyl(C10-C20, saturated and unsaturated) phosphate *	Y
<i>n</i> -Alkyl phthalates, see individual phthalates	
Alkyl sulfonic acid ester of phenol	Y
Aminoethyldiethanolamine/Aminoethylethanolamine solution	Z
2-Amino-2-methyl-1-propanol *	Z
Amyl acetate (all isomers)	Y
Amyl alcohol (iso-, n-, sec-, primary, tert-)	Z
tert-Amyl ethyl ether *	Z
tert-Amyl methyl ether	X
<i>Amyl methyl ketone</i> , see Methyl amyl ketone	
<i>Amylene</i> , see Pentene (all isomers)	
Animal acid oil	#
Animal and Fish acid oils and distillates, n.o.s.	#
Animal and Fish oils, n.o.s.	#
Animal oil	#
Aromatic oil	I
Aryl polyolefins (C11-C50)	Y
Asphalt	I
Asphalt blending stocks:	
Roofers flux	I
Straight run residue	I
Aviation alkylates (C8 paraffins and iso-paraffins BPT 95-120°C) *	X
Barium long-chain alkyl (C8-C14) phenate sulfide	#
Beechnut oil	#
<i>Behenyl alcohol</i> , see Alcohols (C13+)	
Benzene tricarboxylic acid, trioctyl ester	Y
Benzyl acetate*	Y
Benzyl alcohol	Y
Brake fluid base mix: Poly(2-8)alkylene(C2-C3) glycols/Polyalkylene(C2-C10) glycols monoalkyl(C1-C4) ethers and their borate esters	Z
<i>Butene</i> , see Butylene	
Butene oligomer	X
Butyl acetate (all isomers)	Y
<i>Butyl alcohol</i> (iso-, n-, sec-, tert-), see Butyl alcohol (all isomers)	
Butyl alcohol (all isomers)	Z
Butylbenzene (all isomers) *	X
Butyl benzyl phthalate	X
Butyl butyrate (all isomers) *	Y
Butylene glycol	Z
<i>1,3-Butylene glycol</i> , see Butylene glycol	
iso-Butyl formate	#
n-Butyl formate	#
Butyl heptyl ketone	#
<i>Butyl methyl ketone</i> , see Methyl butyl ketone	
n-Butyl propionate	Y
Butyl stearate	#
Butyl toluene	#
gamma-Butyrolactone	Y
Calcium alkyl(C9)phenol sulfide, polyolefin phosphorosulfide mixture	#
<i>Calcium alkyl salicylate</i> , see Calcium long-chain alkyl salicylate (C13+)	
Calcium long-chain alkaryl sulfonate (C11-C50)	#
<i>Calcium long-chain alkyl phenate</i> (C8-C40), see Calcium long-chain alkyl(C5-C10) phenate or Calcium long-chain alkyl(C11-C40) phenate	
Calcium long-chain alkyl(C5-C10) phenate	Y
Calcium long-chain alkyl(C11-C40) phenate	Y
Calcium long-chain alkyl phenolic amine (C8-C40)	#
Calcium long-chain alkyl salicylate (C13+)	Y
<i>Candelilla wax</i> , see Waxes	
<i>Caprolactam solutions</i> , see epsilon-Caprolactam (molten or aqueous solutions)	
epsilon-Caprolactam (molten or aqueous solutions) *	Z
<i>Carnauba wax</i> , see Waxes	
<i>Cetyl alcohol</i> , see Alcohols (C13+)	
<i>Cetyl- stearyl alcohol</i> , see Alcohols (C13+)	
Chlorinated paraffins (C10-C13) *	X
1-(4-Chlorophenyl)-4,4-dimethyl-pentan-3-one *	Y
Citric acid (70% or less) *	Z
Clarified oil	I

TABLE 30.25-1—LIST OF FLAMMABLE AND COMBUSTIBLE BULK LIQUID CARGOES—Continued

[See NOTES at the end of the Table for explanation of symbols and terms used. See Table 2, 46 CFR part 153, for additional cargoes that may be carried by tank barge.]

Cargo name	IMO Annex II pollution category
Coal oil	#
Coconut oil fatty acid methyl ester *	Y
Cod liver oil	#
Copper salt of long-chain (C17+) alkanolic acid	Y
Corn acid oil	#
Cotton seed acid oil	#
<i>Cotton seed, fatty acid, see Cotton seed oil, fatty acid</i>	
Cotton seed oil, fatty acid	#
Crude Isononylaldehyde	#
Crude Isopropanol	@Z
† Crude oil	I
<i>Cumene, see Propylbenzene (all isomers)</i>	
Cycloheptane *	X
Cyclohexane	Y
Cyclohexanol	Y
Cyclohexyl acetate *	Y
1,3-Cyclopentadiene dimer (molten)	Y*
Cyclopentane *	Y
Cyclopentene *	Y
p-Cymene	Y
Dark mixed acid oil	#
Decahydronaphthalene	Y
iso-Decaldehyde	#
n-Decaldehyde	#
<i>Decane, see n-Alkanes (C10+)</i>	
Decanoic acid *	X
Decene	X
Decyl acetate	#
Decyl alcohol (all isomers)	Y
<i>n-Decylbenzene, see Alkyl(C9+)benzenes</i>	
<i>Detergent alkylate, see Alkyl(C9+)benzenes</i>	
Diacetone alcohol	Z
<i>Dialkyl(C10-C14) benzenes, see Alkyl(C9+) benzenes</i>	
Dialkyl(C8-C9) diphenylamines	Z
Dialkyl(C7-C13) phthalates	X
<i>Including:</i>	
<i>Diisodecyl phthalate.</i>	
<i>Diisononyl phthalate.</i>	
<i>Dinonyl phthalate.</i>	
<i>Ditridecyl phthalate.</i>	
<i>Diundecyl phthalate.</i>	
<i>Dibutyl carbinol, see Nonyl alcohol (all isomers)</i>	
Dibutyl hydrogen phosphonate *	Y
2,6-Di-tert-butylphenol *	X
Dibutyl phthalate *	X
<i>ortho-Dibutyl phthalate, see Dibutyl phthalate</i>	
Dibutyl terephthalate *	Y
<i>Dicyclopentadiene, see 1,3-Cyclopentadiene dimer (molten)</i>	
Diesel oil	I
Diethylbenzene	Y
Diethylene glycol	Z
<i>Diethylene glycol butyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether</i>	
<i>Diethylene glycol butyl ether acetate, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate</i>	
Diethylene glycol diethyl ether	Z
<i>Diethylene glycol ethyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether</i>	
<i>Diethylene glycol ethyl ether acetate, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate</i>	
<i>Diethylene glycol n-hexyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether</i>	
<i>Diethylene glycol methyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether</i>	
<i>Diethylene glycol methyl ether acetate, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate</i>	
Diethylene glycol phenyl ether	#
Diethylene glycol phthalate	Y
<i>Diethylene glycol propyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether</i>	
Di-(2-ethylhexyl)adipate	Y
<i>Di-(2-ethylhexyl)phthalate, see Dioctyl phthalate</i>	
Diethyl phthalate	Y
Diglycidyl ether of bisphenol A	X
Diglycidyl ether of bisphenol F *	Y
Diheptyl phthalate	Y



TABLE 30.25-1—LIST OF FLAMMABLE AND COMBUSTIBLE BULK LIQUID CARGOES—Continued

[See NOTES at the end of the Table for explanation of symbols and terms used. See Table 2, 46 CFR part 153, for additional cargoes that may be carried by tank barge.]

Cargo name	IMO Annex II pollution category
Di-n-hexyl adipate *	X
Dihexyl phthalate	Y
<i>Diisobutyl carbinol, see Nonyl alcohol (all isomers)</i>	
Diisobutylene	Y
Diisobutyl ketone	Y
Diisobutyl phthalate	X
<i>Diisodecyl phthalate, see Dialkyl(C7-C13) phthalates</i>	
Diisononyl adipate	Y
<i>Diisononyl phthalate, see Dialkyl(C7-C13) phthalates</i>	
Diisooctyl phthalate	Y
Diisopropylbenzene (all isomers)	X
Diisopropylnaphthalene	Y
Dimethyl adipate	X
<i>Dimethylbenzene, see Xylenes</i>	
Dimethyl glutarate	Y
Dimethyl octanoic acid *	Y
Dimethyl phthalate	Y
Dimethylpolysiloxane	Y
2,2-Dimethylpropane-1,3-diol (molten or solution)	Z
Dimethyl succinate	Y
Dinonyl phthalate	Y
Diocetyl phthalate	X
Dipentene	Y
Diphenyl	X
Diphenylamine (molten) *	Y
Diphenylamines, alkylated *	Y
Diphenyl/Diphenyl ether mixtures	X
Diphenyl ether	X
Diphenyl ether/Diphenyl phenyl ether mixture	X
Diphenylol propane-epichlorohydrin resins *	X
Dipropylene glycol	Z
<i>Dipropylene glycol butyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether</i>	
Dipropylene glycol dibenzoate	#
<i>Dipropylene glycol methyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether</i>	
Dithiocarbamate ester (C7-C35) *	X
Distillates:	
Flashed feed stocks	I
Straight run	I
Diundecyl phthalate	Y
Dodecane (all isomers)	Y
<i>Dodecanol, see Dodecyl alcohol</i>	
Dodecene (all isomers)	X
Dodecyl alcohol	Y
<i>Dodecyl benzene, see Alkyl (C9+) benzenes</i>	
Dodecyl hydroxypropyl sulfide	X
Dodecyl phenol	X
Dodecyl xylene	Y
Drilling brines (containing zinc salts) (if flammable or combustible) *	X
Drilling brines, including: Calcium bromide solution, calcium chloride solution and sodium chloride solution (if flammable or combustible) *	Z
Drilling mud (low toxicity) (if flammable or combustible)	#
<i>ETBE, see Ethyl tert-butyl ether</i>	
2-Ethoxyethyl acetate	Y
<i>Ethoxylated alkyl/alkoxy alkyl amine, see Ethoxylated long-chain (C16+) alkyloxyalkylamine</i>	
Ethoxy triglycol (crude)	#
Ethyl acetate	Z
Ethyl acetoacetate	Z
Ethyl alcohol	Z
Ethyl amyl ketone	Y
Ethylbenzene	Y
Ethyl butanol	#
Ethyl tert-butyl ether	Y
Ethyl butyrate	Y
Ethyl cyclohexane	Y
S-Ethyl dipropylthiocarbamate *	Y
Ethylene carbonate	Z
Ethylene glycol	Y
Ethylene glycol acetate	Y

TABLE 30.25-1—LIST OF FLAMMABLE AND COMBUSTIBLE BULK LIQUID CARGOES—Continued

[See NOTES at the end of the Table for explanation of symbols and terms used. See Table 2, 46 CFR part 153, for additional cargoes that may be carried by tank barge.]

Cargo name	IMO Annex II pollution category
Ethylene glycol butyl ether acetate	Y
Ethylene glycol diacetate	Y
Ethylene glycol dibutyl ether	#
<i>Ethylene glycol ethyl ether acetate, see 2-Ethoxyethyl acetate</i>	
Ethylene glycol methyl butyl ether	#
Ethylene glycol methyl ether acetate	Y
Ethylene glycol phenyl ether	Z
Ethylene glycol phenyl ether/Diethylene glycol phenyl ether mixture	Z
Ethyl-3-ethoxypropionate	Y
<i>2-Ethylhexaldehyde, see Octyl aldehydes</i>	
2-Ethylhexanoic acid	Y
<i>Ethylhexoic acid, see 2-Ethylhexanoic acid</i>	
<i>2-Ethylhexanol, see Octanol (all isomers)</i>	
Ethyl hexyl phthalate	#
2-Ethyl-2-(hydroxymethyl) propane-1,3-diol, (C8-C10) ester	Y
Ethyl propionate	Y
Ethyl toluene	Y
Fatty acid (saturated, C13+)	Y
Fatty acids, (C16+)*	Y
Fatty acids, essentially linear (C6-C18) 2-ethylhexyl ester*	Y
Fish acid oil	#
Formamide	Y
Furfuryl alcohol	Y
† Gas oil, cracked	I
Gas oil, high pour	I
Gas oil, low pour	I
Gas oil, low sulfur	I
Gasoline blending stocks:	
Alkylates	I
† Reformates	I
Gasolines:	
† Automotive (containing not over 4.23 grams lead per gallon)	I
† Aviation (containing not over 4.86 grams lead per gallon)	I
Casinghead (natural)	I
Polymer	I
† Straight run	I
Gasoline (Natural gas condensate)	I
Glycerine	Z
Glycerine (83%), Dioxanedimethanol (17%) mixture	#
<i>Glycerol, see Glycerine</i>	
Glycerol ethoxylated*	OS
Glycerol monooleate	Y
Glycerol polyalkoxylate	#
Glycerol, propoxylated and ethoxylated*	Z
Glycerol/sucrose blend propoxylated and ethoxylated*	Z
Glyceryl triacetate	Z
<i>Glycidyl ester of tridecyl acetic acid, see Glycidyl ester of C10 trialkylacetic acid</i>	
<i>Glycidyl ester of versatic acid, see Glycidyl ester of C10 trialkylacetic acid</i>	
Glycidyl ester of C10 trialkylacetic acid	Y
<i>Glycol diacetate, see Ethylene glycol diacetate</i>	
<i>Glycol triacetate, see Glyceryl triacetate</i>	
Glyoxal solution (40% or less)	Y
Glyphosate solution (not containing surfactant)	Y
Groundnut acid oil	#
Groundnut oil*	Y
Hazelnut oil	#
Heartcut distillate	I
<i>Heptadecane, see n-Alkanes (C10+)</i>	
Heptane (all isomers)	X
<i>Heptanoic acid, see n-Heptanoic acid</i>	
n-Heptanoic acid*	Z
Heptanol (all isomers)	Y
Heptene (all isomers)	Y
Heptyl acetate	Y
<i>Herbicide (C15H22NO2Cl), see N-(2-Methoxy-1-methyl ethyl)-2-ethyl-6-methylchloroacetanilide</i>	
<i>Hexadecanol, see Alcohol (C 13+)</i>	
1-Hexadecylnaphthalene/1,4-Bis(hexadecyl)naphthalene mixture	Y
<i>Hexaethylene glycol, see Polyethylene glycol</i>	

TABLE 30.25-1—LIST OF FLAMMABLE AND COMBUSTIBLE BULK LIQUID CARGOES—Continued

[See NOTES at the end of the Table for explanation of symbols and terms used. See Table 2, 46 CFR part 153, for additional cargoes that may be carried by tank barge.]

Cargo name	IMO Annex II pollution category
Hexamethylene glycol	Z
Hexamethylenetetramine solutions	Z
Hexane (all isomers)	Y
1,6-Hexanediol, distillation overheads*	Y
Hexanoic acid	Y
Hexanol	Y
Hexene (all isomers)	Y
Hexyl acetate	Y
Hexylene glycol	Z
Hydrogenated starch hydrolysate*	OS
2-Hydroxy-4-(methylthio)butanoic acid	Z
<i>Hydroxy terminated polybutadiene, see Polybutadiene, hydroxy terminated</i>	
Illipe oil*	Y
Isoamyl alcohol*	Z
Isobutyl alcohol*	Z
Isobutyl formate*	Z
Isobutyl methacrylate*	Z
Isopropyl acetate*	Z
Isopropyl alcohol*	Z
Isopropylcyclohexane*	Y
Jatropha oil*	Y
Jet fuels:	
† JP-4	I
JP-5 (kerosene, heavy)	I
JP-8	I
Kerosene	I
Lactic acid	Z
Lanolin oil	#
Lard acid oil	#
Latex: Carboxylated styrene-Butadiene copolymer; Styrene-Butadiene rubber*	Z
Lauric acid*	X
Lecithin	OS
Long-chain alkaryl polyether (C11-C20)	Y
Long-chain alkaryl sulfonic acid (C16-C60)	Y
Long-chain alkylphenate/Phenol sulfide mixture	Y
Lubricating oil	I
L-Lysine solution (60% or less)*	Z
Magnesium long-chain alkaryl sulfonate (C11-C50)	Y
Magnesium long-chain alkyl phenate sulfide (C8-C20)	#
Magnesium long-chain alkyl salicylate (C11+)	Y
<i>Magnesium nonyl phenol sulfide, see Magnesium long-chain alkyl phenate sulfide (C8-C20)</i>	
Mango kernel oil*	Y
2-Mercaptobenzothiazol (in liquid mixtures)	#
3-Methoxy-1-butanol	Z
3-Methoxybutyl acetate	Y
1-Methoxy-2-propyl acetate	#
N-(2-Methoxy-1-methyl ethyl)-2-ethyl-6-methylchloroacetanilide*	X
<i>Methoxy triglycol, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether</i>	
Methyl acetate	Z
Methyl acetoacetate	Z
Methyl alcohol	Y
Methylamyl acetate	Y
Methylamyl alcohol	Z
Methyl amyl ketone	Z
<i>Methyl butanol, see the amyl alcohols</i>	
Methylbutenol	Y
Methyl tert-butyl ether	Z
Methyl butyl ketone	Y
Methylbutynol*	Z
Methyl butyrate	Y
Methylcyclohexane*	Y
Methylcyclopentadiene dimmer*	Y
Methyl 3-(3,5 di-tert-butyl-4-hydroxyphenyl)propionate crude melt*	[Y]
Methyl ethyl ketone	Z
N-Methylglucamine solution (70% or less)	Z
Methyl heptyl ketone	#
<i>Methyl isobutyl carbinol, see Methyl amyl alcohol</i>	
Methyl isobutyl ketone	Z

TABLE 30.25-1—LIST OF FLAMMABLE AND COMBUSTIBLE BULK LIQUID CARGOES—Continued

[See NOTES at the end of the Table for explanation of symbols and terms used. See Table 2, 46 CFR part 153, for additional cargoes that may be carried by tank barge.]

Cargo name	IMO Annex II pollution category
3-Methyl-3-methoxybutanol	Z
3-Methyl-3-methoxybutyl acetate	#
<i>Methyl pentene, see Hexene (all isomers)</i>	
<i>Methyl tert-pentyl ether, see tert-Amyl methyl ether</i>	
2-Methyl-1,3-propanediol	Z
Methyl propyl ketone	Z
N-Methyl-2-pyrrolidone	Y
Methyl salicylate*	Y
<i>Metolachlor, see N-(2-Methoxy-1-methylethyl)-2-ethyl-6-methylchloroacetanilide</i>	
Mineral oil	I
Mineral seal oil	I
Mineral spirits	I
Mixed acid oil	#
Mixed general acid oil	#
Mixed hard acid oil	#
Mixed soft acid oil	#
Motor oil	I
<i>MTBE, see Methyl tert-butyl ether</i>	
Myrcene	X
Naphtha:	
† Aromatic (having less than 10% Benzene)	I
Heavy	I
Paraffinic	I
† Petroleum	I
† Solvent	I
Stoddard Solvent	I
† Varnish makers' and painters' (75%)	I
Naphthenic acid	#
Neatsfoot oil	#
Neodecanoic acid*	Y
Nitritotriacetic acid, trisodium salt solution*	Y
Nonane (all isomers)	X
Nonanoic acid (all isomers)	Y
Nonanoic, Tridecanoic acid mixture	#
Nonene (all isomers)	Y
Nonyl acetate	#
Nonyl alcohol (all isomers)	Y
Nonyl methacrylate monomer	Y
Nonylphenol	X
Nonylphenol poly(4+)ethoxylate	Y
<i>Nonyl phenol sulfide (90% or less), see Alkyl (C8-C40) phenol sulfide</i>	
Noxious liquid, F, (2) n.o.s. ("trade name" contains "principle components") ST 1, Cat X	X
Noxious liquid, F, (4) n.o.s. ("trade name" contains "principle components") ST 2, Cat X	X
Noxious liquid, F, (6) n.o.s. ("trade name" contains "principle components") ST 2, Cat Y	Y
Noxious liquid, F, (8) n.o.s. ("trade name" contains "principle components") ST 3, Cat Y	Y
Noxious liquid, F, (10) n.o.s. ("trade name" contains "principle components") ST 3, Cat Z	Z
Noxious liquid, (11) n.o.s. ("trade name" contains "principle components") Cat Z (if flammable or combustible)	Z
Non noxious liquid, (12) n.o.s. ("trade name" contains "principle components") Cat OS (if flammable or combustible)	OS
Nutmeg butter oil	#
<i>Octadecanol, see Alcohols (C13+)</i>	
<i>Octadecene, see the olefin or alpha-olefin entries</i>	
Octadeceneamide solution	#
Octamethylcyclotetrasiloxane*	Y
Octane (all isomers)	X
Octanoic acid (all isomers)	Y
Octanol (all isomers)	Y
Octene (all isomers)	Y
<i>Octyl acetate, see n-Octyl acetate</i>	
n-Octyl acetate*	Y
<i>Octyl alcohol (iso-, n-), see Octanol (all isomers)</i>	
Octyl aldehydes	Y
Octyl decyl adipate	Y
<i>Octyl phthalate, see Dioctyl phthalate</i>	
Oil, edible: Poppy seed	I
Oil, fuel:	
No. 1 (kerosene)	I
No. 1-D	I
No. 2	I

TABLE 30.25-1—LIST OF FLAMMABLE AND COMBUSTIBLE BULK LIQUID CARGOES—Continued

[See NOTES at the end of the Table for explanation of symbols and terms used. See Table 2, 46 CFR part 153, for additional cargoes that may be carried by tank barge.]

Cargo name	IMO Annex II pollution category
No. 2-D	I
No. 4	I
No. 5	I
No. 6	I
Oiticica oil	#
alpha-Olefins (C6-C18) mixtures	X
<i>alpha-Olefins (C13-C18) mixtures, see alpha-Olefins (C6-C18)</i>	
Olefins (C13+, all isomers)	Y
Olefin-Alkyl ester copolymer (molecular weight 2000+)	Y
Olefin mixtures (C5-C7)	Y
Olefin mixtures (C5-C15)	X
Oleic acid	Y
<i>Oleyl alcohol, see Alcohols (C13+)</i>	
Orange juice (concentrated) *	OS
Palm kernel acid oil, methyl ester	#
Palm kernel olein *	Y
Palm kernel stearin *	Y
Palm mid-fraction *	Y
Palm oil fatty acid methyl ester *	Y
Palm olein *	Y
Palm stearin *	Y
Paraffin wax	Y
<i>n-Paraffins (C10-C20), see n-Alkanes (C10+)</i>	
<i>Peanut oil, see Groundnut oil</i>	
Peel oil (oranges and lemons)	#
Penetrating oil	I
<i>Pentadecanol, see Alcohols (C13+)</i>	
<i>Pentaethylene glycol, see Polyethylene glycols</i>	
Pentane (all isomers)	Y
Pentanoic acid	Y
Pentene (all isomers)	Y
<i>n</i> -Pentyl propionate	Y
Perilla oil	#
Petrolatum	Y
1-Phenyl-1-xylyl ethane	Y
Phosphate esters, alkyl (C12-C14) amine	Y
Phosphosulfurized bicyclic terpene	#
Pilchard oil	#
<i>Pinene, see the alpha- or beta- isomers</i>	
alpha-Pinene	X
beta-Pinene	X
Pine oil *	X
Polyalkyl(C18-C22) acrylate in xylene *	Y
Polyalkylene glycols, polyalkylene glycol monoalkyl ethers mixtures	#
Polyalkylalkenaminesuccinimide, molybdenum oxysulfide *	Y
<i>Polyalkylene glycol butyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether</i>	
Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether	Z
<i>Including:</i>	
<i>Diethylene glycol butyl ether.</i>	
<i>Diethylene glycol ethyl ether.</i>	
<i>Diethylene glycol n-hexyl ether.</i>	
<i>Diethylene glycol methyl ether.</i>	
<i>Diethylene glycol n-propyl ether.</i>	
<i>Dipropylene glycol butyl ether.</i>	
<i>Dipropylene glycol methyl ether.</i>	
<i>Polypropylene glycol methyl ether.</i>	
<i>Triethylene glycol butyl ether.</i>	
<i>Triethylene glycol ethyl ether.</i>	
<i>Triethylene glycol methyl ether.</i>	
<i>Tripropylene glycol methyl ether.</i>	
Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether acetate	Y
<i>Including:</i>	
<i>Diethylene glycol butyl ether acetate.</i>	
<i>Diethylene glycol ethyl ether acetate.</i>	
<i>Diethylene glycol methyl ether acetate.</i>	
Polyalkylene oxide polyol	#
Polyalkyl(C10-C20) methacrylate	Y
Polyalkyl(C10-C18) methacrylate/ethylene-propylene copolymer mixture *	Y

TABLE 30.25-1—LIST OF FLAMMABLE AND COMBUSTIBLE BULK LIQUID CARGOES—Continued

[See NOTES at the end of the Table for explanation of symbols and terms used. See Table 2, 46 CFR part 153, for additional cargoes that may be carried by tank barge.]

Cargo name	IMO Annex II pollution category
Polybutadiene, hydroxy terminated	#
Polybutene	Y
Polybutenyl succinimide	Y
Poly(2+)cyclic aromatics *	X
<i>Polydimethylsiloxane, see Dimethylpolysiloxane</i>	
Polyether (molecular weight 1350+)	Y
Polyether polyols	#
Polyethylene glycol	Z
Polyethylene glycol dimethyl ether	Z
Poly(ethylene glycol) methylbutenyl ether (MW≤1000) *	Z
<i>Polyethylene glycol monoalkyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether</i>	
Polyglycerine, sodium salt solution (containing less than 3% sodium hydroxide)	Z
Polyglycerol	#
Polyisobutenamine in aliphatic (C10-C14) solvent *	Y
Polyisobutenyl anhydride adduct	Z
Poly(4+)isobutylene	Y
Polymerized esters	#
Polyolefin amide alkeneamine (C17+)	Y
<i>Polyolefin amide alkeneamine (C28+), see Polyolefin amide alkeneamine (C17+)</i>	
Polyolefin amide alkeneamine borate (C28-C250)	Y
Polyolefin amide alkeneamine/Molybdenum oxysulfide mixture	#
Polyolefin amide alkeneamine polyol	Y
Polyolefinamine (C28-C250) *	Y
Polyolefinamine in alkyl (C2-C4) benzenes *	Y
Polyolefinamine in aromatic solvent *	Y
Polyolefin aminoester salts (molecular weight 2000+) *	Y
Polyolefin anhydride	Y
Polyolefin ester (C28-C250)	Y
Polyolefin phenolic amine (C28-C250)	Y
Polyolefin phosphorosulfide, barium derivative (C28-C250)	Y
Poly(20)oxyethylene sorbitan monooleate	Y
Poly(5+)propylene	Y
<i>Polypropylene glycol methyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether</i>	
Polysiloxane	Y
Poppy oil	#
Potassium oleate	Y
Potassium salt of polyolefin acid	#
<i>n-Propoxypropanol, see Propylene glycol monoalkyl ether</i>	
<i>n-Propyl acetate</i>	Y
<i>n-Propyl alcohol</i>	Y
<i>iso-Propylbenzene, see Propylbenzene (all isomers)</i>	
<i>n-Propylbenzene, see Propylbenzene (all isomers)</i>	
Propylbenzene (all isomers)	Y
Propylene-Butylene copolymer	#
Propylene carbonate	Z
Propylene dimer	#
Propylene glycol	Z
<i>Propylene glycol n-butyl ether, see Propylene glycol monoalkyl ether</i>	
<i>Propylene glycol ethyl ether, see Propylene glycol monoalkyl ether</i>	
<i>Propylene glycol methyl ether, see Propylene glycol monoalkyl ether</i>	
Propylene glycol methyl ether acetate	Z
Propylene glycol monoalkyl ether	Z
<i>Including:</i>	
<i>n-Propoxypropanol.</i>	
<i>Propylene glycol n-butyl ether.</i>	
<i>Propylene glycol ethyl ether.</i>	
<i>Propylene glycol methyl ether.</i>	
<i>Propylene glycol propyl ether.</i>	
Propylene glycol phenyl ether	Z
<i>Propylene glycol propyl ether, see Propylene glycol monoalkyl ether</i>	
Propylene polymer (in liquid mixtures)	#
Propylene tetramer	X
Propylene trimer	Y
<i>Pseudocumene, see Trimethylbenzenes</i>	
Raisin seed oil	#
Rapeseed acid oil	#
Rape seed oil fatty acid methyl esters*	Y
Residual oil	I

TABLE 30.25-1—LIST OF FLAMMABLE AND COMBUSTIBLE BULK LIQUID CARGOES—Continued

[See NOTES at the end of the Table for explanation of symbols and terms used. See Table 2, 46 CFR part 153, for additional cargoes that may be carried by tank barge.]

Cargo name	IMO Annex II pollution category
Road oil	I
Rosin *	Y
Rosin oil	#
<i>Rum</i> , see Alcoholic beverages, n.o.s	
Safflower acid oil	#
Salad oil	#
Seal oil	I
Sesame oil	#
Soapstock oil	#
Sodium acetate, Glycol, Water mixture (containing 1% or less, Sodium hydroxide) (if flammable or combustible)	#
Sodium benzoate	Z
Sodium long-chain alkyl salicylate (C13+)	#
Sodium thiocyanate solution (56% or less) *	Y
Soya acid oil	#
Soyabean fatty acid methyl ester	#
Soyabean oil (epoxidized)	#
Spindle oil	I
<i>Stearic acid</i> , see Fatty acid (saturated, C13+)	
<i>Stearyl alcohol</i> , see Alcohols (C13+)	
Sulfohydrocarbon (C3-C88)	Y
Sulfohydrocarbon, long-chain (C18+) alkylamine	#
Sulfolane	Y
Sulfurized fat (C14-C20)	Z
Sulfurized polyolefinamide alkene(C28-C250) amine	Z
<i>Sunflower oil</i> , see Sunflower seed acid oil	
Sunflower seed acid oil	#
Tall oil, distilled *	Y
Tall oil, fatty acid	#
Tallow	Y
<i>Tallow alcohol</i> , see Alcohols (C13+)	
Tallow alkyl nitrile	#
Tallow fatty acid	Y
<i>TAME</i> , see tert-Amyl methyl ether	
<i>Tetradecanol</i> , see Alcohols (C13+)	
<i>Tetradecene</i> , see alpha-Olefins (C6-C18) mixtures, Olefin mixtures (C5-C15), or Olefins (C13+, all isomers)	
<i>Tetradecylbenzene</i> , see Alkyl(C9+)benzenes	
Tetraethylene glycol	Z
Tetraethyl silicate monomer/oligomer (20% in ethanol) *	Z
Tetrahydronaphthalene	Y
Tetramethylbenzene (all isomers) *	X
<i>Tetrapropylbenzene</i> , see Alkyl(C9+)benzenes	
Toluene	Y
Transformer oil	I
<i>Triarylphosphate</i> , see Triisopropylated phenyl phosphates	
Tributyl phosphate	Y
Tridecane	Y
Tridecanoic acid	Y
<i>Tridecanol</i> , see Alcohols (C13+)	
<i>Tridecene</i> , see Olefins (C13+, all isomers)	
Tridecyl acetate	Y
<i>Tridecylbenzene</i> , see Alkyl(C9+)benzenes	
Triethylbenzene	X
Triethylene glycol	Z
<i>Triethylene glycol butyl ether</i> , see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether	
Triethylene glycol butyl ether mixture	#
Triethylene glycol di-(2-ethylbutyrate)	#
Triethylene glycol ether mixture	#
<i>Triethylene glycol ethyl ether</i> , see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether	
<i>Triethylene glycol methyl ether</i> , see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether	
Triethyl phosphate	Z
Triisooctyl trimellitate	#
Triisopropanolamine	Z
Triisopropylated phenyl phosphates	X
Trimethylbenzene (all isomers)	X
2,2,4-Trimethyl-1,3-pentanediol diisobutyrate	Y
2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate *	Y
2,2,4-Trimethyl-3-pentanol-1-isobutyrate	#
<i>Tripropylene</i> , see Propylene trimer	

TABLE 30.25-1—LIST OF FLAMMABLE AND COMBUSTIBLE BULK LIQUID CARGOES—Continued

[See NOTES at the end of the Table for explanation of symbols and terms used. See Table 2, 46 CFR part 153, for additional cargoes that may be carried by tank barge.]

Cargo name	IMO Annex II pollution category
Tripropylene glycol	Z
<i>Tripropylene glycol methyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether</i>	
<i>Trixylenyl phosphate, see Trixylyl phosphate</i>	
Trixylyl phosphate	X
Tucum oil	#
Turbine oil	I
Turpentine	X
† <i>Turpentine substitute, see White spirit (low (15–20%) aromatic)</i>	
Undecanoic acid	Y
<i>1-Undecanol, see Undecyl alcohol</i>	
<i>Undecene, see 1-Undecene</i>	
1-Undecene	X
<i>1-Undecyl alcohol, see Undecyl alcohol</i>	
Undecyl alcohol	X
<i>Undecylbenzene, see Alkyl(C9+)benzenes</i>	
Vegetable oils, n.o.s.	#
Vegetable protein solution (hydrolyzed) (if flammable or combustible)*	OS
Walnut oil	#
Waxes	Y
† <i>White spirit, see White spirit (low (15–20%) aromatic)</i>	
† White spirit, low (15–20%) aromatic	Y
<i>Wine, see Alcoholic beverages, n.o.s</i>	
Xylenes	Y
Xylenes/Ethylbenzene (10% or more) mixture*	Y
Zinc alkaryl dithiophosphate (C7-C16)	Y
Zinc alkenyl carboxamide	Y
Zinc alkyl dithiophosphate (C3-C14)	Y

NOTES:

“#” = NLS status is undetermined—see 46 CFR 153.900(c) for shipping on an oceangoing vessel.

“†” = Marine occupational safety and health regulations for benzene, 46 CFR part 197, subpart C, may apply to this cargo.

“[ ]” = Provisional categorization to which the United States is party.

“@” = The NLS category has been assigned by the U.S. Coast Guard, in absence of one assigned by the IMO. The category is based upon a GESAMP Hazard Profile or by analogy to a closely related product having an NLS assigned.

“\*\*” = From the March 2012 Annex to the 2007 edition of the IBC Code.

“Cat” = Pollution category.

“F” = Flammable (flash point less than or equal to 60 degrees C (140 degrees F) NLS.

“I” = An “oil” under MARPOL Annex I.

*Italicized words are not part of the cargo name but may be used in addition to the cargo name.*

“n.o.s.” = Not otherwise specified.

“OS” = An “other substance” considered at present to present no harm to marine resources, human health, amenities, or other legitimate uses of the sea when discharged into the sea from tank cleaning or deballasting operations.

“see” = A redirection to the preferred, alternative cargo name—for example in “*Diethyl ether, see Ethyl ether,*” the pollution category for “diethyl ether” will be found under the preferred, alternative cargo name “ethyl ether.”

“ST” = Ship type.

“X,” “Y,” and “Z” = NLS categories under MARPOL Annex II.

**PART 150—COMPATIBILITY OF CARGOES**

■ 3. The authority citation for part 150 continues to read as follows:

Authority: 46 U.S.C. 3306, 3703; Department of Homeland Security Delegation No. 0170.1. Section 150.105 issued under 44 U.S.C. 3507; Department of Homeland Security Delegation No. 0170.1.

■ 4. Revise Table I to Part 150 to read as follows:

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
Acetaldehyde	19		AAD.	
Acetic acid	4	2	AAC.	
Acetic anhydride	11	2	ACA.	
Acetochlor	10		ACG.	
Acetone	18	2	ACT.	
Acetone cyanohydrin	0	1, 2	ACY.	
Acetonitrile	37		ATN.	
Acetonitrile (low purity grade)*	37	3	AIL.	
Acetophenone	18		ACP.	



TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
<i>Acid oil mixture from soybean, corn (maize) and sunflower oil refining, see Oil, misc: Acid mixture from soybean, corn (maize) and sunflower oil refining*.</i>	34	3	.....	AOM.
Acrolein .....	19	2	ARL.	
Acrylamide solution (50% or less)* .....	10	3	AAM .....	AAO.
Acrylic acid .....	4	2	ACR.	
Acrylic acid/ethenesulfonic acid copolymer with phosphonate groups, sodium salt solution*.	30	3	APG.	
Acrylonitrile .....	15	2	ACN.	
Acrylonitrile-Styrene copolymer dispersion in Polyether polyol ....	20	.....	ALE.	
Adiponitrile .....	37	.....	ADN.	
Alachlor technical (90% or more)* .....	33	3	ALH .....	ALI.
Alcohol (C12-C13, branched and linear) poly (4-8) propoxy sulfates, sodium salt 25-30% solution*.	41	3	ABL.	
Alcohol (C9-C11) poly (2.5-9) ethoxylates* .....	40	3	AET .....	ALY/APV/APW.
Alcohol (C6-C17) (secondary) poly (3-6) ethoxylates* .....	40	3	AEA .....	AEB.
Alcohol (C6-C17) (secondary) poly (7-12) ethoxylates* .....	40	3	AEB .....	AEA.
Alcohol (C12-C16) poly (1-6) ethoxylates* .....	40	3	AED .....	AET/ALY/APW.
Alcohol (C12-C16) poly (7-19) ethoxylates* .....	40	3	APV .....	AET/ALY/APV.
Alcohol (C12-C16) poly (20+) ethoxylates* .....	40	3	APW .....	AET/ALY.
Alcoholic beverages, n.o.s.* .....	20	3	ABV.	
Alcohols (C13+) .....	20	.....	ALY .....	ASY/AYK.
<i>Including:</i>				
<i>Oleyl alcohol (octadecanol).</i>				
<i>Pentadecanol.</i>				
<i>Tallow alcohol.</i>				
<i>Tetradecanol.</i>				
<i>Tridecanol.</i>				
Alcohol polyethoxylates .....	20	.....	.....	AEA/AEB/AED/AET/APV/APW.
Alcohol polyethoxylates, secondary .....	20	.....	.....	AEB/AEA.
<i>Alcohol (C12-C15) poly (. . .) ethoxylate, see Alcohol (C12-C16) poly (. . .) ethoxylate.</i>	20	.....	.....	
Alcohols (C12+), primary, linear* .....	20	3	ASY .....	ALR/AYK/AYL.
Alcohols (C8-C11), primary, linear and essentially linear .....	20	.....	ALR .....	AYK/AYL.
Alcohols (C12-C13), primary, linear and essentially linear* .....	20	3	AYK .....	ALR/ASY/AYL.
Alcohols (C14-C18), primary, linear and essentially linear* .....	20	3	AYL .....	ALR/ASY/AYK.
Alkanes (C6-C9) .....	31	.....	ALK.	
<i>Including:</i>				
<i>Heptanes.</i>				
<i>Hexanes.</i>				
<i>Nonanes.</i>				
<i>Octanes.</i>				
iso- & cyclo-Alkanes (C10-C11) .....	31	.....	AKI.	
iso- & cyclo-Alkanes (C12+) .....	31	.....	AKJ.	
Alkanes (C10-C26), linear and branched (flash point > 60 °C)*	31	3	ABD.	
n-Alkanes (C10+) (all isomers) .....	31	.....	ALV .....	ALJ.
<i>Including:</i>				
<i>Decanes.</i>				
<i>Dodecanes.</i>				
<i>Heptadecanes.</i>				
<i>Tridecanes.</i>				
<i>Undecanes.</i>				
<i>Alkane (C14-C17) sulfonic acid, sodium salt solutions, see Sodium alkyl (C14-C17) sulfonates (60-65% solution).</i>	34	.....	AKA .....	SAA (AKE/SSU).
Alkaryl polyethers (C9-C20) .....	41	.....	AKP.	
Alkenoic acid, polyhydroxy ester borated* .....	0	1, 3	AAY.	
Alkenyl(C11+)amide .....	10	.....	AKM.	
Alkenyl (C8+) amine, Alkenyl (C12+) acid ester mixture.				
Alkenyl (C16-C20) succinic anhydride .....	11	.....	AAH.	
Alkyl acrylate-Vinyl pyridine copolymer in Toluene .....	32	.....	AAP.	
Alkyl amine (C17+) .....	7	.....	AKY.	
Alkylaryl phosphate mixtures (more than 40% Diphenyl tolyl phosphate, less than 0.02% ortho-isomers).	34	.....	ADP.	
Alkylated (C4-C9) hindered phenols* .....	21	3	AYO.	
Alkyl(C3-C4)benzenes .....	32	.....	AKC.	
<i>Including:</i>				
<i>Butylbenzenes.</i>				
<i>Cumene.</i>				
<i>Propylbenzenes.</i>				
Alkyl(C5-C8)benzenes .....	32	.....	AKD..	
<i>Including:</i>				

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
<i>Amylbenzenes.</i>				
<i>Heptylbenzenes.</i>				
<i>Hexylbenzenes.</i>				
<i>Octylbenzenes.</i>				
Alkyl(C9+)benzenes .....	32	.....	AKB.	
<i>Including:</i>				
<i>Decylbenzenes.</i>				
<i>Dodecylbenzenes.</i>				
<i>Nonylbenzenes.</i>				
<i>Tetradecylbenzenes.</i>				
<i>Tetrapropylbenzenes.</i>				
<i>Tridecylbenzenes.</i>				
<i>Undecylbenzenes.</i>				
Alkylbenzene, Alkylindane, Alkylindene mixture (each C12-C17)	32	.....	AIH.	
Alkyl benzene distillation bottoms *	0	1, 3	ABB.	
Alkylbenzene mixtures (containing at least 50% of Toluene) *	32	3	AZT.	
Alkyl (C11-C17) benzene sulfonic acid *	0	1, 3	ABN .....	ABS/ABQ.
Alkylbenzenesulfonic acid (less than 4%) .....	0	1, 2	ABQ .....	ABS/ABN.
Alkylbenzene sulfonic acid, sodium salt solution .....	33	.....	ABT.	
Alkyl (C12+) dimethylamine *	7	3	ADM.	
Alkyl dithiocarbamate (C19-C35) *	34	3	ADB.	
Alkyl dithiothiadiazole (C6-C24) .....	33	.....	ADT.	
Alkyl polyglucoside solution, see individual polyglucoside solution.	43	.....	AGD .....	AGL/AGM AGN/AGO/AGP.
Alkyl ester copolymer (C4-C20) .....	34	.....	AES .....	AEQ.
Alkyl (C8-C10)/(C12-C14):(40% or less/60% or more) polyglucoside solution (55% or less) *.	43	3	AGN .....	AGD/AGL AGM/AGO/AGP.
Alkyl (C8-C10)/(C12-C14):(50%/50%) polyglucoside solution (55% or less) *.	43	3	AGO .....	AGD/AGL/AGN/AGP.
Alkyl (C8-C10)/(C12-C14):(60% or more/40% or less) polyglucoside solution (55% or less) *.	43	3	AGP .....	AGD/AGL/AGM/AGN/AGO.
Alkyl(C7-C9) nitrates .....	34	2	AKN .....	ONE.
Alkyl (C4-C9) phenols .....	21	.....	AYI .....	BLT/BTP/NNP/OPH.
Alkyl(C7-C11) phenol poly(4-12)ethoxylate .....	40	.....	APN .....	NPE.
Alkyl (C8-C40) phenol sulfide .....	34	.....	AKS.	
<i>Alkyl phenol sulfide (C8-C40), see Alkyl (C8-C40) phenol sulfide</i>	34	.....	.....	AKS.
Alkyl(C8-C9) phenylamine in aromatic solvents .....	9	.....	ALP.	
Alkyl(C9-C15) phenyl propoxylate .....	40	.....	AXL.	
Alkyl (C8-C10) polyglucoside solution (65% or less) *	43	3	AGL .....	AGD/AGM/AGN/AGO/AGP.
Alkyl (C12-C14) polyglucoside solution (55% or less) *	43	3	AGM .....	AGD/AGL/AGN/AGO/AGP.
Alkyl (C12-C16) propoxyamine ethoxylate *	8	3	AXE .....	LPE.
Alkyl ester copolymer in mineral oil .....	34	.....	AEQ .....	AES.
<i>Alkyl phthalates, see individual phthalates</i> .....	34	.....	AYS.	
Alkyl(C10-C20), saturated and unsaturated phosphite .....	34	.....	AKL.	
Alkyl succinic anhydride .....	11	.....	AUA.	
Alkyl sulfonic acid ester of phenol .....	34	.....	AKH.	
Alkyl (C18+) toluenes *	32	3	AUS .....	AYL.
Alkyl toluene .....	32	.....	AYL .....	AUS.
Alkyl (C18-C28) toluenesulfonic acid *	0	1, 3	AUU.	
Alkyl (C18-C28) toluenesulfonic acid, Calcium salts, borated * .....	34	3	AUB.	
Alkyl (C18-C28) toluenesulfonic acid, Calcium salts, low overbase *.	33	3	AUL.	
Alkyl (C18-C28) toluenesulfonic acid, Calcium salts, high overbase *.	33	3	AUC.	
Allyl alcohol .....	15	2	ALA.	
Allyl chloride .....	15	.....	ALC.	
<i>Aluminum chloride, Hydrochloric acid solution, see "Aluminum chloride/Hydrogen chloride solution".</i>	0	1	AHS .....	AHG.
<i>Aluminum chloride/Hydrogen chloride solution *</i> .....	0	1,3	AHG .....	AHS.
Aluminum hydroxide, sodium hydroxide, sodium carbonate solution (40% or less) *.	43	3	AHN.	
Aluminum sulfate solution .....	43	2	ASX .....	ALM.
Amine C-6, morpholine process residue .....	9	.....	AOI.	
2-(2-Aminoethoxy)ethanol .....	8	.....	AEX.	
Aminoethyldiethanolamine/Aminoethylethanolamine solution .....	8	.....	ADY.	
Aminoethylethanolamine .....	8	.....	AEE.	
N-Aminoethylpiperazine .....	7	.....	AEP.	
2-Amino-2-hydroxymethyl-1,3-propanediol solution .....	43	.....	AHL.	
2-Amino-2-methyl-1-propanol .....	8	.....	APZ .....	APQ/APR.
Ammonia, anhydrous .....	6	.....	AMA.	
<i>Ammonia, aqueous (28% or less Ammonia), see Ammonium hydroxide.</i>	6	.....	.....	AMH.

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
Ammonium bisulfite solution (70% or less) .....	43	2	ABX .....	ASU.
Ammonium chloride solution (less than 25%)* .....	43	3	AIS .....	AMC.
Ammonium hydrogen phosphate solution .....	0	1	AMI.	
Ammonium hydroxide (28% or less Ammonia) .....	6		AMH.	
<i>Ammonium lignosulfonate solution, see also</i> Lignin liquor .....	43		ALG .....	LNL.
Ammonium nitrate solution (93% or less) .....	0	1	ANW .....	AMN/AND/ANR.
Ammonium nitrate solution (45% or less) .....	0	1	AND .....	AMN/ANR/ANW.
<i>Ammonium nitrate/Urea solution (containing Ammonia), see</i> <i>Urea/Ammonium nitrate solution (containing more than 2%</i> <i>Ammonia).</i>	6			UAS (ANU/UAT/UAV/UAV).
<i>Ammonium nitrate/Urea solution (containing less than 2% free</i> <i>Ammonia), see Urea/Ammonium nitrate solution (containing</i> <i>less than 2% free Ammonia).</i>	6			UAT (ANU/UAS/UAV/UAV).
<i>Ammonium nitrate/Urea solution (not containing Ammonia), see</i> <i>Urea/Ammonium nitrate solution (containing less than 1% Am-</i> <i>monia).</i>	6			UAU (ANU/UAS/UAT/UAV).
<i>Ammonium phosphate/Urea solution, see Urea/Ammonium</i> <i>phosphate solution.</i>	43			UAP (APP/URE).
Ammonium polyphosphate solution .....	43		AMO .....	
Ammonium sulfate solution .....	43		ASW .....	AME/AMS.
Ammonium sulfate solution (20% or less) .....	43		AME .....	AMS/ASW.
Ammonium sulfide solution (45% or less*) .....	5	3	ASS .....	ASF.
Ammonium thiocyanate/Ammonium thiosulfate solution .....	0	1	ACV .....	ACS.
Ammonium thiosulfate solution (60% or less*) .....	43	3	ATV .....	ATF.
Amyl acetate (all isomers*) .....	34	3	AEC .....	IAT/AML/AAS/AYA.
Amyl acid phosphate .....	34		AIA	
n*-Amyl alcohol .....	20	3	AAN .....	AAI/AAL/APM/ASE/IAA.
Amyl alcohol, primary* .....	20	3	APM .....	AAI/AAL/ANN/APM/IAA.
sec-Amyl alcohol* .....	20	3	ASE .....	AAI/AAL/ANN/APM/IAA.
tert-Amyl alcohol* .....	20	3	AAL .....	AAI/APM/ASE/IAA.
<i>Amylene, see Pentene (all isomers)</i> .....	30		AMW .....	PTX (AMX/AMZ/PTE).
<i>tert-Amylenes, see Pentene</i> .....	30		AMZ .....	PTX (AMW).
<i>tert-Amyl methyl ether</i> .....	41		AYE.	
<i>Amyl methyl ketone, see Methyl amyl ketone</i> .....	18		AMJ .....	MAK (AMK).
Aniline .....	9		ANL.	
Animal and Fish oils, n.o.s. ....	34		AFN.	
<i>Including:</i>				
<i>Cod liver oil.</i>				
<i>Lanolin.</i>				
<i>Neatsfoot oil.</i>				
<i>Pilchard oil.</i>				
<i>Sperm oil.</i>				
Animal and Fish acid oils and distillates, n.o.s. ....	34		AFA.	
<i>Including:</i>				
<i>Animal acid oil.</i>				
<i>Fish acid oil.</i>				
<i>Lard acid oil.</i>				
<i>Mixed acid oil.</i>				
<i>Mixed general acid oil.</i>				
<i>Mixed hard acid oil.</i>				
<i>Mixed soft acid oil.</i>				
Anthracene oil (Coal tar fraction), see Coal tar .....	33		AHO .....	COR.
Apple juice .....	43		APJ.	
Argon, liquefied .....	0	1	ARG.	
Aryl polyolefins (C11-C50) .....	32		AYF.	
Asphalt .....	33		ASP .....	ACU.
Asphalt blending stocks, roofers flux .....	33		ARF.	
Asphalt blending stocks, straight run residue .....	33		ASR.	
Asphalt emulsion .....	33		ASQ.	
Asphalt, Kerosene, and other components .....	33		AKO.	
Aviation alkylates (C8 paraffins and iso-paraffins BPT 95-120 °C*), .....	31	3	AVA .....	GAK/GAV.
Barium long-chain (C11-C50) alkaryl sulfonate .....	34		BCA.	
Barium long-chain alkyl(C8-C14)phenate sulfide .....	34		BCH.	
Behenyl alcohol .....	20		BHY.	
Benzene .....	32	2	BNZ .....	BHA/BHB/PYG.
Benzene and mixtures having 10% Benzene or more .....	32		BHB .....	BHA/BNZ/PYG.
Benzene hydrocarbon mixtures (containing Acetylenes) (having 10% Benzene or more).	32		BHA .....	BHB/BNZ/PYG.
Benzene sulfonyl chloride .....	0	1, 2	BSC.	
Benzene/Toluene/Xylene mixtures (having 10% Benzene or more).	32		BTX .....	BHB/BNZ/PYG/TOL/XLX/ XLM/XLO/XLP.

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
Benzenetricarboxylic acid, trioctyl ester .....	34	.....	BCE.	
Benzyl acetate .....	34	.....	BZE.	
Benzyl alcohol .....	21	.....	BAL.	
Benzyl chloride .....	36	.....	BCL.	
Bio-fuel blends of Diesel/gas oil and Alkanes (C10-C26), linear and branched with a flash point >60 °C (>25% but < 99% by volume) *.	33	3	BIF .....	BIG/BIH/BII/BIJ/BIK.
Bio-fuel blends of Diesel/gas oil and Alkanes (C10-C26), linear and branched with a flash point >60 °C (>25% but <99% by volume) *.	33	3	BIG .....	BIF/BIH/BII/BIJ/BIK.
Bio-fuel blends of Diesel/gas oil and FAME (>25% but <99% by volume) *.	34	3	BIH .....	BIF/BIG/BII/BIJ/BIK.
Bio-fuel blends of Diesel/gas oil and vegetable oil (>25% but <99% by volume) *.	34	3	BII .....	BIF/BIG/BIH/BIJ/BIK.
Bio-fuel blends of Gasoline and Ethyl alcohol (>25% but <99% by volume) *.	20	3	BIJ .....	BIF/BIG/BIH/BII/BIK.
Boronated Calcium sulfonate .....	34	.....	BCU.	
Brake fluid base mix: Poly(2-8)alkylene (C2-C3) glycols/ Polyalkylene (C2-C10) glycols monoalkyl (C1-C4) ethers and their borate esters *.	20	3	BFY.	
Brominated Epoxy Resin in Acetone .....	41	.....	BER.	
Bromochloromethane .....	36	.....	BCM.	
Butadiene (all isomers) .....	30	.....	BDI.	
Butadiene/Butylene mixtures (containing Acetylenes) .....	30	.....	BBM .....	BBX/BDI/BTN/IBL.
Butane (all isomers) .....	31	.....	BMX .....	IBT/BUT.
Butane/Propane mixture .....	31	.....	BUP .....	LPG
1,4-Butanediol, <i>see</i> Butylene glycol .....	20	.....	BDO .....	BUG.
2-Butanone, <i>see</i> Methyl ethyl ketone .....	18	.....	.....	MEK.
Butene, <i>see</i> Butylene .....	.....	.....	.....	BUT/IBL.
Butene oligomer .....	30	.....	BOL.	
Butyl acetate (all isomers) * .....	34	3	BAX .....	BCN/BTA/BYA/IBA.
Butyl acrylate (all isomers) * .....	14	3	BAR .....	BAI/BTC.
Butyl alcohol ( <i>iso</i> -, <i>n</i> -, <i>sec</i> -, <i>tert</i> -), <i>see</i> Butyl alcohol (all isomers) .....	20	2	.....	BAN/BAS/BAT/BAY/IAL.
Butyl alcohol (all isomers) * .....	20	2, 3	BAY .....	BAN/BAS/BAT/IAL.
Butylamine (all isomers) * .....	7	3	BTY .....	BAM/BTL/BUA/IAM.
Butylbenzene (all isomers) *, <i>see</i> Alkyl(C3-C4)benzenes .....	32	3	BBE .....	AKC.
Butyl benzyl phthalate .....	34	.....	BPH.	
Butyl butyrate (all isomers) * .....	34	3	BBA .....	BIB/BUB.
Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture * .....	14	3	DER .....	BMH/BMI/BMN/CEM.
Butylenes (all isomers) .....	30	.....	BTN .....	IBL.
n*-Butyl ether .....	41	.....	BTE.	
Butylene glycol .....	20	2	BUG .....	BDO.
1,2-Butylene oxide .....	16	.....	BTO.	
n-Butyl ether .....	41	3	BTE.	
n-Butyl formate .....	34	.....	BFN .....	BFI/BFO.
Butyl heptyl ketone .....	18	.....	BHK.	
Butyl methacrylate .....	14	.....	BMH .....	BMI/BMN.
Butyl methacrylate, Decyl methacrylate, Cetyl-Eicosyl methacrylate mixture, <i>see</i> Butyl/Decyl/Cetyl/Eicosyl methacrylate.	34	.....	.....	DER (BMH/BMI/BMN/CEM).
Butyl methyl ketone, <i>see</i> Methyl butyl ketone .....	18	.....	.....	MBJ (MBK/MIK).
n-Butyl propionate .....	34	.....	BPN.	
Butyl stearate .....	34	.....	BST.	
Butyl toluene .....	32	.....	BUE.	
Butyraldehyde (all isomers) * .....	19	3	BAE .....	BAD/BTR.
Butyric acid .....	4	.....	BRA .....	IBR.
gamma-Butyrolactone .....	0	1, 2	BLA.	
Calcium alkaryl sulfonate (C11-C50), <i>see</i> Calcium long-chain alkaryl sulfonate (C11-C50) *.	34	3	CAE .....	CAY.
Calcium alkyl(C9)phenol sulfide, polyolefin phosphorosulfide mixture.	34	.....	CPX.	
Calcium alkyl (C10-C28) salicylate * .....	34	3	CAJ.	
Calcium alkyl salicylate, <i>see</i> Calcium long-chain alkyl salicylate (C13+), Calcium long-chain alkyl (C18-C28) salicylate, or Calcium alkyl (C10-C28) salicylate.	34	.....	.....	CAJ/CAK/CAZ.
Calcium bromide solution, <i>see</i> Drilling brines .....	43	.....	CBI .....	DRS.
Calcium bromide/Zinc bromide solution, <i>see</i> Drilling brine (containing Zinc salts).	43	.....	.....	DZB.
Calcium carbonate slurry .....	34	.....	CSR.	
Calcium chloride solution .....	43	.....	CCS .....	CLC.
Calcium hydroxide slurry .....	5	.....	COH .....	CAH.
Calcium hypochlorite solution (15% or less) * .....	5	3	CHU .....	CHY/CHZ.
Calcium hypochlorite solution (more than 15% *) .....	5	3	CHZ .....	CHU/CHY.

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
<i>Calcium lignosulfonate solution, see also</i> Lignin liquor .....	43	.....	CLL .....	LNL.
Calcium long-chain alkaryl sulfonate (C11-C50) .....	34	.....	CAY.	
Calcium long-chain alkyl (C5-C10*) phenate .....	34	3	CAU .....	CAN/CAQ/CAV/CAW.
Calcium long-chain alkyl (C5-C20) phenate .....	34	.....	CAV .....	CAN/CAQ/CAU/CAW.
Calcium long-chain alkyl (C11-C40) phenate* .....	34	3	CAW .....	CAN/CAQ/CAU/CAV.
<i>Calcium long-chain alkyl (C8-C40) phenate, see</i> Calcium long-chain alkyl (C5-C10) phenate or Calcium long-chain alkyl (C11-C40) phenate.	34	.....	CAQ .....	CAU/CAV (CAN/CAW).
Calcium long-chain alkyl phenate sulfide (C8-C40) .....	34	.....	CPI.	
Calcium long-chain alkyl phenolic amine (C8-C40) .....	9	.....	CPQ.	
Calcium long-chain alkyl salicylate (C13+) .....	34	.....	CAK .....	CAJ/CAZ.
Calcium long-chain alkyl (C18-C28) salicylate* .....	34	3	CAJ.	
Calcium nitrate solutions (50% or less*) .....	34	3	CNU .....	CNT.
Calcium nitrate/Magnesium nitrate/Potassium chloride solution ..	34	.....	CLM .....	CNT/CNU/MGN/MGO/PCS/PCU/PSD.
Calcium salts of fatty acids .....	34	.....	CFF.	
Calcium stearate .....	34	.....	CSE.	
Calcium sulfonate/Calcium carbonate/Hydrocarbon solvent mixture.	33	.....	CSH.	
Camelina oil* .....	34	3	CEL.	
Camphor oil (light) .....	18	.....	CPO.	
<i>Canola oil, see</i> Oil, edible: Repeseed, (low erucic acid containing less than 4% free fatty acids).	34	.....	.....	ORO (ORP).
epsilon-Caprolactam (molten or aqueous solutions)* .....	22	3	CLU .....	CLS.
Caramel solution .....	43	.....	CML.	
Carbolic oil .....	21	.....	CBO.	
Carbon dioxide, <i>liquefied</i> .....	0	1	CDO .....	CDH/CDQ.
Carbon dioxide (high purity) .....	0	1	CDH .....	CDO/CDQ.
Carbon dioxide (reclaimed quality) .....	0	1	CDQ .....	CDH/CDO.
Carbon disulfide .....	38	.....	CBB.	
Carbon tetrachloride .....	36	2	CBT .....	CBU.
<i>Cashew nut shell oil (untreated), see</i> Oil, misc: Cashew nut shell (untreated).	4	.....	.....	OCN.
<i>Castor oil, see</i> Oil, edible: Castor .....	34	.....	.....	OCA (VEO).
Catoxid feedstock .....	36	2	CXF.	
Caustic potash solution .....	5	2	CPS.	
Caustic soda solution .....	5	2	CSS.	
Cesium formate solution* .....	34	3	CSM.	
<i>Cetyl alcohol, see</i> Alcohols (C13+) .....	20	.....	.....	ALY (ASY/AYL).
Cetyl/Eicosyl methacrylate mixture .....	14	1	CEM.	
Cetyl/Stearyl alcohol, <i>see</i> Alcohols (C13+) .....	20	.....	.....	ALY (ASY/AYL).
Chlorinated paraffins (C10-C13) .....	36	.....	CLH .....	CLG/CLJ/CLQ.
Chlorinated paraffins (C14-C17) (with 50% Chlorine or more, and less than 1% C13 or shorter chains*) .....	36	3	CLJ .....	CLG/CLH/CLQ.
Chlorinated paraffins (C14-C17) (with 52% Chlorine) .....	36	.....	CLQ .....	CLG/CLH/CLJ.
Chlorinated paraffins (C18+) with any level of chlorine .....	36	.....	CLG .....	CLH/CLJ.
Chlorine .....	0	1	CLX.	
Chloroacetic acid (80% or less*) .....	4	3	CHM .....	CHL/MCA.
Chlorobenzene .....	36	.....	CRB.	
Chlorodifluoromethane ( <i>monochlorodifluoromethane</i> ) .....	36	.....	MCF.	
2-Chloro-4-ethylamino-6-isopropylamino-5-triazine solution .....	0	1	CET.	
Chloroform .....	36	.....	CRF.	
Chlorohydrins (crude*) .....	17	3	CHD.	
4-Chloro-2-methylphenoxyacetic acid, dimethylamine salt solution.	9	.....	CDM.	
o-Chloronitrobenzene .....	42	.....	CNO .....	CNP.
1-(4-Chlorophenyl)-4,4-dimethyl pentan-3-one .....	18	2	CDP.	
2- or 3-Chloropropionic acid .....	4	.....	CPM .....	CLA/CLP.
Chlorosulfonic acid .....	0	1	CSA.	
m-Chlorotoluene* .....	36	3	CTM .....	CHI/CRN/CTO.
o-Chlorotoluene* .....	36	3	CTO .....	CHI/CRN/CTM.
p-Chlorotoluene* .....	36	3	CRN .....	CHI/CTM/CTO.
Chlorotoluenes (mixed isomers)* .....	36	3	CHI .....	CRN/CTM/CTO.
Choline chloride solution .....	20	.....	CCO.	
Citric acid (70% or less*) .....	4	3	CIS .....	CIT.
Clay slurry .....	43	.....	CLY.	
Coal slurry .....	43	.....	COG .....	COA.
Coal tar .....	33	.....	COR .....	OCT.
Coal tar crude bases .....	33	.....	CTB.	
<i>Coal tar distillate, see</i> Naphtha: Coal tar solvent .....	33	.....	CDL .....	NCT (CTU).
<i>Coal tar naphtha solvent, see</i> Naphtha: Coal tar solvent .....	33	.....	.....	NCT (CDL/CTU).
Coal tar pitch (molten*) .....	33	3	CTP.	

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
<i>Cocoa butter</i> , see Oil, edible: Cocoa butter	34			OCB (VEO).
<i>Coconut oil</i> , see Oil, edible: Coconut	34			OCC (VEO).
<i>Coconut oil, fatty acid</i> , see Oil, misc: Coconut fatty acid	34	2		CFA.
<i>Coconut oil, fatty acid methyl ester</i> , see Oil, misc: Coconut fatty acid methyl ester*	34	3		OCM.
Copper salt of long-chain (C17+) alkanolic acid	34		CUS	CFT.
Copper salt of long-chain (C3-C16) fatty acid	34		CFT	CUS.
<i>Corn oil</i> , see Oil, edible: Corn	34			OCO (VEO).
<i>Cotton seed oil</i> , see Oil, edible: Cotton seed	34			OCS (VEO).
Cottonseed oil, fatty acid	34		CFY.	
Creosote	21	2	CCW	CCT/CWD.
Creosote (coal tar*)	21	2, 3	CCT	CCW.
Creosote (wood tar*)	21	2, 3	CWD	CCT/CCW.
Cresols (all isomers*)	21	3	CRS	CFO/CFP/CRL/CRO/CSC/ CSO.
<i>Cresols with less than 5% Phenol</i> , see Cresols (all isomers)	21		CFO	CRS (CFP/CRL/CRO/ CSO).
<i>Cresols with 5% or more Phenol</i> , see Phenol	21		CFP	PHN (CFO/CRL/CRO/CRS/ CSO).
<i>Cresylate spent caustic</i> , see Cresylic acid, sodium salt solution	5		CSC	CYD.
Cresylic acid, dephenolized	21		CAD	CRY/CYN.
Cresylic acid, sodium salt solution	5		CYD	CSC.
Cresylic acid with 5% or more phenol	21		CYN	CAD/CRY.
Cresylic acid tar	21		CRX.	
Crotonaldehyde	19	2	CTA.	
<i>Crude isononylaldehyde</i> , see Isononylaldehyde (crude)	19			INC.
<i>Crude isopropanol</i> , see Isopropyl alcohol, crude	20			IPB (IPA/PAL).
<i>Crude piperazine</i> , see Piperazine, crude	7			PZC (PPZ/PIZ).
<i>Cumene</i> , see Propylbenzene (all isomers)	32		CUM	AKD (PB/Y/PBZ).
1,5,9-Cyclododecatriene	30		CYT.	
Cycloheptane	31		CYE.	
Cyclohexane	31		CHX.	
Cyclohexanol	20		CHN.	
Cyclohexanone	18	2	CCH.	
Cyclohexanone/Cyclohexanol mixture	18	2	CYX.	
Cyclohexyl acetate	34		CYC.	
Cyclohexylamine	7		CHA.	
1,3-Cyclopentadiene dimer (molten*)	30	3	CPD	DPT/DPV.
Cyclopentadiene/Styrene/Benzene mixture	30		CSB.	
Cyclopentane	31		CYP.	
Cyclopentene	30		CPE.	
p*-Cymene	32		CMP.	
Decahydronaphthalene	33		DHN.	
Decaldehyde	19		DAY	IDA/DAL.
<i>Decane (all isomers)</i> , see n-Alkanes (C10+) (all isomers)	31		DCC	ALV (ALJ).
Decanoic acid	4		DCO	NEA.
Decene	30		DCE.	
Decyl acetate	34		DYA.	
Decyl acrylate	14		DAT	IAI/DAR.
Decyl alcohol (all isomers*)	20	2, 3	DAX	ISA/DAN.
Decyl/Dodecyl/Tetradecyl alcohol mixture*	20	3	DYO	DAN/DAX/DDN/ISA.
<i>Decylbenzene</i> , see Alkyl(C9+) benzenes	32		DBZ	AKB.
Decyloxytetrahydrothiophene dioxide	0	1	DHT.	
Detergent alkylate	32		DKY	AKB/DBZ/DDB/TDB/TRB/ UDB.
<i>Dextrose solution</i> , see Glucose solution	43		DTS	GLU.
Diacetone alcohol	20	2	DAA.	
<i>Dialkyl(C10-C14) benzenes</i> , see Alkyl(C9+) benzenes	32		DAB	AKB.
Dialkyl(C8-C9) diphenylamines	9		DAQ.	
Dialkyl(C7-C13) phthalates	34		DAH.	
<i>Including:</i>				
<i>Di-(2-ethylhexyl) phthalate.</i>				
<i>Diheptyl phthalate.</i>				
<i>Dihexyl phthalate.</i>				
<i>Diisooctyl phthalate.</i>				
<i>Diisodecyl phthalate.</i>				
<i>Diisononyl phthalate.</i>				
<i>Dinonyl phthalate.</i>				
<i>Diocetyl phthalate.</i>				
<i>Ditridecyl phthalate.</i>				
<i>Diundecyl phthalate.</i>				

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
<i>Dialkyl (C9-C10) phthalates, see Dialkyl (C7-C13) phthalates</i> .....	34	.....	DLK .....	DLH (DAP/DHL/DHP/DID/ DIE/DIF/DIN/DIO/DIT/ DOP/DPA/DTP/DUP).
Dialkyl thiophosphates sodium salts solution * .....	34	3	DYH.	
Dibromomethane .....	36	.....	DBH.	
Dibutylamine .....	7	.....	DBA.	
<i>Dibutyl carbinol, see Nonyl alcohol (all isomers)</i> .....	20	.....	.....	NNS (DBC/NNI/NNN).
Dibutyl hydrogen phosphonate .....	34	.....	DHD.	
Dibutylphenols .....	21	.....	DBT .....	DBV/DBW.
2,6-Di-tert-butylphenol * .....	21	3	DBW .....	DBF/DBT/DBV.
Dibutyl phthalate .....	34	.....	DPA .....	DIT.
Dibutyl terephthalate * .....	34	3	DYE.	
Dichlorobenzene (all isomers *) .....	36	3	DBX .....	DBM/DBO/DBP.
3,4-Dichloro-1-butene .....	36	.....	DCD .....	DCB.
Dichlorodifluoromethane .....	36	.....	DCF.	
1,1-Dichloroethane .....	36	2	DCH.	
Dichloroethyl ether * .....	41	3	DYR .....	DEE.
1,6-Dichlorohexane .....	36	.....	DHX.	
2,2'-Dichloroisopropyl ether .....	41	.....	DCI.	
Dichloromethane .....	36	2	DCM.	
2,4-Dichlorophenol .....	21	.....	DCP.	
2,4-Dichlorophenoxyacetic acid/Diethanolamine salt solution .....	43	.....	DDE.	
2,4-Dichlorophenoxyacetic acid/Dimethylamine salt solution (70% or less) * .....	0	1, 2, 3	DDA .....	DAD/DSX.
2,4-Dichlorophenoxyacetic acid/Trisopropanolamine salt solution .....	43	2	DTI.	
1,1-Dichloropropane .....	36	.....	DPB .....	DPC/DPL/DPP/DPX.
1,2-Dichloropropane * .....	36	3	DPP .....	DPB/DPC/DPL/DPX.
1,3-Dichloropropane .....	36	.....	DPC .....	DPB/DPL/DPP/DPX.
Dichloropropene (all isomers) .....	15	.....	DCW .....	DPF/DPU.
1,3-Dichloropropene .....	15	.....	.....	DCW/DPF.
Dichloropropene/Dichloropropane mixtures .....	15	.....	DMX .....	DCW/DPB/DPC/DPL/DPP/ DPU/DPX.
2,2-Dichloropropionic acid .....	4	.....	DCN.	
<i>Dicyclopentadiene, see 1,3-Cyclopentadiene dimer (molten)</i> .....	30	.....	DPT .....	CPD (DPV).
Dicyclopentadiene, Resin Grade, 81-89% * .....	30	3	DPV .....	CPD/DPT.
Diethanolamine .....	8	.....	DEA.	
<i>Diethanolamine salt of 2,4-Dichlorophenoxyacetic acid solution, see 2,4-Dichlorophenoxyacetic acid, Diethanolamine salt solution.</i>	43	.....	DZZ .....	DDE.
Diethylamine .....	7	.....	DEN.	
Diethylaminoethanol .....	8	.....	DAE.	
2,6-Diethylaniline .....	9	.....	DMN .....	DIY.
Diethylbenzene .....	32	.....	DEB.	
Diethylene glycol .....	40	2	DEG.	
<i>Diethylene glycol butyl ether, see Poly(2-8) alkylene glycol monoalkyl(C1-C6) ether.</i>	40	.....	DME .....	PAG.
<i>Diethylene glycol butyl ether acetate, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate.</i>	34	.....	DEM .....	PAF.
Diethylene glycol dibutyl ether .....	40	.....	DIG.	
Diethylene glycol diethyl ether .....	40	.....	DGS.	
<i>Diethylene glycol ethyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether.</i>	40	.....	DGE .....	PAG.
<i>Diethylene glycol ethyl ether acetate, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetates.</i>	34	.....	DGA .....	PAF.
<i>Diethylene glycol n-hexyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether.</i>	40	.....	DHE .....	PAG.
<i>Diethylene glycol methyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether.</i>	40	.....	DGM .....	PAG.
<i>Diethylene glycol methyl ether acetate, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate.</i>	34	.....	DGR .....	PAF.
Diethylene glycol phenyl ether .....	40	.....	DGP.	
Diethylene glycol phthalate .....	34	.....	DGL.	
<i>Diethylene glycol propyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether.</i>	40	.....	DGO .....	PAG.
Diethylenetriamine .....	7	2	DET.	
Diethylenetriaminepentaacetic acid, pentasodium salt solution .....	43	.....	DYS.	
<i>Diethylethanolamine, see Diethylaminoethanol</i> .....	8	.....	.....	DAE.
Diethyl ether .....	8	.....	EET.	
<i>Diethyl hexanol, see Decyl alcohol (all isomers)</i> .....	20	.....	.....	DAX.
Di-(2-ethylhexyl) adipate .....	34	.....	DEH.	
Di-(2-ethylhexyl) phosphoric acid .....	1	.....	DEP.	
<i>Di-(2-ethylhexyl) phthalate, see Dialkyl (C7-C13) phthalate</i> .....	34	.....	DIE .....	DAH.

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
Di-(2-ethylhexyl) terephthalate	34		DHH.	
Diethyl phthalate	34		DPH.	
Diethyl sulfate	34		DSU.	
Diglycidyl ether of Bisphenol A	41		BDE.	
Diglycidyl ether of Bisphenol F	41		DGF.	
<i>Diheptyl phthalate, see</i> Dialkyl (C7-C13) phthalate	34		DHP	DAH.
Di-n-hexyl adipate	34		DHA.	
Dihexyl phthalate	34		DHL.	
1,4-Dihydro-9,10-dihydroxy anthracene, disodium salt solution	5		DDH.	
Diisobutylamine	7		DBU.	
<i>Diisobutyl carbinol, see</i> Nonyl alcohol (all isomers)	20		DBC	NNS.
Diisobutylene	30		DBL.	
Diisobutyl ketone	18		DIK.	
Diisobutyl phthalate	34		DIT	DPA.
<i>Diisodecyl phthalate, see</i> Dialkyl (C7-C13) phthalates	34		DID	DAH.
Diisononyl adipate	34		DNY.	
<i>Diisononyl phthalate, see</i> Dialkyl (C7-C13) phthalates	34	2	DIN	DAH.
<i>Diisooctyl phthalate, see</i> Dialkyl (C7-C13) phthalate	34		DIO	DAH/(DIE/DOP).
Diisopropanolamine	8		DIP.	
Diisopropylamine	7		DIA	DNA.
Diisopropylbenzene (all isomers)	32		DIX.	
Diisopropylnaphthalene	32		DII.	
N,N-Dimethylacetamide	10		DAC	DLS.
N,N-Dimethylacetamide solution (40% or less *)	10	3	DLS	DAL.
Dimethyl adipate	34		DLA.	
Dimethylamine	7		DMA	DMC/DMG/DMY.
Dimethylamine solution (45% or less *)	7	3	DMG	DMA/DMC/DMY.
Dimethylamine solution (greater than 45% but not greater than 55%)*.	7	3	DMY	DMA/DMC/DMG.
Dimethylamine solution (greater than 55% but not greater than 65%)*.	7	3	DMC	DMA/DMG/DMY.
<i>Dimethylamine salt of 4-Chloro-2-methylphenoxyacetic acid solution, see</i> 4-Chloro-2-methylphenoxyacetic acid, Dimethylamine salt solution.	9			CDM.
<i>Dimethylamine salt of 2,4-Dichlorophenoxyacetic acid solution, see</i> 2,4-Dichlorophenoxyacetic acid, Dimethylamine salt solution (70% or less).	9		DAD	DDA (DSX).
2,6-Dimethylaniline	9		DMM	DDL.
<i>Dimethylbenzene, see</i> Xylenes	32			XLX/XLM/XLO/XLP.
N,N-Dimethylcyclohexylamine	7		DXN.	
Dimethyl disulfide*	0	1, 2, 3	DSK.	
<i>Dimethyldodecylamine, see</i> N,N-Dimethyldodecylamine	7			DDY.
N,N-Dimethyldodecylamine	7		DDY.	
Dimethylethanolamine	8		DMB.	
Dimethyl ether	41		DIM.	
Dimethylformamide	10		DMF.	
Dimethyl glutarate	34		DGT.	
Dimethyl hydrogen phosphite	34	2	DPI.	
Dimethyl octanoic acid	4		DMO.	
Dimethyl phthalate	34		DTL.	
Dimethylpolysiloxane	34		DMP.	
2,2-Dimethylpropane-1,3-diol (molten or solution *)	20	3	DDI.	
Dimethyl succinate	34		DSE.	
Dinitrotoluene (molten*)	42	3	DNM	DNL/DNU/DTT.
<i>Dinonyl phthalate, see</i> Dialkyl (C7-C13) phthalates	34		DIF	DAH.
<i>Diocetyl phthalate, see</i> Dialkyl (C7-C13) phthalates	34		DOP	DAH (DIE/DIO).
1,4-Dioxane	41		DOX.	
Dipentene	30		DPN.	
Diphenyl	32		DIL.	
Diphenylamine (molten)	9		DAG	DAM.
Diphenylamine, reaction product with 2,2,4-trimethylpentene	9		DAK.	
Diphenylamines, alkylated	9		DAJ.	
Diphenyl/Diphenyl ether mixtures	33		DDO.	
Diphenyl ether	41		DPE.	
<i>Diphenyl ether/Biphenyl ether mixture, see</i> Diphenyl/Diphenyl ether mixture.	41			DDO.
Diphenyl ether/Diphenyl phenyl ether mixture	41		DOB.	
Diphenylmethane diisocyanate	12		DPM.	
Diphenylol propane-Epichlorohydrin resins	0	1	DPR.	
<i>Diphenyl oxide, see</i> Diphenyl ether	40			DPE.
Di-n-propylamine	7		DNA	DIA.
Dipropylene glycol	40		DPG.	



TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
<i>Dipropylene glycol butyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether.</i>	40	.....	DBG .....	PAG.
Dipropylene glycol dibenzoate .....	34	.....	DGY .....	
<i>Dipropylene glycol methyl ether, see Poly (2-8)alkylene glycol monoalkyl(C1-C6) ether.</i>	40	.....	DPY .....	PAG.
Distillates, flashed feed stocks .....	33	.....	DFD .....	
Distillates, straight run .....	33	.....	DSR .....	
Di-tert-butyl phenol .....	21	.....	DBF .....	DBT/DBV/DBW.
2,4-Di-tert-butyl phenol .....	21	.....	DBV .....	DBF/DBT/DBW.
2,6-Di-tert-butyl phenol .....	21	.....	DBW .....	DBF/DBT/DBV.
Dithiocarbamate ester (C7-C35) .....	34	.....	DHO .....	
Ditridecyl adipate .....	34	.....	DTY .....	
<i>Ditridecyl phthalate, see Dialkyl (C7-C13) phthalate</i> .....	34	.....	DTP .....	DAH.
<i>Diundecyl phthalate, see Dialkyl (C7-C13) phthalates</i> .....	34	.....	DUP .....	DAH.
<i>Dodecane (all isomers), see Alkanes (C10+) (all isomers)</i> .....	31	.....	DOF .....	ALV (ALJ/DOC).
tert-Dodecanethiol .....	0	1, 2	DDL .....	LRM.
Dodecene (all isomers*) .....	30	3	DOZ .....	DDC/DOD.
<i>Dodecanol (all isomers), see Dodecyl alcohol (all isomers)</i> .....	20	2	DDN .....	LAL.
2-Dodecenylnsuccinic acid, dipotassium salt solution .....	34	.....	DSP .....	
Dodecyl alcohol (all isomers) .....	20	.....	DDN .....	ASK/ASY/LAL.
Dodecylamine/Tetradecylamine mixture .....	7	.....	DTA .....	
<i>Dodecylbenzene, see Alkyl (C9+) benzenes</i> .....	32	.....	DDB .....	AKB.
Dodecyldimethylamine/Tetradecyldimethylamine mixture .....	7	.....	DOT .....	
Dodecyl diphenyl ether disulfonate solution .....	43	.....	DTA .....	
Dodecyl hydroxypropyl sulfide .....	0	1	DOH .....	
Dodecyl methacrylate .....	14	.....	DDM .....	
Dodecyl/Octadecyl methacrylate mixture .....	14	.....	DOM .....	DDM.
Dodecyl/Pentadecyl methacrylate mixture .....	14	.....	DDP .....	
Dodecyl phenol .....	21	.....	DOL .....	
Dodecyl xylene .....	32	.....	DXY .....	
Drilling brines (containing Calcium, Potassium or Sodium salts)	43	.....	DRL .....	DRB/DRS.
Drilling brines (containing Zinc salts) .....	43	.....	DZB .....	DRB.
Drilling brines, including: Calcium bromide solution, Calcium chloride solution and Sodium chloride solution* .....	43	3	.....	DRS/DRL.
Drilling mud (low toxicity) ( <i>if flammable or combustible</i> ) .....	33	.....	DRO .....	DRM/DRN/DRP.
Drilling mud (low toxicity) ( <i>if non-flammable or non-combustible</i> )	43	.....	DRP .....	DRM/DRN/DRO.
Epichlorohydrin .....	17	.....	EPC .....	
Epoxy resin .....	18	.....	EPN .....	
<i>ETBE, see Ethyl tert-butyl ether</i> .....	40	.....	.....	EBE.
Ethane .....	31	.....	ETH .....	
Ethanolamine .....	8	.....	MEA .....	
<i>2-Ethoxyethanol, see Ethylene glycol monoalkyl ethers</i> .....	40	.....	EEO .....	EGC (EGE).
2-Ethoxyethyl acetate .....	34	2	EEA .....	EGA.
Ethoxylated alkyloxy alkyl amine .....	8	.....	ELM .....	
<i>Ethoxylated alcohols, C11-C15, see the alcohol polyethoxylates</i>	40	.....	.....	AEA/AEB/AED/AET/APV/ APW/APX.
Ethoxylated long-chain (C16+) alkyloxyalkylamine .....	8	.....	ELA .....	
Ethoxylated tallow alkyl amine .....	7	.....	TAY .....	TAG/TAR.
Ethoxylated tallow amine (>95%)* .....	7	3	TAR .....	TAG/TAY.
Ethoxylated tallow alkyl amine, glycol mixture .....	7	.....	TAG .....	TAR/TAY.
<i>Ethoxy triglycol, see Poly (2-8) alkylene glycol monoalkyl (C1-C6) ether.</i>	40	.....	ETG .....	PAG (ETR/TGE).
Ethoxy triglycol (crude) .....	40	.....	ETR .....	
Ethyl acetate .....	34	2	ETA .....	
Ethyl acetoacetate .....	34	.....	EAA .....	
Ethyl acrylate .....	14	2	EAC .....	
Ethyl alcohol .....	20	2	EAL .....	
Ethylamine .....	7	2	EAM .....	EAN/EAO.
Ethylamine solution (72% or less*) .....	7	3	EAN .....	EAM/EAO.
Ethyl amyl ketone .....	18	.....	EAK .....	ELK.
Ethylbenzene .....	32	.....	ETB .....	
Ethyl butanol .....	20	.....	EBT .....	
N-Ethyl-butylamine .....	7	.....	EBA .....	
Ethyl tert-butyl ether .....	41	2	EBE .....	
Ethyl butyrate .....	34	.....	EBR .....	
Ethyl chloride .....	36	.....	ECL .....	
Ethyl cyclohexane .....	31	.....	ECY .....	
N-Ethylcyclohexylamine .....	7	.....	ECC .....	
2-Ethyl-2-(2,4-dichlorophenoxy) acetate .....	34	.....	EDY .....	
2-Ethyl-2-(2,4-dichlorophenoxy) propionate .....	34	.....	EDP .....	
S-Ethyl dipropylthiocarbamate* .....	34	3	ECB .....	
Ethylene .....	30	.....	ETL .....	

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
Ethylene carbonate	34		ECR.	
Ethylene chlorohydrin	20		ECH.	
Ethylene cyanohydrin	20	2	ETC.	
Ethylenediamine	7	2	EDA	EMX.
Ethylenediaminetetraacetic acid/tetrasodium salt solution	43		EDS.	
Ethylene dibromide	36		EDB.	
Ethylene dichloride	36	2	EDC.	
Ethylene glycol	20	2	EGL	EAG.
Ethylene glycol acetate	34		EGO.	
Ethylene glycol butyl ether, see Ethylene glycol monoalkyl ethers.	40		EGM	EGC.
Ethylene glycol tert-butyl ether, see Ethylene glycol monoalkyl ethers.	40		EGG	EGC.
Ethylene glycol butyl ether acetate	34		EMA.	
Ethylene glycol diacetate	34		EGY.	
Ethylene glycol dibutyl ether	40		EGB.	
Ethylene glycol ethyl ether, see Ethyl glycol monoalkyl ethers	40		EGE	EGC/EEO.
Ethylene glycol ethyl ether acetate, see 2-Ethoxyethyl acetate	34	2	EGA	EEA.
Ethylene glycol hexyl ether, see Ethylene glycol monoalkyl ethers.	40		EGH	EGC.
Ethylene glycol isobutyl ether, see Ethylene glycol monoalkyl ethers.	40			EGC (EGG/EGM).
Ethylene glycol isopropyl ether, see Ethylene glycol monoalkyl ethers.	40		EGI	EGN/EGP.
Ethylene glycol methyl butyl ether, see Ethylene glycol monoalkyl ethers.	40		EMB	EGC.
Ethylene glycol methyl ether, see Ethylene glycol monoalkyl ethers.	40		EME	EGC.
Ethylene glycol methyl ether acetate	34		EGT.	
Ethylene glycol monoalkyl ethers	40	2	EGC.	
Including:				
Ethylene glycol butyl ether.				
Ethylene glycol isobutyl ether.				
Ethylene glycol methyl butyl ether.				
Ethylene glycol tert-butyl ether.				
Ethylene glycol ethyl ether.				
Ethylene glycol hexyl ether.				
Ethylene glycol methyl ether.				
Ethylene glycol propyl ether.				
Ethylene glycol iso-propyl ether.				
Ethylene glycol phenyl ether	40		EPE.	
Ethylene glycol phenyl ether/Diethylene glycol phenyl ether mixture.	40		EDX.	
Ethylene glycol propyl ether, see Ethylene glycol monoalkyl ethers.	40		EGP	EGC/EGI/EGN.
Ethylene glycol iso-propyl ether, see Ethylene glycol monoalkyl ethers.	40		EGI	EGC/EGN/EGP.
Ethylene glycol n-propyl ether, see Ethylene glycol monoalkyl ethers.	40		EGN	EGC (EGI/EGP).
Ethylene oxide	0	1	EOX.	
Ethylene oxide/Propylene oxide mixture	16		EPF	EPM.
Ethylene oxide/Propylene oxide mixture with an Ethylene oxide content not more than 30% by mass*.	16	3	EPM	EPF.
Ethylene-Propylene copolymer (in liquid mixtures)	31		EPY.	
Ethylene-Vinyl acetate copolymer (emulsion)	43		ECV.	
Ethyl ether, see Diethyl ether	41			EET.
Ethyl-3-ethoxypropionate	34		EEP.	
2-Ethylhexaldehyde, see Octyl aldehydes	19		EHA	OAL (OLX).
2-Ethylhexanoic acid, see Octanoic acid	4		EHO	OAY (OAA).
2-Ethylhexanol, see Octanol	20		EHX	OCA (OTA).
2-Ethylhexyl acrylate	14		EAI.	
2-Ethylhexylamine	7		EHM.	
Ethyl hexyl phthalate	34		EHE.	
Ethyl hexyl tallate	34		EHT.	
2-Ethyl-2-(hydroxymethyl) propane-1,3-diol, (C8-C10) ester	34		EHD.	
Ethyl lactate	34		ELT.	
Ethylidene norbornene	30	2	ENB.	
Ethyl methacrylate	14		ETM.	
N-Ethylmethylallylamine	7		EML.	
Ethyl propionate	34		EPR.	
2-Ethyl-3-propylacrolein	19	2	EPA.	
Ethyl toluene	32		ETE.	

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
Fatty acids (saturated, C13+)	34		FAB	FAD.
<i>Fatty acids (saturated, C14+), see Fatty acids (saturated, C13+)</i>	34		FAD	FAB.
Fatty acid methyl esters*	4	3	FME.	
Fatty acids, (C8-C10)*	4	3	FDS.	
Fatty acids, (C12+)*	4	3	FDT	FAB/FAD/FAI/FDI.
Fatty acids, (C16+)*	4	3	FDI.	
Fatty acids, essentially linear (C6-C18) 2-ethylhexyl ester*	4	2, 3	FAE.	
Ferric chloride solution	1		FCS	FCL.
Ferric hydroxyethylethylenediaminetriacetic acid, trisodium salt solution.	43	2	FHX	STA.
Ferric nitrate/Nitric acid solution	3	2	FNN.	
<i>Fish oil, see Oil, edible: Fish</i>	34	2		OFS (AFN).
Fish solubles ( <i>water based fish meal extracts</i> )	43		FSO.	
Fluorosilicic acid (20-30%) in water solution*	1	3	FSK	FSJ/FSL/HFS.
Fluorosilicic acid (30% or less)	1		FSJ	FSK/FSL/HFS.
Formaldehyde (50% or more), Methanol mixtures	19	2	MTM.	
Formaldehyde solutions (37%–50%)	19	2	FMS	FMG/FMR.
Formaldehyde solutions (45% or less*)	19	2, 3	FMR	FMG/FMS.
Formamide	10		FAM.	
Formic acid	4	2	FMA	FMB.
Formic acid (85% or less)	19	2	FMB	FMA.
Formic acid (over 85%)*	4	2, 3	FMD.	
Formic acid mixture (containing up to 18% Propionic acid and up to 25% Sodium formate)*.	4	2, 3	FMC	FMA/FMB.
Fructose solution	43		FTS	FRT.
Fumaric adduct of Rosin, water dispersion	43		FAR.	
Furfural	19		FFA.	
Furfuryl alcohol	20	2	FAL.	
<i>Gas oil, cracked, see Oil, misc: Gas, cracked</i>	33			GOC.
Gasoline blending stock, alkylates	33		GAK.	
Gasoline blending stock, reformates	33		GRF.	
Gasolines:				
Automotive (containing <i>not over 4.23 grams lead per gal.</i> )	33		GAT.	
Aviation (containing <i>not over 4.86 grams lead per gal.</i> )	33		GAV	AVA.
Casinghead ( <i>natural</i> )	33		GCS.	
Polymer	33		GPL.	
Straight run	33		GSR.	
<i>Gasolines: Pyrolysis (containing Benzene), see Pyrolysis gasoline (containing Benzene).</i>	33		GPY	PYG.
Glucitol/Glycerol blend propoxylated (containing less than 10% amines)*.	40	3	GGA.	
Glucose solution	43		GLS	DTS.
Glutaraldehyde solutions (50% or less)	19		GTA.	
Glycerine	20	2	GCR.	
Glycerine (83%)/Dioxanedimethanol (17%) mixture	20		GDN	GDM.
<i>Glycerol, see Glycerine</i>	20			GCR.
Glycerol ethoxylated	40		GXA.	
Glycerol monooleate	20		GMO.	
Glycerol polyalkoxylate	40		GPA.	
Glycerol propoxylated*	40	3	GXP.	
Glycerol, propoxylated and ethoxylated*	40	3	GXE.	
Glycerol/Sucrose blend propoxylated and ethoxylated*	40	3	GSB.	
Glyceryl triacetate	34		GCT.	
<i>Glycidyl ester of tertiary carboxylic acid, see Glycidyl ester of C10 trialkyl acetic acid.</i>	34		GLT	GLU.
<i>Glycidyl ester of tridecyl acetic acid, see Glycidyl ester of C10 trialkyl acetic acid.</i>	34		GLT	GLU.
Glycidyl ester of C10 trialkyl acetic acid	34		GLU	GLT.
<i>Glycidyl ester of Versatic acid, see Glycidyl ester of C10 trialkyl acetic acid.</i>	34		GLT	GLU.
Glycine, sodium salt solution	7		GSS.	
Glycol mixture, crude	20		GMC.	
<i>Glycol diacetate, see Ethylene glycol diacetate</i>	34			EGY.
Glycolic acid solution (70% or less*)	4	3	GLC.	
<i>Glycol triacetate, see Glyceryl triacetate</i>	34			GCT.
Glyoxal solution (40% or less*)	19	3	GOS.	
Glyoxylic acid solution (50% or less*)	4	3	GAC.	
Glyphosate solution (not containing surfactant)	7		GIO	RUP.
<i>Groundnut oil, see Oil, edible: Groundnut</i>	34			OGN (VEO).
<i>Heptadecane (all isomers), see Alkanes (C10+) (all isomers)</i>	31			ALV (ALJ).
<i>Heptane (all isomers), see Alkanes (C6-C9)</i>	31		HMX	ALK(HPI/HPT).
n-Heptanoic acid	4		HEN	HEP.

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
Heptanol (all isomers*)	20	3	HTX	HTN.
Heptene (all isomers*)	30	3	HPX	THE.
Heptyl acetate	34		HPE.	
Heptylbenzenes, see Alkyl (C3-C4) benzenes	32			AKD.
Herbicide (C15-H22-NO2-C1), see Metolachlor	34			MCO.
Hexadecanol, see Alcohols (C13+)	20			ALY (ASY/AYL).
1-Hexadecylnaphthalene/1,4-bis(Hexadecyl)naphthalene mixture	32		HNH	HNI.
1-n-Hexadecylnaphthalene (90%)/1,4-di-n-(Hexadecyl)naphthalene (10%).	32		HNI	HNH.
Hexaethylene glycol, see Polyethylene glycol	20		HMG	PEG.
Hexamethylenediamine adipate solution	43		HAN	HAM.
Hexamethylenediamine adipate (50% in water)	43		HAM	HAN.
Hexamethylenediamine (molten*)	7	3	HME	HMD/HMC.
Hexamethylenediamine solution	7		HMC	HMD/HME.
Hexamethylene diisocyanate	12		HMS	HDI.
Hexamethylene glycol	20		HMG	HXG.
Hexamethyleneimine	7		HMI.	
Hexamethylenetetramine solutions	7		HTS	HMT.
1,6-Hexanediol, distillation overheads*	4	2, 3	HDO.	
Hexanoic acid	4		HXO.	
Hexanol	20		HXM	HEW/HEZ/HXN.
Hexene (all isomers*)	30	3	HEX	HXE/HXT/HXU/HXV/MPN/ MTN.
Hexyl acetate	34		HAE.	
Hexylbenzenes, see Alkyl (C3-C4) benzenes	32			AKD.
Hexylene glycol, see Hexamethylene glycol	20		HXG	HMG.
Hog grease, see Lard	34			LRD.
Hydrochloric acid	1		HCL.	
Hydrofluorosilicic acid (25% or less), see Fluorosilicic acid (30% or less).	1			FSJ(FSK/FSL/HFS).
Hydrogenated starch hydrolysate*	0	1, 3	HSH.	
bis(Hydrogenated tallow alkyl)methyl amines	7		HTA.	
Hydrogen peroxide solutions (over 8% but not over 60% by mass)*.	0	1,3	HPN	HPO/HPS.
Hydrogen peroxide solutions (over 60% but not over 70% by mass*).	0	1, 3	HPS	HPN/HPO.
alpha-Hydro-omega-hydroxytetradeca(oxytetramethylene)	40		HTO	PYS/PYT.
2-Hydroxyethyl acrylate	14	2	HAI.	
N-(Hydroxyethyl)ethylenediamine triacetic acid, trisodium salt solution.	43		HET.	
2-Hydroxy-4-(methylthio)butanoic acid	4		HBA.	
Hydroxy terminated polybutadiene, see Polybutadiene, hydroxy terminated.	31			PHT.
Illipe oil, see Oil, edible: Illipe	34			ILO (VEO).
Isoamyl alcohol*	20	3	IAA	AAI/AAL/AAN/APM/ASE.
Isobutyl alcohol*	20	2, 3	IAL	BAN/BAS/BAT/BAY.
Isobutyl formate*	34	3	BFI	BFN/BFO.
Isobutyl methacrylate*	14	3	BMI	BMH/BMN.
Isononylaldehyde (crude)	19		INC.	
Isophorone	18	2	IPH.	
Isophoronediamine	7		IPI.	
Isophorone diisocyanate	12		IPD.	
Isoprene (all isomers)	30		IPR.	
Isoprene (part refined)	30		IPS	IPR/ISC.
Isoprene concentrate (Shell)	30		ISC.	
Isopropanolamine*	8	3	MPA	IPF/PAX/PLA.
Isopropanolamine solution*	8	3	PAI	MPA/PAY/PLA/PRG.
Isopropyl acetate*	34	3	IAC	PAT.
Isopropyl alcohol*	20	2, 3	IPA	IPB/PAL.
Isopropylamine*	7	3	IPP	IPO/IPQ/PRA.
Isopropylamine (70% or less) solution*	7	3	IPQ	IPO/IPP/PRA.
Isopropylbenzenes, see Alkyl (C3-C4) benzenes	32			AKC(CUM/PBY/PBZ).
Isopropylcyclohexane*	31	3	IPX.	
Isopropyl ether*	41	3	IPE	PRL/PRN.
Jatropha oil, see Oil, misc: Jatropha	34			JTO.
Jet fuels:				
JP-4	33		JPF.	
JP-5	33		JPV.	
JP-8	33		JPE.	
Kaolin clay solution	43		KLC	KLS.
Kaolin slurry	43		KLS	KLC.
Kerosene	33		KRS.	

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
Kraft black liquor	5		KBL	KPL.
Kraft pulping liquors (free alkali content 3% or more) ( <i>Black, Green, or White</i> ).	5		KPL	KBL.
Lactic acid	0	1	LTA.	
Lactonitrile solution (80% or less*)	37	3	LNI.	
Lard	34		LRD	OLD.
Latex, ammonia (1% or less*)-inhibited	30	3	LTX.	
Latex: Carboxylated Styrene-Butadiene copolymer; Styrene-Butadiene rubber*.	43	3	LCC	LCB/LSB.
Latex, liquid synthetic	43		LLS	LCB/LCC/LSB.
Lauric acid	34		LRA.	
Lauric acid methyl ester/Myristic acid methyl ester mixture	34		LMM.	
<i>Lauryl polyglucose</i> , see Alkyl(C12-C14) polyglucoside solution (55% or less).	43			AGM/LAP.
<i>Lauryl polyglucose (50% or less)</i> , see Alkyl (C12-C14) polyglucoside solution (55% or less).	43		LAP	AMG.
Lecithin	34		LEC.	
Lignin liquor	43		LNL	ALG/CLL/LGA/LGM/LSL/ SHC/SHP/SHQ/SLP.
Ligninsulfonic acid, magnesium salt solution*	43	3	LGM	LGA/LNL/LSL.
<i>Ligninsulfonic acid, sodium salt solution</i> , see Lignin liquor or Sodium lignosulfonate solution.	43		LGA	LNL or SLG.
<i>d-Limonene</i> , see Dipentene	30			DPN.
Linear alkyl (C12-C16) propoxyamine ethoxylate	8		LPE.	
<i>Linseed oil</i> , see Oil, misc: Linseed	34			OLS.
<i>Liquefied Natural Gas</i> , see Methane	34		LNG	MTH.
Liquid chemical wastes*	0	1, 3	LCW.	
Long-chain alkaryl polyether (C11-C20)	41		LCP.	
Long-chain alkaryl sulfonic acid (C16-C60)	0	1	LCS.	
Long-chain alkyl amine	7		LAA.	
Long-chain alkylphenate/Phenol sulfide mixture	21		LPS.	
Long-chain alkyl (C13+) salicylic acid	4		LAS.	
L-Lysine solution (60% or less*)	43	3	LYS.	
Magnesium chloride solution	0	1, 2	MGL.	
Magnesium hydroxide slurry	5		MHS.	
Magnesium long-chain alkaryl sulfonate (C11-C50)	34		MAS	MSE.
Magnesium long-chain alkyl phenate sulfide (C8-C20)	34		MPS.	
Magnesium long-chain alkyl salicylate (C11+)	34		MLS.	
Magnesium nitrate solution (66.7%)	43		MGP	MGN/MGO.
<i>Magnesium nonyl phenol sulfide</i> , see Magnesium long-chain alkyl phenate sulfide (C8-C20).	34			MPS.
<i>Magnesium sulfonate</i> , see Magnesium long-chain alkaryl sulfonate (C11-C50).	34		MSE	MAS.
Maleic anhydride	11		MLA.	
Maltitol solution*	0	1, 3	MTI	
<i>Mango kernel oil</i> , see Oil, edible: Mango kernel	34			MKO (VEO).
2-Mercaptobenzothiazol (in liquid mixture)	5		BTM	SMD.
Mercaptobenzothiazol, sodium salt solution	5		SMB	MBT.
Mesityl oxide	18	2	MSO.	
Metam sodium solution	7		MSS	SMD.
Methacrylic acid	4		MAD.	
Methacrylic acid—Alkoxy poly(alkylene oxide) methacrylate copolymer, sodium salt aqueous solution (45% or less)*.	20	3	MAQ.	
Methacrylic resin in ethylene dichloride	14		MRD.	
Methacrylonitrile	15	2	MET.	
Methane	31		MTH	LNG.
3-Methoxy-1-butanol	20		MTX.	
3-Methoxybutyl acetate	34		MOA.	
N-(2-Methoxy-1-methyl ethyl)-2-ethyl-6-methyl chloroacetanilide, see Metolachlor.	34			MCO.
1-Methoxy-2-propyl acetate	34		MXP.	
<i>Methoxy triglycol</i> , see Poly (2-8) alkylene glycol monoalkyl (C1-C6) ether.	40		MTG	PAG (TGY).
Methyl acetate	34		MTT.	
Methyl acetoacetate	34		MAE.	
Methyl acetylene/Propadiene mixture	30		MAP.	
Methyl acrylate	14		MAM.	
Methyl alcohol	20	2	MAL.	
Methylamine solutions (42% or less*)	7	3	MSZ.	
Methylamyl acetate	34		MAC.	
Methylamyl alcohol	20		MAA	MIC.
Methyl amyl ketone	18		MAK.	

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
N-Methylaniline *	9	3	MAN.	
alpha-Methylbenzyl alcohol with Acetophenone (15% or less) *	20	3	MBA.	
Methyl bromide	36		MTB.	
Methyl butanol, <i>see the amyl alcohols</i>	20			AAI/AAL/AAN/APM/ASE/ IAA.
Methyl butenol	20		MBL.	
Methyl butenes, <i>see Pentene</i>	30			PTX (AMW/AMZ/PTE).
Methyl tert-butyl ether	41	2	MBE.	
Methyl butyl ketone	18	2	MBB	MBK/MIK.
Methyl 3-(3,5 di-tert-butyl-4-hydroxyphenyl) propionate crude melt.	20		MYP.	
Methylbutanol	20		MBY	MHB.
Methyl butyrate	34		MBU.	
Methyl chloride	36		MTC.	
Methylcyclohexane	31		MCY.	
Methylcyclohexanemethanol (crude)	20		MYH.	
Methylcyclopentadiene dimer	30		MCK.	
Methylcyclopentadienyl manganese tricarbonyl *	0	1, 3	MCT	MCW.
Methylcyclopentadienyl manganese tricarbonyl (60–70%) in mineral oil.	0	1	MCW	MCT.
Methyl diethanolamine	8		MDE	MAB.
Methylene bridged isobtylenated phenols	21		MBP.	
Methylene chloride, <i>see Dichloromethane</i>	21			DCM.
2-Methyl-6-ethyl aniline	9		MEN.	
Methyl ethyl ketone	18	2	MEK.	
2-Methyl-5-ethyl pyridine	9		MEP.	
Methyl formate	34		MFM.	
N-Methylglucamine solution (70% or less *)	43	3	MGC.	
2-Methylglutaronitrile	37		MLN	MGN.
2-Methylglutaronitrile with 2-Ethylsuccinonitrile (12% or less) *	37	3	MGE	MLN.
Methyl heptyl ketone	18		MHK.	
2-Methyl-2-hydroxy-3-butyne	20		MHB	MBY.
Methyl isoamyl ketone, <i>see Methyl amyl ketone</i>	18		MAJ	MAK.
Methyl isobutyl carbinol, <i>see Methyl amyl alcohol</i>	20		MIC	MAA.
Methyl isobutyl ketone	18		MIK	MBB/MBK.
Methyl methacrylate	14		MMM.	
3-Methyl-3-methoxybutanol	20		MXB.	
3-Methyl-3-methoxybutyl acetate	34		MMB.	
Methyl naphthalene (molten *)	32	3	MNA.	
Methylolurea	19		MUT.	
2-Methyl pentane, <i>see Hexane (all isomers)</i>	31			HXS (ALK/HXA/IHA/NHX).
2-Methyl-1,5-pentanediamine	7		MPM.	
2-Methyl-1-pentene, <i>see Hexene (all isomers)</i>	30		MPN	HEX (HXE/HXT/HXU/HXV/ MTN).
4-Methyl-1-pentene, <i>see Hexene (all isomers)</i>	30		MTN	HEX (HXE/HXT/HXU/HXV/ MPN).
Methyl tert-pentyl ether, <i>see tert-Amyl methyl ether</i>	41			AYE.
2-Methyl-1,3-propanediol	20		MDL.	
Methyl propyl ketone	18		MKE.	
Methylpyridine, <i>see the Methylpyridines</i>	9		MPQ	MPE/MPF/MPR.
2-Methylpyridine *	9	3	MPR	MPE/MPF/MPQ.
3-Methylpyridine *	9	3	MPE	MPF/MPQ/MPR.
4-Methylpyridine *	9	3	MPF	MPE/MPQ/MPR.
N-Methyl-2-pyrrolidone	9	2	MPY.	
Methyl salicylate	34		MES.	
alpha-Methylstyrene	30		MSR.	
3-(Methylthio)propionaldehyde	19		MTP.	
Metolachlor	34		MCO.	
Microsilica slurry	4		MOS.	
Milk	43		MLK.	
Mineral spirits	33		MNS.	
Mixed C4 Cargoes	30		MIX.	
Molasses	20		MOL	MON.
Molasses residue (from fermentation)	0	1	MON	MOL.
Molybdenum polysulfide long-chain alkyl dithiocarbamide complex *	0	1, 3	MOP.	
Monochlorodifluoromethane	36		MCF.	
Monoethanolamine, <i>see Ethanolamine</i>	8		MEA.	
Monoisopropanolamine, <i>see Isopropanolamine</i>	8			MPA (PLA/PLX).
Monoethylamine, <i>see Methylamine</i>	7			EAM (EAN/EAO).
Morpholine	7	2	MPL.	
Motor fuel anti-knock compound (containing lead alkyls)	0	1	MFA.	

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
<i>MTBE</i> , see Methyl tert-butyl ether	41			MBE.
Myrcene	30		MRE.	
Naphtha:				
Aromatic	33		NAR.	
Coal tar solvent	33		NCT.	
Heavy	33		NAG.	
Paraffinic	33		NPF.	
Petroleum	33		PTN.	
Solvent	33		NSV.	
Stoddard solvent	33		NSS.	
Varnish Makers' and Painters'	33		NVM.	
Naphthalene (molten *)	32	3	NTM.	
Naphthalene sulfonic acid-Formaldehyde copolymer, sodium salt solution.	0	1	NFS.	
Naphthalene sulfonic acid, sodium salt solution	34		NSB	NSA.
Naphthenic acid	4		NTI.	
Naphthenic acid, sodium salt solution	43		NTS.	
Neodecanoic acid	4		NEA	DCO/NAT.
Nitrating acid (mixture of Sulfuric and Nitric acids)	0	1	NIA.	
Nitric acid (70% and over) *	3	2, 3	NCE	NAC/NCD.
Nitric acid (less than 70%)	3	2	NCD	NAC/NCE.
Nitriiotriacetic acid, trisodium salt solution *	34	3	NCA.	
Nitrobenzene	42		NTB.	
<i>o</i> -Nitrochlorobenzene, see <i>o</i> -Chloronitrobenzene	42			CNO (CNP).
Nitroethane	42		NTE.	
Nitroethane(80%)/Nitropropane (20%) *	42	2, 3	NNL	NNM/NNO/NPM/NPN/NPP/ NTE.
Nitroethane/1-Nitropropane (each 15% or more) mixture	42	2	NNO	NNL/NNM/NPM/NPN/NPP/ NTE.
Nitrogen	0	1	NXX.	
Nitrophenol (mixed isomers)	42		NPX	NIP/NPH/NPX.
<i>o</i> -Nitrophenol (molten)	0	1, 2	NTP	NIP/NPH/NPX.
1-or 2-Nitropropane	42		NPM	NPN/NPP.
Nitropropane (60%)/Nitroethane (40%) mixture	42		NNM	NNL/NNO/NPM/NPN/NPP/ NTE.
<i>o</i> - or <i>p</i> -Nitrotoluenes *	42	3	NIT	NIE/NTR/NTT.
<i>Nonane</i> (all isomers), see Alkanes (C6-C9)	31		NAX	ALK (NAN).
Nonanoic acid (all isomers)	4		NNA	NAI/NIN.
Nonanoic/Tridecanoic acid mixture	4		NAT	NAI/NIN/NA.
<i>Non-edible industrial grade palm oil</i> , see Oil, misc: Palm, non-edible industrial grade.	34			OPB.
Nonene (all isomers)	30		NOO	NNE/NON/OAM/OFX/OFY.
Nonyl acetate	34		NAE.	
Non-noxious Liquid Substance, (12) n.o.s. Cat OS	0	1	NOL.	
Nonyl alcohol (all isomers)	20	2	NNS	ALR/DBC/NNI/NNN.
<i>Nonylbenzene</i> , see Alkyl(C9+)benzenes	32			AKB.
Nonyl methacrylate monomer	14		NMA.	
Nonyl phenol	21		NNP.	
Nonylphenol (48–62%)/Phenol (42–48%)/Dinonylphenol (1–10%) mixture.	21		NYL.	
<i>Nonyl phenol poly(4+)ethoxylate</i> , see Alkyl (C7-C11) phenol poly (4–12) ethoxylate.	40		NPE	APN.
<i>Nonyl phenol sulfide (90% or less) solution</i> , see Alkyl phenol sulfide (C8-C40).	34			AKS (NPS).
Noxious Liquid Substance, n.o.s. (NLS')	0	1	.	
<i>1-Octadecanol</i> , see Stearyl alcohol	20			SYL (ALY/ASY).
<i>1-Octadecene</i> , see the olefin or alpha-olefin entries	30			OAM/OFZ.
Octadecenoamide solution	10		ODD.	
<i>Octadecanol</i> , see Alcohols (C13+)	20			ALY (AYL/ASY/OYL).
Octamethylcyclotetrasiloxane *	34	3	OSA.	
<i>Octane</i> (all isomers), see Alkanes (C6-C9)	31		OAX	ALK (IOO/OAN).
Octanoic acid (all isomers)	4		OAY	EHO/OAA.
Octanol (all isomers)	20	2	OCX	EHX/OPA/OTA.
Octene (all isomers)	30	2	OTX	OAM/OFX/OFY/OFW/OTE.
<i>n</i> -Octyl acetate	34		OAF	OAE.
<i>Octyl alcohol</i> , see Octanol (all isomers)	20	2		OCX (EHX/IOA/OTA).
Octyl aldehydes	19		OAL	EHA/IOC//OLX.
<i>Octylbenzenes</i> , see Alkyl (C3-C4) benzenes	32			AKD.
Octyl decyl adipate	34		ODA.	
<i>n</i> -Octyl Mercaptan	34		OME.	
<i>Octyl nitrates</i> (all isomers), see Alkyl(C7-C9) nitrates	34	2	ONE	AKN.
Octyl phenol	21		OPH.	

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
<i>Octyl phthalate, see</i> Dialkyl (C7-C13) phthalates .....	34	.....	.....	DAH (DIE/DIO/DLK/DOP).
Oil, edible:				
Beechnut .....	34	.....	OBN .....	VEO.
Castor .....	34	.....	OCA .....	VEO.
Cocoa butter .....	34	.....	OCB .....	VEO.
Coconut .....	34	2	OCC .....	VEO.
Cod liver .....	34	.....	OCL .....	AFN.
Corn .....	34	.....	OCO .....	VEO.
Cotton seed .....	34	.....	OCS .....	VEO.
Fish .....	34	2	OFS .....	AFN.
Groundnut .....	34	.....	OGN .....	VEO.
Hazelnut .....	34	.....	OHN .....	VEO.
Illipe .....	34	.....	ILO .....	VEO.
Lard .....	34	.....	OLD .....	AFN.
<i>Maize, see</i> Oil, edible: Corn .....	34	.....	.....	OCO (VEO).
Mango kernel* .....	34	3	MKO .....	.....
Nutmeg butter .....	34	.....	ONB .....	VEO.
Olive .....	34	.....	OOL .....	VEO.
Palm .....	34	2	OPM .....	VEO.
Palm kernel .....	34	.....	OPO .....	VEO.
Palm kernel olein .....	34	.....	PKO .....	VEO.
Palm kernel stearin .....	34	.....	PKS .....	VEO.
Palm mid fraction .....	34	.....	PFM .....	VEO.
Palm olein .....	34	.....	PON .....	VEO.
Palm stearin .....	34	.....	PMS .....	VEO.
Peanut .....	34	.....	OPN .....	VEO.
Poppy .....	34	.....	OPY .....	VEO.
Poppy seed .....	34	.....	OPS .....	VEO.
Raisin seed .....	34	.....	ORA .....	VEO.
Rapeseed (low erucic acid containing less than 4% free fatty acids) .....	34	.....	ORO .....	ORP/VEO.
Rice bran .....	34	.....	ORB .....	VEO.
Safflower .....	34	.....	OSF .....	VEO.
Salad .....	34	.....	OSL .....	VEO.
Sesame .....	34	.....	OSS .....	VEO.
Shea butter .....	34	.....	OSH .....	VEO.
Soya bean .....	34	.....	OSB .....	VEO.
<i>Sunflower, see</i> Oil, edible Sunflower seed .....	34	.....	.....	OSN (VEO).
Sunflower seed .....	34	.....	OSN .....	VEO.
Tucum .....	34	.....	OTC .....	VEO.
Vegetable .....	34	.....	OVG .....	VEO.
Walnut .....	34	.....	OWN .....	VEO.
Oil, fuel:				
No. 1 .....	33	.....	OON.	
No. 1-D .....	33	.....	OOD.	
No. 2 .....	33	.....	OTW.	
No. 2-D .....	33	.....	OTD.	
No. 4 .....	33	.....	OFR.	
No. 5 .....	33	.....	OFV.	
No. 6 .....	33	.....	OSX.	
Oil, misc:				
Acid mixture from soybean, corn (maize) and sunflower oil refining .....	34	.....	AOM.	
Aliphatic .....	33	.....	OML.	
Animal .....	34	.....	OMA .....	AFN.
Aromatic .....	33	.....	OMR.	
Camelina .....	34	.....	OCI.	
Cashew nut shell (untreated) .....	4	.....	OCN.	
Clarified .....	33	.....	OCF.	
Coal .....	33	.....	OMC.	
Coconut fatty acid .....	34	2	CFA.	
Coconut oil, fatty acid methyl ester .....	34	.....	OCM.	
Cotton seed oil, fatty acid .....	34	.....	CFY.	
Crude .....	33	.....	OFA.	
Diesel .....	33	.....	ODS.	
Disulfide .....	0	1	ODI.	
Gas, cracked .....	33	.....	GOC.	
Gas, high pour .....	33	.....	OGP.	
Gas, low pour .....	33	.....	OGL.	
Gas, low sulfur .....	33	.....	OGS.	
Heartcut distillate .....	33	.....	OHD.	
Jatropha .....	34	.....	JTO.	



TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
Lanolin .....	34	.....	OLL .....	AFN.
Linseed .....	33	.....	OLS.	
Lubricating .....	33	.....	OLB.	
Mineral .....	33	.....	OMN.	
Mineral seal .....	33	.....	OMS.	
Motor .....	33	.....	OMT.	
Neatsfoot .....	33	.....	ONF .....	AFN.
Oiticica .....	34	.....	OOI.	
Palm acid .....	34	.....	PLM.	
Palm fatty acid distillate .....	34	.....	PFD.	
Palm oil fatty acid methyl ester .....	34	.....	OPE.	
Palm kernel acid .....	34	.....	OPK.	
Palm kernel fatty acid distillate .....	34	.....	PNG.	
Palm, non-edible industrial grade .....	34	.....	OPB.	
Penetrating .....	33	.....	OPT.	
Perilla .....	34	.....	OPR.	
Pilchard .....	34	.....	OPL .....	AFN.
Pine .....	33	.....	OPI .....	PNL.
Rape seed fatty acid methyl esters * .....	34	3	ORP.	
Residual .....	33	.....	ORL.	
Resin, distilled .....	34	.....	ORR.	
Road .....	33	.....	ORD.	
Rosin .....	33	.....	ORN.	
Seal .....	34	.....	OSE.	
Soapstock .....	34	.....	OIS.	
Soyabean (epoxidized) .....	34	.....	OSC.	
Soyabean fatty acid methyl ester .....	34	.....	.....	OST.
Spindle .....	33	.....	OSD.	
Tall .....	34	.....	OTL .....	OTI/OTJ.
Tall, crude .....	34	2	OTI .....	OTJ/OTL.
Tall, distilled .....	34	2	OTJ .....	OTI/OTL.
Tall, fatty acid .....	34	2	OTT.	
Tall fatty acid (resin acids less than 20%) .....	34	2	OTK .....	OTT.
Tall pitch .....	34	.....	OTP.	
Transformer .....	33	.....	OTF.	
Tung .....	34	.....	OTG.	
Turbine .....	33	.....	OTB.	
Vacuum gas oil .....	32	.....	OVC.	
<i>Oleamide solution, see</i> Octadecenoamide solution .....	10	.....	.....	ODD.
Olefin-Alkyl ester copolymer (molecular weight 2000+) .....	34	.....	OCP.	
Olefin mixture (C7-C9) C8 rich, stabilized * .....	30	3	OFC .....	OFW/OFY/OFX.
Olefin mixtures (C5-C7) * .....	30	3	OFX .....	OAM/OFZ/OFW/OFX/OFZ.
Olefin mixtures (C5-C15) * .....	30	3	OFY .....	OAM/OFZ/OFW/OFX/OFZ.
Olefins (C13+, all isomers) .....	30	.....	OFZ .....	OAM/OFW.
alpha-Olefins (C6-C18) mixtures .....	30	.....	OAM .....	OFZ/OFW/OFX/OFY/OFZ.
Oleic acid .....	34	.....	OLA.	
Oleum .....	0	1, 2	OLM .....	SAC/SFX.
<i>Oleyl alcohol, see</i> Alcohols (C13+) .....	20	.....	OYL .....	ALY (ASY).
Oleylamine .....	7	.....	OLY.	
<i>Olive oil, see</i> Oil, edible: Olive .....	34	.....	.....	OOL (VEO).
Orange juice (concentrated) * .....	0	1, 3	OJC .....	OJN.
Orange juice (not concentrated) * .....	0	1, 3	OJN .....	OJC.
Organomolybdenum amide .....	10	.....	OGA.	
<i>ORIMULSION, see</i> Asphalt emulsion .....	33	.....	.....	ASQ.
Oxyalkylated alkyl phenol formaldehyde .....	33	.....	OPF.	
Oxygenated aliphatic hydrocarbon mixture * .....	0	1, 3	OAH.	
<i>Palm acid oil, see</i> Oil, misc: Palm acid * .....	34	3	.....	PLM.
<i>Palm fatty acid distillate, see</i> Oil, misc: Palm fatty acid distillate * .....	34	3	.....	PFD.
<i>Palm kernel acid oil, see</i> Oil, misc: Palm kernel acid .....	34	.....	.....	PNO.
<i>Palm kernel acid oil, methyl ester, see</i> Oil, misc: Palm kernel acid, methyl ester. .....	34	.....	.....	PNF.
<i>Palm kernel oil fatty acid distillate, see</i> Oil, misc: Palm kernel fatty acid distillate. .....	34	.....	.....	PNG.
<i>Palm kernel oil, see</i> Oil, edible: Palm kernel .....	34	.....	.....	OPO (VEO).
<i>Palm kernel olein, see</i> Oil, edible: Palm kernel olein * .....	34	3	.....	PKO (VEO).
<i>Palm kernel stearin, see</i> Oil, edible: Palm kernel stearin * .....	34	3	.....	PKS (VEO).
<i>Palm mid fraction, see</i> Oil, edible: Palm mid fraction * .....	34	3	.....	PFM (VEO).
<i>Palm oil, see</i> Oil, edible: Palm * .....	34	3	.....	OPM (VEO).
<i>Palm oil fatty acid methyl ester, see</i> Oil, misc: Palm fatty acid methyl ester * .....	34	3	.....	OPE.
<i>Palm olein, see</i> Oil, edible: Palm Olein * .....	34	3	.....	PON (VEO).
<i>Palm stearin, see</i> Oil, edible: Palm stearin .....	34	.....	.....	PMS (VEO).

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
Parachlorobenzotrifluoride .....	32	.....	PBF .....	
<i>n</i> -Paraffins (C10-C20), see <i>n</i> -Alkanes (C10+) .....	31	.....	PFN .....	ALJ.
Paraffin wax, see Waxes: Paraffin * .....	31	3	.....	WPF.
Paraldehyde .....	19	.....	PDH.	
Paraldehyde-Ammonia reaction product .....	9	.....	PRB.	
Pentachloroethane .....	36	.....	PCE.	
<i>Pentadecanol</i> , see Alcohols (C13+) .....	20	.....	PDC .....	ALY.
1,3-Pentadiene .....	30	.....	PDE .....	PDN.
1,3-Pentadiene (greater than 50%), Cyclopentene and isomers, mixtures * .....	30	3	PMM.	
<i>Pentaethylene glycol</i> , see Polyethylene glycols .....	20	.....	.....	PEG.
<i>Pentaethylene glycol methyl ether</i> , see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether. ....	40	.....	.....	PAG.
Pentaethylenhexamine .....	7	.....	PEN .....	
Pentaethylenhexamine/Tetraethylenepentamine mixture .....	7	.....	PEP.	
Pentane (all isomers) .....	31	.....	PTY .....	IPT/PTA.
Pentanoic acid .....	4	.....	POC.	
<i>n</i> -Pentanoic acid (64%)/2-Methyl butyric acid (36%) mixture .....	4	.....	POJ .....	POC.
<i>Pentasodium salt of Diethylenetriamine pentaacetic acid solution</i> , see Diethylenetriamine pentaacetic acid, pentasodium salt solution. ....	43	.....	.....	DYS.
Pentene (all isomers) .....	30	.....	PTX .....	PTE.
<i>n</i> -Pentyl propionate .....	34	.....	PPE.	
Perchloroethylene .....	36	2	PER .....	TTE.
Petrolatum .....	33	.....	PTL.	
Phenol .....	21	2	PHN .....	PNS.
Phenol solutions (2% or less) .....	43	.....	PNS .....	PHN.
1-Phenyl-1-xylyl ethane .....	32	.....	PXE.	
Phosphate esters .....	34	.....	PZE.	
Phosphate esters, alkyl (C12-C14) amine .....	7	.....	PEA.	
Phosphoric acid .....	1	.....	PAC.	
Phosphorus, yellow or white .....	0	1	PPW .....	PPB/PPR.
Phosphosulfurized bicycle terpene .....	0	1	PBT.	
Phthalate based polyester polyol .....	0	1, 2	PBE.	
Phthalic anhydride (molten) .....	11	.....	PAN.	
alpha-Pinene .....	30	.....	PIO .....	PIB/PIN.
beta-Pinene .....	30	.....	PIP .....	PIN/PIO.
<i>Pine oil</i> , see Oil, misc: Pine .....	33	.....	PNL .....	OPI.
Piperazine (crude) .....	34	.....	PZC .....	PPZ/PIZ.
Piperazine (70% or less) .....	30	.....	PIZ .....	PPB/PPZ.
Piperylene concentrate .....	30	.....	PIC .....	PDE/PDN.
Polyacrylic acid solution (40% or less) .....	43	.....	PYA.	
Polyalkenyl succinic anhydride amine .....	7	.....	PSN.	
Polyalkyl acrylate .....	14	.....	PAY.	
Polyalkyl (C18-C22) acrylate in Xylene .....	14	.....	PIX.	
Polyalkyl alkenamine succinimide, molybdenum oxysulfide .....	7	.....	PSO.	
Polyalkylene glycols/Polyalkylene glycol monoalkyl ether mixtures. ....	40	.....	PPX.	
<i>Polyalkylene glycol butyl ether</i> , see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether. ....	40	.....	PGB .....	PAG.
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether .....	40	.....	PAG.	
Including:				
<i>Diethylene glycol butyl ether.</i>				
<i>Diethylene glycol ethyl ether.</i>				
<i>Diethylene glycol n-hexyl ether.</i>				
<i>Diethylene glycol methyl ether.</i>				
<i>Diethylene glycol propyl ether.</i>				
<i>Dipropylene glycol butyl ether.</i>				
<i>Dipropylene glycol methyl ether.</i>				
<i>Polyalkylene glycol butyl ether.</i>				
<i>Polyethylene glycol monoalkyl ether.</i>				
<i>Polypropylene glycol methyl ether.</i>				
<i>Triethylene glycol butyl ether.</i>				
<i>Triethylene glycol ethyl ether.</i>				
<i>Triethylene glycol methyl ether.</i>				
<i>Tripropylene glycol methyl ether.</i>				
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate .....	34	.....	PAF.	
Including:				
<i>Diethylene glycol butyl ether acetate.</i>				
<i>Diethylene glycol ethyl ether acetate.</i>				
<i>Diethylene glycol methyl ether acetate.</i>				

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
Polyalkylene glycols/Polyalkylene glycol monoalkyl ethers mixtures.	40	.....	PPX.	
Polyalkylene oxide polyol .....	20	.....	PAO.	
Polyalkyl (C10-C20) methacrylate .....	14	.....	PMT .....	PYY.
Polyalkyl methacrylate in mineral oil .....	14	.....	PYY .....	PMT.
Polyalkyl(C10-C18) methacrylate/Ethylene-Propylene copolymer mixture.	14	.....	PEM.	
Polyalpha olefins .....	31	.....	PYO.	
Polyaluminum chloride solution .....	1	.....	PLS.	
Polybutadiene, hydroxyl terminated .....	20	.....	PHT.	
Polybutene .....	33	.....	PLB.	
Polybutenyl succinimide .....	10	.....	PBS.	
<i>Polycarboxylic ester (C9+), see</i> Ditridecyl adipate .....	34	.....	.....	DTY.
Poly(2+)cyclic aromatics .....	32	.....	PCA.	
<i>Polydimethylsiloxane, see</i> Dimethylpolysiloxane .....	34	.....	.....	DMP.
Polyether, borated .....	41	.....	PED.	
Polyether (molecular weight 1350+) .....	41	.....	PYR.	
Polyether polyols .....	41	.....	PEO.	
Polyethylene glycol .....	40	.....	PEG.	
Polyethylene glycol dimethyl ether .....	40	.....	PEF.	
Poly (ethylene glycol) methylbutenyl ether (MW > 1000) .....	40	.....	PBN.	
<i>Polyethylene glycol monoalkyl ether, see</i> Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether.	40	.....	PEE .....	PAG.
Polyethylene polyamines .....	7	2	PEB .....	PEY.
Polyethylene polyamines (more than 50% C5-C20 Paraffin oil) *	7	2,3	PEY .....	PEB.
Polyferric sulfate solution .....	34	.....	PSS.	
Polyglycerine/Sodium salts solution (containing less than 3% Sodium hydroxide).	20	2	PGT .....	PGS.
Polyglycerol .....	20	.....	PGL.	
Poly(iminoethylene)-graft-N-poly(ethyleneoxy) solution (90% or less) *.	7	3	PIG .....	PIM.
Polyisobutenamine in aliphatic (C10-C14) solvent .....	7	.....	PIB .....	PIA.
Polyisobutenyl anhydride adduct .....	11	.....	PBA.	
Polyisobutenyl succinimide .....	10	.....	PIS.	
Poly(4+)isobutylene .....	30	.....	PIL.	
Polyisobutylene succinic anhydride .....	11	.....	PYS.	
Polymerized esters .....	34	.....	PYM.	
Polymethylene polyphenyl isocyanate .....	12	.....	PPI.	
Polyolefin (molecular weight 300+) .....	31	.....	PMW .....	PLF.
Polyolefin amide alkeneamine (C17+) .....	33	.....	POH .....	POD.
<i>Polyolefin amide alkeneamine (C28+), see</i> Polyolefin amide alkenamine (C17+).	33	.....	POD .....	POH.
Polyolefin amide alkeneamine borate (C28-C250) .....	34	.....	PAB.	
Polyolefin amide alkeneamine in mineral oil .....	33	.....	PLK.	
Polyolefin amide alkeneamine/Molybdenum oxysulfide mixture ...	7	.....	PMO.	
Polyolefin amide alkeneamine polyol .....	20	.....	PAP.	
Polyolefinamine (C28-C250) .....	33	.....	POM.	
Polyolefinamine in alkyl(C2-C4) benzenes .....	32	.....	POF .....	POR.
Polyolefinamine in aromatic solvent * .....	32	3	POR .....	POF.
Polyolefin aminoester salts (molecular weight 2000+) .....	34	.....	PAE.	
Polyolefin anhydride .....	11	.....	PAR.	
Polyolefin ester (C28-C250) .....	34	.....	POS.	
Polyolefin in mineral oil .....	30	.....	PLF .....	PMW.
Polyolefin phenolic amine (C28-C250) .....	9	.....	PPH.	
Polyolefin phosphorosulfide, barium derivative (C28-C250) .....	34	.....	PPS.	
Poly (oxyalkylene) alkenyl ether (MW>1000) .....	41	.....	PXY.	
Polyoxybutylene alcohol .....	41	.....	PXA.	
Poly(20)oxyethylene sorbitan monooleate .....	34	.....	PSM.	
Polyoxypropylenediamine (MW 2000) .....	7	.....	PYD.	
Poly(5+)propylene .....	30	.....	PLQ .....	PLP.
Polypropylene glycol .....	40	.....	PGC.	
<i>Polypropylene glycol methyl ether, see</i> Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether.	40	.....	PGM .....	PAG.
Polysiloxane .....	34	.....	PSX.	
Polysiloxane/White spirit, low (15–20%) aromatic .....	34	.....	PWS.	
Potassium chloride solution .....	43	.....	PCU .....	PCD/PSD.
Potassium chloride solution (10% or more) .....	43	.....	PCS .....	PCD/PCU.
Potassium chloride solution (less than 26%) .....	43	.....	PSD .....	CLM/DRL/PCS/PCU.
Potassium formate solutions .....	34	.....	PFR.	
Potassium hydroxide solution, <i>see</i> Caustic potash solution .....	5	2	.....	CPS/PTH.
Potassium oleate .....	34	.....	POE.	

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
Potassium polysulfide/Potassium thiosulfide solution (41% or less).	0	1	PYP .....	PSF/PTF.
Potassium salt of polyolefin acid .....	34	.....	PSP.	
Potassium thiosulfate (50% or less) .....	43	.....	PTF.	
Propane .....	31	.....	PRP .....	LPG.
<i>iso-Propanolamine, see</i> Isopropanolamine .....	8	.....	.....	MPA (PAX/PLA).
n-Propanolamine .....	8	.....	PLA .....	MPA/PAX.
2-Propene-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, homopolymer solution*.	0	1, 3	PLN.	
beta-Propiolactone* .....	18	3	PLT.	
Propionaldehyde .....	19	.....	PAD.	
Propionic acid .....	4	.....	PNA.	
Propionic anhydride .....	11	.....	PAH.	
Propionitrile .....	37	.....	PCN.	
<i>n-Propoxypropanol, see</i> Propylene glycol monoalkyl ether .....	40	.....	PXP .....	PGE.
n-Propyl acetate .....	34	.....	PAT .....	IAC.
n-Propyl alcohol .....	20	2	PAL .....	IPA.
n-Propylamine .....	7	.....	PRA .....	IPO/IPP/IPQ.
<i>iso-Propylamine solution, see</i> Isopropylamine (70% or less) solution.	7	.....	.....	IPQ (IPO/IPP/PRA).
<i>Propylbenzenes, see</i> Alkyl (C3-C4) benzens .....	32	.....	PBY .....	AKC (CUM/PBZ).
<i>iso-Propyl cyclohexane, see</i> Isopropylcyclohexane .....	34	.....	.....	IPX.
Propylene .....	30	.....	PPL.	
Propylene-Butylene copolymer .....	30	.....	PBP.	
Propylene carbonate .....	34	.....	PLC.	
Propylene dimer .....	30	.....	PDR.	
Propylene glycol .....	20	2	PPG.	
<i>Propylene glycol n-butyl ether, see</i> Propylene glycol monoalkyl ether.	40	.....	PGD .....	PGE.
<i>Propylene glycol ethyl ether, see</i> Propylene glycol monoalkyl ether.	40	.....	PGY .....	PGE.
<i>Propylene glycol methyl ether, see</i> Propylene glycol monoalkyl ether.	40	.....	PME .....	PGE.
Propylene glycol methyl ether acetate .....	34	.....	PGN.	
Propylene glycol monoalkyl ether .....	40	.....	PGE.	
<i>Including:</i>				
<i>n-Propoxypropanol.</i>				
<i>Propylene glycol n-butyl ether.</i>				
<i>Propylene glycol ethyl ether.</i>				
<i>Propylene glycol methyl ether.</i>				
<i>Propylene glycol propyl ether.</i>				
Propylene glycol phenyl ether .....	40	.....	PGP.	
<i>Propylene glycol propyl ether, see</i> Propylene glycol monoalkyl ether.	.....	.....	.....	PGE.
Propylene oxide .....	16	.....	POX.	
Propylene tetramer .....	30	.....	PTT.	
Propylene trimer .....	30	.....	PTR.	
<i>Pseudocumene, see</i> Trimethylbenzene (all isomers) .....	32	.....	.....	TMB/TMD/TME/TRE.
Pyridine .....	9	.....	PRD.	
<i>Pyridine bases, see</i> Paraldehyde-Ammonia reaction product .....	9	.....	.....	PRB.
Pyrolysis gasoline (containing Benzene)* .....	32	3	PYG .....	GPY.
<i>Rapeseed oil, see</i> Oil, edible: Rapeseed .....	34	.....	.....	ORO (VEO).
<i>Rapeseed oil (low erucic acid containing less than 4% free fatty acids), see</i> Oil, edible: Rapeseed, (low erucic acid containing less than 4% free fatty acids)*.	34	3	.....	ORO (VEO).
<i>Rapeseed oil fatty acid methyl esters, see</i> Oil, misc: Rapeseed fatty acid methyl esters*.	34	3	.....	RSO.
Refrigerant gases .....	0	1	RFG.	
<i>Resin oil, distilled, see</i> Oil, misc: Resin, distilled* .....	33	3	.....	ORR (ORS).
<i>Rice bran oil, see</i> Oil, misc: Rice bran .....	34	.....	.....	ORB.
<i>Rosin, see</i> Oil, misc: Rosin .....	33	.....	.....	ORN.
ROUNDUP .....	7	.....	RUP .....	GIO.
<i>Rum, see</i> Alcoholic beverages .....	20	.....	.....	ABV.
<i>Safflower oil, see</i> Oil, edible: Safflower .....	34	.....	.....	OSF (VEO)
Sewage sludge .....	43	.....	SWS.	
<i>Shea butter, see</i> Oil, edible: Shea butter* .....	34	3	.....	OSH (VEO).
Silica slurry .....	43	.....	SLC.	
Siloxanes .....	34	.....	SLX.	
Sludge, treated .....	43	.....	SWA.	
Sodium acetate, Glycol, Water mixture (not containing Sodium hydroxide).	34	2	SAW .....	SAO/SAP/SAQ/SAY.

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
Sodium acetate, Glycol, Water mixture (containing Sodium hydroxide).	5		SAQ	SAO/SAP/SAW/SAY.
Sodium acetate, Glycol, Water mixture (1% or less Sodium hydroxide) (if non-flammable or non-combustible).	5	2	SAY	SAO/SAP/SAQ/SAY.
Sodium acetate solutions	34		SAN.	
Sodium alkyl (C14-C17) sulfonates (60–65% solution)	34		SSA	AKA/AKE/SSU.
Sodium aluminate solution	5		SAV	SAU.
Sodium aluminate solution (45% or less)	5		SAU	SAV.
Sodium aluminosilicate slurry	34		SLR.	
Sodium benzoate solution	34		SBN	SBM.
Sodium bicarbonate solution (less than 10%)	34		SBC.	
Sodium borohydride (15% or less)/Sodium hydroxide solution	5		SBX	CSS/SBH/SBI/SHD.
Sodium bromide solution (less than 50%) *	43	3	SBL	SBR.
Sodium carbonate solution	5		SCE.	
Sodium chlorate solution (50% or less)	0	1, 2	SDD	SDC.
Sodium cyanide solution	5		SCO	SCN/SCS.
Sodium dichromate solution (70% or less)	0	1, 2	SDL	SCR.
Sodium hydrogen sulfide (6% or less)/Sodium carbonate (3% or less) solution.	0	1, 2	SSS	SCE/SHW.
Sodium hydrogen sulfite solution (45% or less)	43		SHY	SHX.
Sodium hydrosulfide/Ammonium sulfide solution	5	2	SSA	ASF/ASS.
Sodium hydrosulfide solution (45% or less)	5	2	SHR.	
Sodium hydroxide solution, <i>see</i> Caustic soda solution	5	2		CSS (SHD).
Sodium hypochlorite solution (15% or less)	5		SHP	SHC/SHQ.
Sodium hypochlorite solution (20% or less)	5		SHQ	SHC/SHP.
Sodium lignosulfonate solution	43		SLG	LNL.
Sodium long-chain alkyl salicylate (C13+)	34		SLS.	
Sodium-2-mercaptobenzothiazol solution, <i>see</i> Mercaptobenzothiazol, sodium salt solution.	5			SMB.
Sodium methoxide (25% in methanol)	5		SMO.	
Sodium methylate 21–30% in methanol *	20	3	SMT	SMS.
Sodium naphthalene sulfonate solution, <i>see</i> Naphthalene sulfonic acid (40% or less), sodium salt solution (40% or less).	34		SNS	NSA (NSB).
Sodium naphthenate solution, <i>see</i> Naphthenic acid, sodium salt solution.	34			NTS.
Sodium nitrite solution	5		SNI	SNT.
Sodium petroleum sulfonate	34		SPS.	
Sodium polyacrylate solution	43		SOO	SOP.
Sodium poly(4+)acrylate solution	43	2	SOP	SOO.
Sodium salt of Ferric hydroxyethylethylenediaminetriacetic acid solution, <i>see</i> Ferric hydroxyethylethylenediaminetriacetic acid, trisodium salt solution.	34		STA	FHX.
Sodium silicate solution	43	2	SSN	SSC.
Sodium sulfate solution *	34	3	SST	SSO.
Sodium sulfide/Hydrosulfide solution (H <sub>2</sub> S 15 ppm or less)	0	1, 2	SSH	SDS/SHR/SSI/SSJ.
Sodium sulfide/Hydrosulfide solution (H <sub>2</sub> S greater than 15 ppm but less than 200 ppm).	0	1, 2	SSI	SDS/SHR/SSH/SSJ.
Sodium sulfide/Hydrosulfide solution (H <sub>2</sub> S greater than 200 ppm).	0	1, 2	SSJ	SDS/SHR/SSH/SSI.
Sodium sulfide solution (15% or less)	43		SDR	SDS.
Sodium sulfite solution (25% or less)	43		SUP	SSF/SUS.
Sodium thiocyanate solution (56% or less)	0	1, 2	STS	SCY.
Sorbitol solution	20		SBU	SBT.
Soyabean fatty acid methyl ester, <i>see</i> Oil, misc: Soyabean fatty acid methyl ester.	34			OST.
Soyabean oil, <i>see</i> Oil, edible: Soyabean	34			OSB (VEO).
Stearic acid, <i>see</i> Fatty acids (saturated, C14+)	34		SRA	FAD (FAB/FAE/FDI/FDT).
Stearyl alcohol	20		SYL	ALY/ASY.
Stoddard solvent, <i>see</i> Naphtha: Stoddard solvent	33			NSS.
Styrene monomer	30		STY.	
Sulfohydrocarbon (C3-C88)	33		SFO.	
Sulfohydrocarbon, long-chain (C18+) alkylamine mixture	7		SFX.	
Sulfolane	39		SFL.	
Sulfonated polyacrylate solutions	43	2	SPA.	
Sulfur (molten)	0	1, 2	SXX.	
Sulfur dioxide	0	1	SFD.	
Sulfuric acid	2	2	SFA	SAC.
Sulfuric acid, spent	2	2	SAC	SFA.
Sulfurized fat (C14-C20)	33		SFT.	
Sulfurized polyolefinamide	7		SPY.	
Sulfurized polyolefinamide alkene(C28-C250) amine	7		SPO.	
Sunflower seed oil, <i>see</i> Oil, edible: Sunflower seed	34			OSN (VEO).

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
<i>Tall oil, see Oil, misc: Tall</i> .....	34			OTL (OTI/OTJ).
<i>Tall oil, crude, see Oil, misc: Tall, crude*</i> .....	34	2, 3		OTI (OTJ/OTL).
<i>Tall oil, distilled, see Oil, misc: Tall, distilled*</i> .....	34	3		OTJ (OTI/OTL).
Tall oil, fatty acid, <i>see Oil, misc: Tall fatty acid</i> .....	34			OTT.
<i>Tall oil fatty acid (resin acids less than 20%), see Oil, misc: Tall oil fatty acid (resin less than 20%).</i>	34	2		OTK (OTT).
Tall oil soap (crude) .....	4		TOR	TOS.
<i>Tall oil, pitch, see Oil, misc: Tall pitch*</i> .....	34	3		OTP (OTI/OTJ/OTL).
Tallow .....	34	2	TLO.	
<i>Tallow alcohol, see Alcohols (C13+)</i> .....	20	2	TFA	ALY (ASY).
Tallow alkyl nitrile .....	37		TAN.	
Tallow fatty acid .....	34	2	TFD.	
<i>Tallow fatty alcohol, see Alcohols (C13+)</i> .....	20		TFA	ALY.
<i>TAME, see tert-Amyl methyl ether</i> .....	40			AYE.
Tertiary butyl phenols .....	21		BLT	BTP.
1,1,2,2-Tetrachloroethane .....	36		TEC	TEE.
<i>Tetradecanol, see Alcohols (C13+)</i> .....	20		TTN	ALY.
<i>Tetradecene, see the olefins or alpha-olefin entries</i> .....	30			OAM/OFY/OFW/OFZ/TDD.
<i>Tetradecylbenzene, see Alkyl(C9+) benzenes</i> .....	32		TDB	AKB.
Tetraethylene glycol .....	40		TTG.	
<i>Tetraethylene glycol methyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether.</i>	40			PAG.
Tetraethylene pentamine .....	7	2	TTP.	
Tetraethyl silicate monomer/oligomer (20% in ethanol) * .....	0	1, 3	TSM.	
Tetrahydrofuran .....	41		THF.	
Tetrahydronaphthalene .....	32		THN.	
Tetramethylbenzene (all isomers) .....	32		TTC	TTB.
<i>Tetrapropylbenzene, see Alkyl(C9+) benzenes</i> .....	32			AKB.
<i>Tetrasodium salt of ethylenediaminetetraacetic acid solution, see Ethylenediaminetetraacetic acid, tetrasodium salt solution.</i>	43.			EDS.
Titanium dioxide slurry .....	43		TDS.	
Titanium tetrachloride .....	2		TTT.	
Toluene .....	32		TOL.	
Toluenediamine .....	9		TDA.	
Toluene diisocyanate .....	12		TDJ	TDI/TDJ.
o-Toluidine .....	9		TLI	TOD/TOI.
<i>Triarylphosphate, see Triisopropylated phenyl phosphates</i> .....	34		TRA	TPL.
Tributyl phosphate .....	34		TBP.	
1,2,3-Trichlorobenzene (molten) * .....	36	3	TBZ	TCB.
1,2,4-Trichlorobenzene .....	36		TCB	TBZ.
1,1,1-Trichloroethane .....	36	2	TCE	TCM.
1,1,2-Trichloroethane .....	36		TCM	TCE.
Trichloroethylene .....	36	2	TCL.	
1,2,3-Trichloropropane .....	36	2	TCN.	
1,1,2-Trichloro-1,2,2-trifluoroethane .....	36		TFE.	
Tricresyl phosphate (containing 1% or more ortho-isomer) * .....	34	3	TCO	TCP/TCQ.
Tricresyl phosphate (containing less than 1% ortho-isomer) * .....	34	3	TCP	TCO/TCQ.
<i>Tridecane (all isomers), see Alkanes (C10+) (all isomers)</i> .....	31		TRD	ALV (ALJ).
Tridecanoic acid .....	34		TDO.	
<i>Tridecanol, see Alcohols (C13+)</i> .....	20		TDN	ALY (ASK/ASY/AYK/LAL).
<i>Tridecene, see Olefins (C13+)</i> .....	30		TRD	OAM/OFY/OFW/OFZ/TDC.
Tridecyl acetate .....	34		TAE.	
<i>Tridecylbenzene, see Alkyl(C9+) benzenes</i> .....	32		TRB	AKB.
Triethanolamine .....	8	2	TEA.	
Triethylamine .....	7		TEN.	
Triethylbenzene .....	32		TEB.	
Triethylene glycol .....	40		TEG.	
<i>Triethylene glycol butyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether.</i>	40		TBE	PAG.
Triethylene glycol butyl ether mixture .....	40		TBD.	
Triethylene glycol di-(2-ethylbutyrate) .....	34		TGD.	
Triethylene glycol ether mixture .....	40		TYM.	
<i>Triethylene glycol ethyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether.</i>	40		TGE	PAG.
<i>Triethylene glycol methyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether.</i>	40		TGY	PAG.
Triethylenetetramine .....	7	2	TET.	
Triethyl phosphate .....	34		TPS.	
Triethyl phosphite .....	34	2	TPI.	
Triisobutylene .....	30		TIB.	
Triisooctyl trimellitate .....	34		TIS.	
Triisopropanolamine .....	8		TIP.	

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
<i>Triisopropanolamine salt of 2,4-Dichlorophenoxyacetic acid solution, see 2,4-Dichlorophenoxyacetic acid, Triisopropanolamine salt solution.</i>	43			DTI.
Triisopropylated phenyl phosphates	34		TPL.	
Trimethylacetic acid	4		TAA.	
Trimethylamine solution (30% or less)	7		TMT	TMA.
Trimethylbenzene (all isomers)	32		TRE	TMB/TMD/TME.
<i>Trimethyl nonanol, see Dodecanol</i>	20			DDN (ASK/ASY/LAL).
Trimethylol propane polyethoxylated	40		TPR.	
2,2,4-Trimethyl-1,3-pentanediol diisobutyrate	34		TMQ.	
2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate	34		TMP.	
2,2,4-Trimethyl-3-pentanol-1-isobutyrate	34		TMR.	
1,3,5-Trioxane	41	2	TRO.	
Triphenylborane (10% or less)/Caustic soda solution	5		TPB.	
<i>Tripropylene, see Propylene trimer</i>	30			PTR.
Tripropylene glycol	40		TGC.	
<i>Tripropylene glycol methyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether.</i>	40		TGM	PAG.
<i>Trisodium nitrilotriacetate solution, see Nitrilotriacetic acid, trisodium salt solution.</i>	34		TSO	NCA (TSN).
Trisodium phosphate solution	5		TSP.	
<i>Trisodium salt of N-(Hydroxyethyl)ethylenediaminetriacetic acid solution, see N-(Hydroxyethyl)ethylenediaminetriacetic acid, trisodium salt solution.</i>	43			HET.
<i>Trixylyl phosphate, see Trixylyl phosphate</i>	34			TRP.
Trixylyl phosphate	34			TRP.
<i>Tung oil, see Oil, misc: Tung</i>	34			OTG
Turpentine	30		TPT.	
<i>Turpentine substitute, see White spirit (low (15–20%) aromatic)</i>	33			WSL (WSP).
Ucarsol CR Solvent 302 SG	8		UCS.	
<i>Undecane (all isomers), see Alkanes (C10+) (all isomers)</i>	31		UDN	ALV (ALJ).
Undecanoic acid	4		UDA.	
<i>Undecanol, see Undecyl alcohol</i>	20			UND (ALR).
Undecene	30		UDD	UDC.
1-Undecene	30		UDC	UDD.
Undecyl alcohol	20		UND	ALR.
<i>Undecylbenzene, see Alkyl(C9+) benzenes</i>			UDB	AKB.
Urea, Ammonium mono- and di-hydrogen phosphate/Potassium chloride solution.	0	1	UPX.	
Urea/Ammonium nitrate solution *	34	3	UAV	ANU/UAS/UAT/UAV.
Urea/Ammonium nitrate solution (containing less than 1% free Ammonia).	43		UAU	ANU/UAS/UAT/UAV.
Urea/Ammonium nitrate solution (containing less than 2% free Ammonia).	6		UAT	ANU/UAS/UAV.
Urea/Ammonium phosphate solution	43		UAP.	
Urea solution	43		USL	URE.
Valeraldehyde (all isomers)	19		VAK	IVA/VAL.
Vanillin black liquor (free alkali content 3% or more)	5		VBL.	
Vegetable oils, n.o.s	34		VEO.	
<i>Including:</i>				
<i>Beechnut oil.</i>				
<i>Camelina oil.</i>				
<i>Cashew nut shell.</i>				
<i>Castor oil.</i>				
<i>Cocoa butter.</i>				
<i>Coconut oil.</i>				
<i>Corn oil.</i>				
<i>Cottonseed oil.</i>				
<i>Croton oil.</i>				
<i>Groundnut oil.</i>				
<i>Hazelnut oil.</i>				
<i>Illipe oil.</i>				
<i>Jatropha oil.</i>				
<i>Linseed oil.</i>				
<i>Mango kernel oil.</i>				
<i>Nutmeg butter.</i>				
<i>Oiticica oil.</i>				
<i>Olive oil.</i>				
<i>Palm kernel oil.</i>				
<i>Palm kernel olein.</i>				
<i>Palm kernel stearin.</i>				
<i>Palm mid fraction.</i>				

TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
<i>Palm, non-edible industrial grade.</i>				
<i>Palm oil.</i>				
<i>Palm olein.</i>				
<i>Palm stearin.</i>				
<i>Peanut oil.</i>				
<i>Peel oil (oranges and lemons).</i>				
<i>Perilla oil.</i>				
<i>Pine oil.</i>				
<i>Poppy seed oil.</i>				
<i>Poppy oil.</i>				
<i>Raisin seed oil.</i>				
<i>Rapeseed oil.</i>				
<i>Rapeseed (low erucic acid containing less than 4% free fatty acids).</i>				
<i>Resin, distilled.</i>				
<i>Resin oil.</i>				
<i>Rice bran oil.</i>				
<i>Rosin oil.</i>				
<i>Safflower oil.</i>				
<i>Salad oil.</i>				
<i>Sesame oil.</i>				
<i>Shea butter.</i>				
<i>Soyabean oil.</i>				
<i>Sunflower seed oil.</i>				
<i>Tall.</i>				
<i>Tall, crude.</i>				
<i>Tall, distilled.</i>				
<i>Tall, pitch.</i>				
<i>Tucum oil.</i>				
<i>Tung oil.</i>				
<i>Walnut oil.</i>				
Vegetable acid oils, n.o.s. ....	34		VAD.	
<i>Including:</i>				
<i>Corn acid oil.</i>				
<i>Cottonseed acid oil.</i>				
<i>Dark mixed acid oil.</i>				
<i>Groundnut acid oil.</i>				
<i>Mixed acid oil.</i>				
<i>Mixed general acid oil.</i>				
<i>Mixed hard acid oil.</i>				
<i>Mixed soft acid oil.</i>				
<i>Rapeseed acid oil.</i>				
<i>Safflower acid oil.</i>				
<i>Soya acid oil.</i>				
<i>Sunflower seed acid oil.</i>				
Vegetable fatty acid distillates*	34	3	VFD.	
<i>Including:</i>				
<i>Palm kernel fatty acid distillate.</i>				
<i>Palm oil fatty acid distillate.</i>				
<i>Tall fatty acid distillate.</i>				
<i>Tall oil fatty acid distillate.</i>				
Vegetable protein solution (hydrolyzed) .....	43		VPS.	
Vinyl acetate .....	13	2	VAM.	
Vinyl chloride .....	35		VCM.	
Vinyl ethyl ether .....	13		VEE.	
Vinylidene chloride .....	35		VCI.	
Vinyl neodecanoate .....	13	2	VND.	
Vinyltoluene .....	13		VNT.	
Water .....	43		WTR.	
Waxes .....			WAX.	
Candelilla .....	34		WCD.	
Carnauba .....	34		WCA.	
Paraffin .....	31		WPF.	
Petroleum .....	33		WPT.	
<i>White spirit, see White spirit (low (15–20%) aromatic)</i> .....	33		WSP .....	WSL.
White spirit (low (15–20%) aromatic) .....	33		WSL .....	WSP.
<i>Wine, see Alcoholic beverages</i> .....	20		ABV.	
Wood lignin with Sodium acetate/oxalate* .....	0	1, 3	WOL.	
Xylenes .....	32		XLX .....	XLM/XLO/XLP.
Xylenes/Ethylbenzene (10% or more) mixture .....	32		XEB.	
Xylenol .....	21		XYL.	
Zinc alkaryl dithiophosphate (C7-C16) .....	34		ZAD.	



TABLE I TO PART 150—ALPHABETICAL LIST OF CARGOES—Continued

Chemical name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
Zinc alkenyl carboxamide .....	10	.....	ZAA.	
Zinc alkyl dithiophosphate (C3-C14) .....	34	.....	ZAP.	
<i>Zinc bromide/Calcium bromide solution, see Drilling brine (containing Zinc salts).</i>	43	.....	.....	DZB.

Notes:

1. Because of very high reactivity or unusual conditions of carriage or potential compatibility problems, this commodity is not assigned to a specific group in Figure 1 to 46 CFR part 150 (Compatibility Chart).
2. See Appendix I to 46 CFR part 150 (Exceptions to the Chart).
3. “\*” From the March 2012 Annex to the 2007 edition of the IBC Code.
4. *Italicized* words are not part of the cargo name but may be used in addition to the cargo name.

■ 5. Revise Table II to Part 150 to read as follows:

TABLE II TO PART 150—GROUPING OF CARGOES

Group	Cargo
0. Unassigned .....	Acetone cyanohydrin <sup>1 2</sup> Alkenoic acid, polyhydroxy ester borated <sup>1</sup> Alkyl (C8-C10)/(C12-C14) : (60% or more/40% or less) Alkyl (C18-C28) toluenesulfonic acid <sup>1</sup> Alkyl (C11-C17) benzene sulfonic acid polyglucoside solution (55% or less) <sup>1</sup> Alkylbenzenesulfonic acid <sup>1 2</sup> Alkyl benzene distillation bottoms <sup>1</sup> Aluminium chloride, Hydrochloric acid solution <sup>1</sup> Aluminum chloride/Hydrogen chloride solution <sup>1</sup> Ammonium hydrogen phosphate solution <sup>1</sup> Ammonium nitrate solution <sup>1</sup> Ammonium thiocyanate, Ammonium thiosulfate solution <sup>1</sup> Benzenesulfonyl chloride <sup>1 2</sup> gamma-Butyrolactone <sup>1 2</sup> Chlorine <sup>1</sup> Chlorosulfonic acid <sup>1</sup> Decyloxytetrahydro-thiophene dioxide <sup>1</sup> tert-Dodecanethiol <sup>1</sup> 2,4-Dichlorophenoxyacetic acid, Dimethylamine salt solution (70% or less) <sup>1 2</sup> Dimethylamine salt of 2,4-Dichlorophenoxyacetic acid solution <sup>1 2</sup> Dimethyl disulfide <sup>1</sup> Diphenylol propane-Epichlorohydrin resins <sup>1</sup> Dodecylbenzenesulfonic acid <sup>1 2</sup> Dodecyl hydroxypropyl sulfide <sup>1 2</sup> Ethylene oxide <sup>1</sup> Hydrogen peroxide solutions <sup>1</sup> Hydrogenated starch hydrolysate <sup>1</sup> Lactic acid <sup>1 2</sup> Ligninsulfonic acid, sodium salt solution <sup>1</sup> Liquid chemical wastes <sup>1</sup> Long chain alkaryl sulfonic acid (C16-C60) <sup>1 2</sup> Magnesium chloride solution <sup>1 2</sup> Malitol solution <sup>1</sup> Methyl cyclopentadienyl manganese tricarbonyl <sup>1</sup> Methyl cyclopentadienyl manganese tricarbonyl (60–70%) in mineral oil <sup>1</sup> Molybdenum polysulfide long chain alkyl dithiocarbamide complex <sup>1</sup> Molasses residue <sup>1</sup> Motor fuel antiknock compounds containing Lead alkyls <sup>1</sup> Naphthalene sulfonic acid-formaldehyde copolymer, sodium salt solution <sup>1</sup> NIAX POLYOL APP 240C <sup>1 2</sup> Nitrating acid <sup>1</sup> Nitric acid (greater than 70%) <sup>1</sup> o-Nitrophenol <sup>1 2</sup> Noxious Liquid Substance, n.o.s. (NLS's) <sup>1</sup> Oleum <sup>1 2</sup> Orange juice (concentrated) <sup>1</sup> Orange juice (not concentrated) <sup>1</sup> Oxygenated aliphatic hydrocarbon mixture <sup>1</sup> Phosphorus <sup>1</sup> Phthalate based polyester polyol <sup>1 2</sup> Potassium polysulfide, Potassium thiosulfide solution (41% or less) <sup>1</sup> 2-Propene-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, homopolymer solution <sup>1</sup>

TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
	SAP 7001 <sup>1</sup>
	Sodium chlorate solution <sup>1 2</sup>
	Sodium dichromate solution <sup>1 2</sup>
	Sodium hydrogen sulfide, Sodium carbonate solution <sup>1 2</sup>
	Sodium sulfide, Hydrosulfide solution <sup>1 2</sup>
	Sodium thiocyanate solution <sup>1 2</sup>
	Sulfur <sup>1</sup>
	Tall oil fatty acid, barium salt <sup>1 2</sup>
	Tetraethyl silicate monomer/oligomer (20% in ethanol) <sup>1</sup>
	Urea, Ammonium mono- and di-hydrogen phosphate, Potassium chloride solution <sup>1</sup>
	Wood lignin with Sodium acetate/oxalate <sup>1</sup>
1. Non-Oxidizing Mineral Acids .....	Di-(2-ethylhexyl)phosphoric acid
	Ferric chloride solution
	Fluorosilicic acid (20–30%) in water solution
	Fluorosilicic acid (30% or less)
	Hydrochloric acid
	Phosphoric acid
2. Sulfuric Acids .....	Polyaluminum chloride solution
	Sulfuric acid <sup>2</sup>
	Sulfuric acid, spent
3. Nitric Acids .....	Titanium tetrachloride
	Ferric nitrate, Nitric acid solution
	Nitric acid (70% or less)
	Nitric acid (70% and over)
4. Organic Acids .....	Acetic acid <sup>2</sup>
	Acid oil mixture from soya bean, corn (maize) and sunflower oil refining
	Acrylic acid <sup>2</sup>
	Butyric acid
	i-Butyric acid
	Cashew nut shell oil (untreated)
	Citric acid (70% or less)
	Chloroacetic acid solution
	Chloroacetic acid (80% or less)
	Chloropropionic acid
	Decanoic acid
	2,2-Dichloropropionic acid
	2,2-Dimethyloctanoic acid
	2-Ethylhexanoic acid
	Fatty acids, (C8-C10)
	Fatty acids, (C12+)
	Fatty acids, (C16+)
	Fatty acids, essentially linear (C6-C18) 2-ethylhexyl ester
	Fatty acid methyl esters
	Formic acid <sup>2</sup>
	Formic acid (over 85%) <sup>2</sup>
	Formic acid mixture (containing up to 18% Propionic acid and up to 25% Sodium formate) <sup>2</sup>
	Glycolic acid
	Glyoxylic acid
	n-Heptanoic acid
	1,6-Hexanediol distillation overheads
	Hexanoic acid
	2-Hydroxy-4-(methylthio)butanoic acid
	Jatropha oil
	Long chain alkyl (C13+) salicylic acid
	Metal fatty acid salt
	Metal long chain alkyl salt
	Methacrylic acid
	Microsilica slurry
	Naphthenic acid
	Neodecanoic acid
	Nonanoic acid
	Nonanoic, Tridecanoic acid mixture
	Octanoic acid (all isomers)
	n-Pentanoic acid, 2-Methyl butyric acid mixture
	Pentanoic acid
	Propionic acid
	Trimethylacetic acid
	Undecanoic acid
5. Caustics .....	Ammonium sulfide solution (45% or less)
	Calcium hypochlorite solutions
	Calcium hypochlorite solution (15% or less)
	Calcium hypochlorite solution (more than 15%)

TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
	Caustic potash solution <sup>2</sup>
	Caustic soda solution <sup>2</sup>
	Cresylate spent caustic
	Cresylic acid, sodium salt solution
	Kraft black liquor
	Kraft pulping liquors
	Mercaptobenzothiazol, sodium salt solution
	Potassium hydroxide solution <sup>2</sup>
	Sodium acetate, Glycol, Water mixture (containing Sodium hydroxide)
	Sodium aluminate solution
	Sodium borohydride, Sodium hydroxide solution
	Sodium carbonate solutions
	Sodium cyanide solution
	Sodium hydrosulfide solution <sup>2</sup>
	Sodium hydrosulfide, Ammonium sulfide solution <sup>2</sup>
	Sodium hydroxide solution <sup>2</sup>
	Sodium hypochlorite solution
	Sodium 2-mercaptobenzothiazol solution
	Sodium naphthenate solution
	Sodium nitrite solution
	Triphenylborane, Caustic soda solution
	Trisodium phosphate solution
	Vanillin black liquor
6. Ammonia .....	Ammonia, anhydrous
	Ammonia, aqueous
	Ammonium hydroxide (28% or less Ammonia)
	Ammonium nitrate, Urea solution (containing Ammonia)
	Urea, Ammonium nitrate solution (containing Ammonia)
7. Aliphatic Amines .....	Alkenylamine mixtures
	Alkyl (greater than C8) amine, Alkenyl (greater than C12) acid ester in mineral oil
	Alkyl amine (C17 or greater)
	Alkyl (C12+) dimethylamine
	N-Aminoethylpiperazine
	Butylamine (all isomers)
	Calcium long chain alkyl phenolic amine (C8-C40)
	Crude piperazine
	Cyclohexylamine
	Dibutylamine
	Diethylamine
	Diethylenetriamine <sup>2</sup>
	Diisobutylamine
	Diisopropylamine
	Dimethylamine
	Dimethylamine solution (45% or less)
	Dimethylamine solution (greater than 45% but not greater than 55%)
	Dimethylamine solution (greater than 55% but not greater than 65%)
	N,N-Dimethylcyclohexylamine
	N,N-Dimethyldodecylamine
	Di-n-propylamine
	Diphenylamine, reaction product with 2,2,4-Trimethylpentene
	Diphenylamines, alkylated
	Dodecylamine, Tetradecylamine mixture <sup>2</sup>
	Dodecyldimethylamine, Tetradecyldimethylamine mixture
	Ethoxylated tallow alkyl amine
	Ethoxylated tallow amine (>95%)
	Ethoxylated tallow alkyl amine, glycol mixture
	Ethylamine <sup>2</sup>
	Ethylamine solution (72% or less)
	Ethyleneamine EA 1302 <sup>2</sup>
	N-Ethyl-n-butylamine
	N-Ethyl cyclohexylamine
	Ethylenediamine <sup>2</sup>
	2-Ethyl hexylamine
	N-Ethylmethylallylamine
	Glyphosate solution (not containing surfactant)
	Hexamethylenediamine
	Hexamethylenediamine (molten)
	Hexamethylenediamine solution
	Hexamethylenetetramine
	Hexamethylenetetramine solutions
	Hexamethylenimine
	HiTec 321

TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
	bis-(Hydrogenated tallow alkyl)methyl amines Isophorone diamine Isopropylamine Isopropylamine (70% or less) solution Long chain alkyl amine Long chain polyetheramine in alkyl(C2-C4)benzenes Metam sodium solution Methylamine solutions (42% or less) Morpholine <sup>2</sup> Oleylamine Pentaethylenhexamine Pentaethylenhexamine, Tetraethylenepentamine mixture Phosphate esters, alkyl (C12-C14) amine Polyalkenyl succinic anhydride amine Polyalkyl alkeneamine succinimide, molybdenum oxysulfide Polyethylene polyamines <sup>2</sup> Polyethylene polyamines (more than 50% C5-C20 paraffin oil) Poly(iminoethylene)-graft-N-poly (ethyleneoxy) solution (90% or less) Polyisobutenamine in aliphatic (C10-C14) solvent Polyolefin amide alkeneamine (C28+) Polyolefin amide alkeneamine polyol Poly olefin amine Poly (C17+) olefin amine Polyolefin amide alkeneamine/Molybdenum oxysulfide mixture Polyoxypropylenediamine (MW 2000) Propanil, Mesityl oxide, Isophorone mixture Propylamine iso-Propylamine solution Roundup Sulfohydrocarbon, long chain (C18+) alkylamine mixture Tetraethylenepentamine <sup>2</sup> Triethylamine Triethylenetetramine <sup>2</sup> Trimethylamine solution Trimethylhexamethylene diamine (2,2,4- and 2,4,4-)
8. Alkanolamines .....	Alkyl (C12-C16) propoxyamine ethoxylate 2-(2-Aminoethoxy)ethanol Aminoethyldiethanolamine, Aminoethylethanolamine solution Aminoethylethanolamine 2-Amino-2-methyl-1-propanol Diethanolamine Diethylaminoethanol Diethylethanolamine Diisopropanolamine Dimethylethanolamine Ethanolamine Ethoxylated alkyloxy alkyl amine Ethoxylated long chain (C16+) alkyloxyalkanamine Isopropanolamine Isopropanolamine solution N,N-bis (2-Hydroxyethyl) oleamide Linear alkyl (C12-C16) propoxyamine ethoxylate Methyl diethanolamine Propanolamine Triethanolamine <sup>2</sup> Triisopropanolamine Ucarsol CR Solvent 302 SG
9. Aromatic Amines .....	Alkyl (C8-C9) phenylamine in aromatic solvents Amine C-6, morpholine process residue Aniline Calcium long chain alkyl phenolic amine (C8-C40) 4-Chloro-2-methylphenoxyacetic acid, Dimethylamine salt solution Dialkyl (C8-C9) diphenylamines 2,6-Diethylaniline Dimethylamine salt of 4-Chloro-2-methylphenoxyacetic acid solution 2,6-Dimethylaniline Diphenylamine Diphenylamine (molten) Diphenylamine, reaction product with 2,2,4-trimethylpentene Diphenylamines, alkylated 2-Ethyl-6-methyl-N-(1'-methyl-2-methoxyethyl)aniline N-Methylaniline

TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
10. Amides .....	2-Methyl-6-ethyl aniline 2-Methyl-5-ethyl pyridine Methyl pyridine 2-Methylpyridine 3-Methylpyridine 4-Methylpyridine N-Methyl-2-pyrrolidone <sup>2</sup> Paraldehyde-Ammonia reaction product Polyolefin phenolic amine (C28-C250) Pyridine Pyridine bases Toluenediamine p-Toluidine Acetochlor Acrylamide solution (50% or less) Alkenyl(C11+)amide N,N-Dimethylacetamide N,N-Dimethylacetamide solution N,N-Dimethylacetamide solution (40% or less) Dimethylformamide Formamide N,N-bis(2-Hydroxyethyl) oleamide Octadecenoamide Organomolybdenum amide Polybutenyl succinimide Polyisobutenyl succinimide Zinc alkenyl carboxamide
11. Organic Anhydrides .....	Acetic anhydride Alkenylsuccinic anhydride Alkyl succinic anhydride Maleic anhydride Phthalate based polyester polyol Phthalic anhydride Polyisobutenyl anhydride adduct Polyisobutylene succinic anhydride Polyolefin anhydride Propionic anhydride
12. Isocyanates .....	Diphenylmethane diisocyanate Hexamethylene diisocyanate Isophorone diisocyanate Polymethylene polyphenyl isocyanate Toluene diisocyanate Trimethylhexamethylene diisocyanate (2,2,4- and 2,4,4-)
13. Vinyl Acetates .....	Vinyl acetate Vinyl ethyl ether Vinyl neodecanate Vinyl toluene
14. Acrylates .....	Butyl acrylate (all isomers) Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture Butyl methacrylate i-Butyl methacrylate Butyl methacrylate, Decyl methacrylate, Cetyl-Eicosyl methacrylate mixture Cetyl-Eicosyl methacrylate mixture Decyl acrylate Dodecyl methacrylate Dodecyl-Octadecyl methacrylate mixture Dodecyl-Pentadecyl methacrylate mixture Ethyl acrylate 2-Ethylhexyl acrylate Ethyl methacrylate 2-Hydroxyethyl acrylate <sup>2</sup> Isobutyl methacrylate Methacrylic resin in Ethylene dichloride Methyl acrylate Methyl methacrylate Nonyl methacrylate Polyalkyl acrylate Polyalkyl(C18-C22) acrylate in Xylene Polyalkyl (C10-C18) methacrylate/Ethylene Polyalkyl methacrylate Polyalkyl methacrylate in mineral oil Polyalkyl (C10-C20) methacrylate

TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
15. Substituted Allyls .....	Polyalkyl methacrylate solution (containing max 40% active material) Propylene copolymer mixture Roehm monomer 6615 Acrylonitrile <sup>2</sup> Allyl alcohol <sup>2</sup> Allyl chloride 1,3-Dichloropropene Dichloropropene Dichloropropene, Dichloropropane mixtures Methacrylonitrile
16. Alkylene Oxides .....	Butylene oxide Ethylene oxide, Propylene oxide mixtures Ethylene oxide/Propylene oxide mixture with an Ethylene oxide content not more than 30% by mass) Propylene oxide
17. Epichlorohydrins .....	Chlorohydrins (crude)
18. Ketones .....	Epichlorohydrin
19. Aldehydes .....	Acetone <sup>2</sup> Acetophenone Amyl methyl ketone Butyl heptyl ketone Camphor oil 1-(4-Chlorophenyl)-4,4-dimethyl pentan-3-one <sup>2</sup> Cyclohexanone Cyclohexanone, Cyclohexanol mixtures <sup>2</sup> Diisobutyl ketone Ethyl amyl ketone Epoxy resin Ketone residue Isophorone <sup>2</sup> Mesityl oxide <sup>2</sup> Methyl amyl ketone Methyl butyl ketone Methyl ethyl ketone <sup>2</sup> Methyl heptyl ketone Methyl isoamyl ketone Methyl isobutyl ketone <sup>2</sup> Methyl propyl ketone beta-Propiolactone Trifluralin in Xylene Acetaldehyde Acrolein <sup>2</sup> Butyraldehyde (all isomers) Crotonaldehyde <sup>2</sup> Decaldehyde Ethylhexaldehyde 2-Ethyl-3-propylacrolein <sup>2</sup> Formaldehyde, Methanol mixtures <sup>2</sup> Formaldehyde solutions <sup>2</sup> Furfural Glutaraldehyde solution Glyoxal solutions 3-Methyl butyraldehyde Methylolureas 3-(Methylthio)propionaldehyde Octyl aldehyde Paraldehyde Pentyl aldehyde Propionaldehyde Valeraldehyde
20. Alcohols, Glycols .....	Acrylonitrile-Styrene copolymer dispersion in Polyether polyol Alcoholic beverages Alcohol polyethoxylates Alcohol polyethoxylates, secondary Alcohols (C13+) Alcohols (C12+), primary, linear Alcohols (C12-C13), primary, linear and essentially linear Alcohols (C14-C18), primary, linear and essentially linear Alkyl (C4-C9) phenols n-Amyl alcohol Amyl alcohol, primary sec—Amyl alcohol tert- Amyl alcohol Behenyl alcohol

TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
	Bio-fuel blends of Gasoline and Ethyl alcohol (>25% but <99% by volume)
	Brake fluid base mixtures
	Brake fluid base mix: Poly(2-8)alkylene (C2-C3) glycols/Polyalkylene (C2-C10) glycols monoalkyl (C1-C4) ethers and their borate esters
	1,4-Butanediol
	Butyl alcohol <sup>2</sup> (all isomers)
	n-Butyl alcohol
	iso-Butyl alcohol
	t-Butyl alcohols
	Butylene glycol <sup>2</sup>
	Cetyl-Stearyl alcohol
	Choline chloride solutions
	Cyclohexanol
	Cyclopentanol
	Decyl alcohol (all isomers) <sup>2</sup>
	Decyl/Dodecyl/Tetradecyl alcohol mixture
	Diacetone alcohol <sup>2</sup>
	Diethyl hexanol
	Diethylene glycol
	Diethylene glycol dibenzoate
	Diisobutyl carbinol
	2,2-Dimethylpropane-1,3-diol
	Dodecanol
	Dodecyl alcohol
	Dodecyl hydroxypropyl sulfide
	Ethoxylated alcohols, C11-C15
	2-Ethoxyethanol
	Ethyl alcohol <sup>2</sup>
	Ethyl butanol
	Ethylene chlorohydrin
	Ethylene cyanohydrin
	Ethylene glycol <sup>2</sup>
	2-Ethylhexanol
	Furfuryl alcohol <sup>2</sup>
	Glycerine <sup>2</sup>
	Glycerine, Dioxanedimethanol mixture
	Glycerol monooleate
	Glycol
	Glycol mixture, crude
	Heptanol
	Hexamethylene glycol
	Hexanol
	Hexylene glycol
	Hydroxy terminated polybutadiene
	Icosa(oxypropane-2,3-diyl)s
	Isoamyl alcohol
	Isobutyl alcohol
	Isopropyl alcohol
	Lauryl polyglucose (50% or less)
	Methacrylic acid-alkyloxypoly (alkylene oxide) methacrylate copolymer sodium salt aqueous solution (45% or less)
	3-Methoxy-1-butanol
	Methyl alcohol <sup>2</sup>
	Methyl amyl alcohol
	alpha-Methylbenzyl alcohol with acetophenone (15% or less)
	Methyl butenol
	Methylbutynol
	2-Methyl-2-hydroxy-3-butyne
	Methyl isobutyl carbinol
	3-Methyl-3-methoxybutanol
	2-Methyl-1,3-propanediol
	Molasses
	Nonyl alcohol <sup>2</sup>
	Octanol (all isomers) <sup>2</sup>
	Octyl alcohol <sup>2</sup>
	Penacosa(oxypropane-2,3-diyl)s
	Pentadecanol
	Polyalkylene oxide polyol
	Polybutadiene, hydroxy terminated
	Polyglycerol
	Polyglycerine, Sodium salts solution (containing less than 3% Sodium hydroxide) <sup>2</sup>
	Polyolefin amide alkeneamine polyol
	Propyl alcohol <sup>2</sup>

TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
21. Phenols, Cresols .....	Propylene glycol <sup>2</sup> Rum Sodium methylate solution (21–30% in Methanol) Sorbitol solutions Stearyl alcohol Tallow fatty alcohol Tetradecanol Tridecanol Trimethyl nonanol Trimethylol propane polyethoxylate Undecanol Undecyl alcohol Alkylated (C4-C9) hindered phenols Benzyl alcohol Carboic oil Creosote <sup>2</sup> Creosote (coal tar) <sup>2</sup> Creosote (wood tar) <sup>2</sup> Cresols (all isomers) Cresylic acid Cresylic acid dephenolized Cresylic acid, tar Dibutylphenols 2,4-Dichlorophenol Di-tert-butyl phenols 2,4-Di-tert-butyl phenols 2,6-Di-tert-butyl phenols Dodecyl phenol o-Ethylphenol Long chain alkylphenate/phenol sulfide mixture Methylene bridged isobutylenated phenols Nonyl phenol Nonyl phenol (48–62%)/Phenol (42–48%)/Dinonyl phenol (1–10%) mixture Octyl phenol Phenol Xylenols
22. Caprolactam Solutions .....	Caprolactam solution epsilon-Caprolactam (molten or aqueous solutions)
23-29. Unassigned.	
30. Olefins .....	Acrylic acid/ethenesulfonic acid copolymer with phosphonate groups, sodium salt solution Amylene Aryl polyolefin (C11-C50) Butadiene Butadiene, Butylene mixtures (cont. Acetylenes) Butadiene Feedstock [Kirby] Butene Butene oligomer Butylene 1,5,9-Cyclododecatiene 1,3-Cyclopentadiene dimer (molten) Cyclopentadiene, Styrene, Benzene mixture Cyclopentene Decene Dichloropropene Dicyclopentadiene Dicyclopentadiene, Resin Grade, 81–89% Diisobutylene Dipentene Dodecene Ethylene Ethylene-Propylene copolymer Ethylidene norbornene <sup>2</sup> 1-Heptene Hexene (all isomers) Isoprene Isoprene concentrate (Shell) Latex (ammonia (1% or less) inhibited) Methyl acetylene, Propadiene mixture Methyl butene Methylcyclopentadiene dimer 2-Methyl-1-pentene 4-Methyl-1-pentene



TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
	alpha-Methyl styrene Myrcene Nonene 1-Octadecene Octene Olefin mixtures Olefin mixture (C7-C9) C8 rich, stabilized Olefin mixtures (C5-C7) Olefin mixtures (C5-C15) alpha-Olefins (C6-C18) mixtures alpha-Olefins (C13+) 1,3-Pentadiene 1,3-Pentadiene (greater than 50%), Cyclopentene and isomers, mixtures Pentene alpha-Pinene beta-Pinene Polybutene Poly(4+)isobutylene Polyolefin in mineral oil Polyolefin (molecular weight 300+) Polypropylene Poly(5+)propylene Propylene Propylene-butylene copolymer Propylene dimer Propylene, Propane, MAPP gas mixture Propylene tetramer Propylene trimer Styrene monomer Tetradecene Tridecene Triisobutylene Tripropylene Turpentine Undecene
31. Paraffins .....	Alkanes (C6-C9) Alkanes (C10-C26) linear and branched Alkanes (C10-C26) linear and branched (flash point > 60 °C)n-Alkanes (C10+) iso- & cyclo-Alkanes (C10-C11) iso- & cyclo-Alkanes (C12+) Aviation alkylates (C8 paraffins and iso-paraffins BPT 95-120 °C) Butane Cycloheptane Cyclohexane Cyclopentane Decane Dodecane Ethane Ethyl cyclohexane Heptane Hexane <sup>2</sup> Isopropylcyclohexane Methane Methylcyclohexane 2-Methyl pentane Mineral oil Nonane Octane Paraffin wax Pentane Polyalpha olefins Polyolefin (molecular weight 300+) Propane iso-Propylcyclohexane Tridecane Waxes: Paraffin
32. Aromatic Hydrocarbons .....	Alkyl(C3-C4)benzenes Alkyl(C5-C8)benzenes Alkyl(C9+)benzenes Alkyl acrylate-Vinyl pyridine copolymer in Toluene Alkylbenzene, Alkylindane, Alkylindene mixture (each C12-C17)

TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
	Alkylbenzene mixtures (containing at least 50% of Toluene) Alkyl toluene Alkyl (C18+) toluene Aryl polyolefin (C11-C50) Benzene Benzene hydrocarbon mixtures (having 10% Benzene or more) Benzene, Toluene, Xylene mixtures Butylbenzene (all isomers) Butyl phenol, Formaldehyde resin in Xylene Butyl toluene Cumene Cymene Decylbenzene Dialkyl(C10-C14) benzenes Diethylbenzene Diisopropylbenzene (all isomers) Diisopropyl naphthalene Diphenyl Dodecylbenzene Dodecyl xylene Ethylbenzene Ethyl toluene 1-Hexadecylnaphthalene, 1, 4-bis(Hexadecyl) 1,1-Hexadecylnaphthalene/1,4-bis (hexadecyl) naphthalene mixture 1,n-Hexadecylnaphthalene (90%), 1,4-Di-n-(hexadecyl-naphthalene (10%)) Isopropylbenzene Methyl naphthalene (molten) Naphthalene (molten) Naphthalene mixture Naphthalene still residue 1-Phenyl-1-xylyl ethane Parachlorobenzotrifluoride Poly(2+)cyclic aromatics Polyolefin amine in alkylbenzenes (C2-C4) Polyolefin amine in aromatic solvent Propylbenzene Pseudocumene Pyrolysis gasoline (containing Benzene) C9 Resinfeed (DSM) <sup>2</sup> Tetradecylbenzene Tetrahydronaphthalene 1,2,3,5-Tetramethylbenzene Toluene Tridecylbenzene Triethylbenzene Trimethylbenzene Undecylbenzene Xylene Xylenes, Ethylbenzene mixture
33. Miscellaneous Hydrocarbon Mixtures.	Alachlor Alachlor technical (90% or more) Alkylbenzenesulfonic acid, sodium salt solutions Alkyl dithiothiadiazole (C6-C24) Alkyl toluene sulfonic acid, calcium salts Alkyl (C18-C28) toluene sulfonic acid, Calcium salts, high overbase Alkyl (C18-C28) toluene sulfonic acid, Calcium salts, low overbase Asphalt blending stocks, roofers flux Asphalt blending stocks, straight run residue Asphalt emulsion Asphalt, kerosene, and other components Bio-fuel blends of Diesel/gas oil and Alkanes (C10-C26), linear and branched with a flash point > 60 °C (>25% but <99% by volume) Bio-fuel blends of Diesel/gas oil and Alkanes (C10-C26), linear and branched with a flash point < 60 °C (>25% but <99% by volume) Calcium sulfonate, Calcium carbonate, Hydrocarbon solvent mixture Coal tar Coal tar distillate Coal tar, high temperature Coal tar pitch (molten) Decahydronaphthalene Degummed C9 (DOW) Diphenyl, Diphenyl ether Distillates

TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
	Distillates, flashed feed stocks Distillates, straight run Drilling mud (low toxicity) ( <i>if flammable or combustible</i> ) Gas oil, cracked Gasoline blending stock, alkylates Gasoline blending stock, reformates Gasolines: Automotive ( <i>not over 4.23 grams lead per gal.</i> ) Aviation ( <i>not over 4.86 grams lead per gal.</i> ) Casinghead ( <i>natural</i> ) Polymer Straight run Jet Fuels: JP-4 JP-5 JP-8 Kerosene Maleated ethylene-propylene copolymer reaction product [synthetic rubber] Mineral spirits Naphtha: Coal tar solvent Petroleum Solvent Stoddard solvent Varnish Makers' and Painters' Oil, fuel: No. 1 No. 1-D No. 2 No. 2-D No. 4 No. 5 No. 6 Oil, misc: Aliphatic Aromatic Clarified Coal Crude Diesel Gas, high pour Heartcut distillate Linseed Lubricating Mineral Mineral seal Motor Neatsfoot Penetrating Pine Rosin Sperm Spindle Turbine Residual Road Transformer Oxyalkylated alkyl phenol formaldehyde Petrolatum Pine oil Polybutene Polyolefin amine (C28-C250) Polyolefin amide alkeneamine (C17+) Polyolefin amide alkeneamine (C28+) Polyolefin amide alkeneamine borate (C28-C250) Polyolefin amide alkeneamine in mineral oil Resin oil, distilled Sodium petroleum sulfonate Sulfohydrocarbon (C3-C88) Waxes: Petroleum Sulfurized fat (C14-C20)

TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
34. Esters .....	Sulfurized polyolefinamide alkeneamines (C28-C250) White spirit (low (15–20%) aromatic) Acid oil mixture from soybean, corn (maize) and sunflower oil refining Alkane (C14-C17) sulfonic acid, sodium salt solution Alkyl(C8+)amine, Alkenyl (C12+) acid ester mixture Alkylaryl phosphate mixtures, (more than 40% Diphenyl tolyl phosphate. Less than 0.02% ortho-isomer) Alkyl dithiocarbamate (C19-C35) Alkyl ester copolymer (C4-C20) Alkyl ester copolymer (C6-C18) Alkyl ester copolymer in mineral oil Alkyl(C7-C9) nitrates <sup>2</sup> Alkyl (C8-C40) phenol sulfide Alkyl (C10-C20, saturated and unsaturated) phosphite Alkyl sulfonic acid ester of phenol Alkyl (C18-C28) toluene sulfonic acid, Calcium salts, borated Alkylaryl phosphate mixtures (more than 40%) Amyl acetate (all isomers) Amyl acid phosphate t-Amyl formate Animal and Fish oils, n.o.s. Animal and Fish acid oils and distillates, n.o.s. Barium long chain alkaryl (C11-C50) sulfonate Barium long chain alkyl(C8-C14)phenate sulfide Benzene tricarboxylic acid trioctyl ester Benzyl acetate Bio-fuel blends of Diesel/gas oil and FAME (>25% but <99% by volume) Bio-fuel blends of Diesel/gas oil and vegetable oil (>25% but <99% by volume) Boronated calcium sulfonate Butyl acetate (all isomers) Butyl benzyl phthalate Butyl butyrate (all isomers) Butyl formate iso-Butyl isobutyrate n-Butyl propionate Butyl stearate Calcium alkaryl sulfonate (C11-C50) Calcium alkyl(C9)phenol sulfide, polyolefin phosphorosulfide mixture Calcium alkyl (C10-C28) salicylate Calcium carbonate slurry Calcium long chain alkaryl sulfonate (C11-C50) Calcium long chain alkyl (C5-C10) phenate Calcium long chain alkyl (C5-C20) phenate Calcium long chain alkyl (C11-C40) phenate Calcium long chain alkyl phenate sulfide (C8-C40) Calcium long chain alkyl phenates Calcium long chain alkyl salicylate (C13+) Calcium long chain alkyl (C18-C28) salicylate Calcium nitrate, Magnesium nitrate, Potassium chloride solution Calcium nitrate Calcium nitrate solutions (50% or less) Calcium salts of fatty acids Calcium stearate Camelina oil Cesium formate solution Cobalt naphthenate in solvent naphtha Coconut oil, fatty acid Coconut oil, fatty acid methyl ester Copper salt of long chain (C3-C16) fatty acid Copper salt of long chain (C17+) fatty acid Copper salt of long chain alkanolic acids Cottonseed oil, fatty acid Cyclohexyl acetate Decyl acetate Dialkyl(C7-C13) phthalates Dialkyl(C7-C17) phthalates Dialkyl thiophosphates sodium salts solution Dibutyl hydrogen phosphonate Dibutyl phthalate Dibutyl terephthalate Diethylene glycol butyl ether acetate Diethylene glycol dibenzoate Diethylene glycol ethyl ether acetate Diethylene glycol methyl ether acetate Diethylene glycol phthalate

TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
	Di-(2-ethylhexyl)adipate
	Di-(2-ethylhexyl)phthalate
	Diethyl phthalate
	Diethyl sulfate
	Diheptyl phthalate
	Dihexyl phthalate
	Di-n-hexyl adipate
	Diisobutyl phthalate
	Diisodecyl phthalate
	Diisononyl adipate
	Diisononyl phthalate
	Diisooctyl phthalate
	Dimethyl adipate
	Dimethylcyclicsiloxane hydrolyzate
	Dimethyl glutarate
	Dimethyl hydrogen phosphite <sup>2</sup>
	Dimethyl naphthalene sulfonic acid, sodium salt solution <sup>2</sup>
	Dimethyl phthalate
	Dimethyl polysiloxane
	Dimethyl succinate
	Dinonyl phthalate
	Dioctyl phthalate
	Diphenyl tolyl phosphate, less than 0.02% ortho-isomer)
	Dipropylene glycol dibenzoate
	Dithiocarbamate ester (C7-C35)
	Ditridecyl adipate
	Ditridecyl phthalate
	2-Dodeceny succinic acid, dipotassium salt solution
	Diundecyl phthalate
	2-Ethoxyethyl acetate
	Ethyl acetate
	Ethyl acetoacetate
	Ethyl butyrate
	2-Ethyl-2-(2,4-dichlorophenoxy) acetate
	2-Ethyl-2-(2,4-dichlorophenoxy) propionate
	s-Ethyl dipropylthiocarbamate
	Ethylene carbonate
	Ethylene glycol
	Ethylene glycol acetate
	Ethylene glycol butyl ether acetate
	Ethylene glycol diacetate
	Ethylene glycol ethyl ether acetate
	Ethylene glycol methyl ether acetate
	Ethyl-3-ethoxypropionate
	Ethyl hexyl phthalate
	2-Ethyl-2-(hydroxymethyl) propane-1,3-diol, C8-C10 ester
	Ethyl propionate
	Ethyl propionate
	Fatty acids (saturated, C14+)
	Glycerol polyalkoxylate
	Glyceryl triacetate
	Glycidyl ester of C10 trialkyl acetic acid
	Glycidyl ester of tridecylacetic acid
	Heptyl acetate
	Hexyl acetate
	Isobutyl formate
	Isopropyl acetate
	Lard
	Lauric acid
	Lecithin
	Magnesium long chain alkaryl sulfonate (C11-C50)
	Magnesium long chain alkyl phenate sulfide (C8-C20)
	Magnesium long chain alkyl phenate sulfide (C8-C40)
	Magnesium long chain alkyl salicylate (C11+)
	Magnesium long chain alkyl salicylate (C13+)
	Mango kernel
	3-Methoxybutyl acetate
	1-Methoxy-2-propyl acetate
	Methyl acetate
	Methyl acetoacetate
	Methyl amyl acetate
	Methyl butyrate

TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
	Methyl formate 3-Methyl-3-methoxybutyl acetate Methyl salicylate Metolachlor Naphthalene sulfonic acid, sodium salt solution (40% or less) Nitrilotriacetic acid, trisodium salt solution Nonyl acetate Octamethylcyclotetrasiloxane n-Octyl acetate Octyl decyl adipate Oil, edible: Beechnut Castor Cocoa butter Coconut <sup>2</sup> Cod liver Corn Cotton seed Fish <sup>2</sup> Groundnut Hazelnut Lard Lanolin Nutmeg butter Olive Palm <sup>2</sup> Palm kernel Peanut Poppy Poppy seed Raisin seed Rapeseed Rice bran Safflower Salad Sesame Soya bean Sunflower Sunflower seed Tucum Vegetable Walnut Oil, misc: Animal Coconut oil, fatty acid methyl ester Cotton seed oil, fatty acid Lanolin Palm kernel oil, fatty acid methyl ester Palm oil, methyl ester Pilchard Perilla Soapstock Soyabean (epoxidized) Tall Tall, fatty acid <sup>2</sup> Tung Olefin/Alkyl ester copolymer (molecular weight 2000+) Oleic acid Palm acid oil Palm fatty acid distillate Palm kernel acid oil Palm kernel acid oil, methyl ester Palm kernel oil fatty acid Palm mid fraction Palm oil Palm oil fatty acid Palm oil fatty acid methyl ester Palm kernel olein Palm kernel stearin Palm olein Palm stearin n-Pentyl propionate Phosphate esters

TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
	Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate
	Polydimethylsiloxane
	Polyferric sulfate solution
	Polymethylsiloxane
	Polyolefin amide alkeneamine borate (C28-C250)
	Poly(20)oxyethylene sorbitan monooleate
	Polysiloxane
	Polysiloxane/White spirit, low (15–20%) aromatic
	Polyolefin aminoester salt
	Polyolefin ester (C28-C250)
	Polyolefin phosphorosulfide, barium derivative (C28-C250)
	Potassium formate solution
	Potassium formate solution (75% or more)
	Potassium oleate
	Potassium salt of polyolefin acid
	Propyl acetate
	Propylene carbonate
	Propylene glycol methyl ether acetate
	Rapeseed oil fatty acid methyl esters
	Rapeseed oil (low erucic acid containing less than 4% free fatty acids)
	Shea butter
	Siloxanes
	Sodium acetate, Glycol, Water mixture (not containing Sodium hydroxide) <sup>2</sup>
	Sodium acetate solution
	Sodium alkyl (C14-C17) sulfonates 60–65% solution
	Sodium benzoate solution
	Sodium bicarbonate solution (less than 10%)
	Sodium bromide solution (less than 50%)
	Sodium dimethyl naphthalene sulfonate solution <sup>2</sup>
	Sodium long chain alkyl salicylate (C13+)
	Sodium naphthalene sulfonate solution
	Sodium petroleum sulfonate
	Sodium sulfate solutions
	Soyabean oil (epoxidized)
	Stearic acid
	Tall oil
	Tall oil, crude
	Tall oil, distilled
	Tall oil fatty acid ( <i>Resin acids less than 20%</i> ) <sup>2</sup>
	Tall oil, pitch
	Tall oil soap, crude
	Tallow <sup>2</sup>
	Tallow fatty acid <sup>2</sup>
	Tributyl phosphate
	Tricresyl phosphate
	Tricresyl phosphate (containing 1% or more ortho-isomer)
	Tricresyl phosphate (containing less than 1% ortho-isomer)
	Tridecanoic acid
	Tridecyl acetate
	Triethylene glycol dibenzoate
	Triethylene glycol di-(2-ethylbutyrate)
	Triethyl phosphate
	Triethyl phosphite <sup>2</sup>
	Triisooctyl trimellitate
	Triisopropylated phenyl phosphates
	2,2,4-Trimethyl-1,3-pentanediol diisobutyrate
	2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate
	2,2,4-Trimethyl-3-pentanol-1-isobutyrate
	Trimethyl phosphite <sup>2</sup>
	Trisodium nitrilotriacetate
	Trixylyl phosphate
	Trixylenyl phosphate
	Urea/Ammonium nitrate solution
	Vegetable acid oils and distillates, n.o.s.
	Vegetable fatty acid distillates
	Vegetable oils, n.o.s.
	Waxes:
	Carnauba
	Zinc alkaryl dithiophosphate (C7-C16)
	Zinc alkyl dithiophosphate (C3-C14)
35. Vinyl Halides .....	Vinyl chloride
	Vinylidene chloride

TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
36. Halogenated Hydrocarbons .....	Benzyl chloride Bromochloromethane Carbon tetrachloride <sup>2</sup> Catoxid feedstock <sup>2</sup> Chlorinated paraffins (C10-C13) Chlorinated paraffins (C14-C17) (with 50% Chlorine or more, and less than 1% C13 or shorter chains) Chlorinated paraffins (C14-C17) (with 52% chlorine) Chlorinated paraffins (C18+) with any level of chlorine Chlorobenzene Chlorodifluoromethane Chloroform Chlorotoluene m-Chlorotoluene o-Chlorotoluene p-Chlorotoluene Chlorotoluenes (mixed isomers) Dibromomethane Dibutylphenols 3,4-Dichloro-1-butene Dichlorobenzene (all isomers) Dichlorodifluoromethane 1,1-Dichloroethane 1,6-Dichlorohexane Dichloromethane Dichloropropane Ethyl chloride Ethylene dibromide Ethylene dichloride <sup>2</sup> Methyl bromide Methyl chloride Monochlorodifluoromethane n-Propyl chloride Pentachloroethane Perchloroethylene 1,1,2,2-Tetrachloroethane 1,2,3-Trichlorobenzene 1,2,3-Trichlorobenzene (molten) 1,2,4-Trichlorobenzene 1,1,1-Trichloroethane <sup>2</sup> 1,1,2-Trichloroethane Trichloroethylene <sup>2</sup> 1,2,3-Trichloropropane 1,1,2-Trichloro-1,2,2-trifluoroethane
37. Nitriles .....	Acetonitrile Acetonitrile (low purity grade) Adiponitrile Lactonitrile solution (80% or less) 2-Methylglutaronitrile 2-Methylglutaronitrile with 2-Ethylsuccinonitrile (12% or less) Propionitrile Tallow nitrile
38. Carbon Disulfide .....	Carbon disulfide
39. Sulfolane .....	Sulfolane
40. Glycol Ethers .....	Alcohol (C9-C11) poly (2.5-9) ethoxylates Alcohol (C6-C17) (secondary) poly (3-6) ethoxylates Alcohol (C6-C17) (secondary) poly (7-12) ethoxylates Alcohol (C12-C16) poly (1-6) ethoxylates Alcohol (C12-C16) poly (7-19) ethoxylates Alcohol (C12-C16) poly (20+) ethoxylates Alkyl (C7-C11) phenol poly(4-12)ethoxylate Alkyl (C9-C15) phenyl propoxylate Diethylene glycol <sup>2</sup> Diethylene glycol butyl ether Diethylene glycol dibutyl ether Diethylene glycol diethyl ether Diethylene glycol ethyl ether Diethylene glycol methyl ether Diethylene glycol n-hexyl ether Diethylene glycol phenyl ether Diethylene glycol propyl ether Dipropylene glycol Dipropylene glycol butyl ether



TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
	Dipropylene glycol methyl ether Ethoxy triglycol Ethylene glycol hexyl ether Ethylene glycol methyl butyl ether Ethylene glycol monoalkyl ethers Ethylene glycol tert-butyl ether Ethylene glycol butyl ether Ethylene glycol dibutyl ether Ethylene glycol ethyl ether Ethylene glycol isopropyl ether Ethylene glycol methyl ether Ethylene glycol phenyl ether Ethylene glycol phenyl ether, Diethylene glycol phenyl ether mixture Ethylene glycol propyl ether Glucitol/glycerol blend propoxylated (containing less than 10% amines) Glycerol, ethoxylated Glycerol, propoxylated Glycerol, propoxylated and ethoxylated Glycerol/Sucrose blend propoxylated and ethoxylated Hexaethylene glycol alpha-Hydro-omega-hydroxytetradeca (oxytetramethylene) Methoxy triglycol Nonyl phenol poly(4+)ethoxylates Pentaethylene glycol methyl ether Polyalkylene glycol butyl ether Polyalkylene glycols, Polyalkylene glycol monoalkyl ethers mixtures Polyether glycol (MW 600-700) (TETRAETHANE 650) Polyether glycol (MW 950-1050) (TETRAETHANE 1000) Polyether glycol (MW 1350-1450) (TETRAETHANE 1400) Polyether glycol (MW 1900-2100) (TETRAETHANE 2000) Polyether glycol (MW 2825-2975) (TETRAETHANE 2900) Polyethylene glycols Polyethylene glycol dimethyl ether Poly(ethylene glycol) methylbutenyl ether (MW>1000) Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate Polyethylene glycol monoalkyl ether Polypropylene glycol methyl ether Polypropylene glycols Poly(tetramethylene ether) glycols (MW 950-1050) Polytetramethylene ether glycol n-Propoxypropanol Propylene glycol monoalkyl ether Propylene glycol ethyl ether Propylene glycol methyl ether Propylene glycol n-butyl ether Propylene glycol phenyl ether Propylene glycol propyl ether Tetraethylene glycol Tetraethylene glycol methyl ether Triethylene glycol Triethylene glycol butyl ether Triethylene glycol butyl ether mixture Triethylene glycol ether mixture Triethylene glycol ethyl ether Triethylene glycol methyl ether Tripropylene glycol Tripropylene glycol methyl ether
41. Ethers .....	Alcohol (C12-C13, branched and linear) poly (4-8) propoxy sulfates, sodium salt 25–30% solution Alkaryl polyether (C9-C20) tert-Amyl methyl ether Brominated Epoxy Resin in Acetone Butyl ether n-Butyl ether-Dichloroethyl ether 2,2'-Dichloroisopropyl etherDiethyl ether Diethylene glycol propyl ether Diglycidyl ether of Bisphenol A Diglycidyl ether of Bisphenol F Dimethyl furan 1,4-Dioxane Diphenyl ether Diphenyl ether, Diphenyl phenyl ether mixture

TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
	Ethyl tert-butyl ether Ethyl ether Isopropyl ether Long chain alkaryl polyether (C11-C20) Methyl-tert-butyl ether <sup>2</sup> Methyl tert-pentyl ether Polyether (molecular weight 2000+) Polyether, borated Polyether polyols Poly(oxyalkylene)alkenyl ether (MW>1000) Polyoxybutylene alcohol Propyl ether Tetrahydrofuran 1,3, 5-Trioxane
42. Nitrocompounds .....	o-Chloronitrobenzene Dinitrotoluene Nitrobenzene Nitroethane Nitroethane (80%)/Nitropropane (20%) Nitroethane, 1-Nitropropane mixture Nitropropane Nitropropane, Nitroethane mixtures Nitrophenol (mixed isomers) o- or p-Nitrotoluenes
43. Miscellaneous Water Solutions	Alkyl (C8-C10)/(C12-C14):(40% or less/60% or more) polyglucoside solution (55% or less) Alkyl (C8-C10)/(C12-C14):(50%/50%) polyglucoside solution (55% or less) Alkyl (C8-C10)/(C12-C14):(60% or more/40% or less) polyglucoside solution (55% or less) Alkyl (C8-C10) polyglucoside solution (65% or less) Alkyl (C12-C14) polyglucoside solution (55% or less) Alkyl polyglucoside solutions Aluminum hydroxide, sodium hydroxide, sodium carbonate solution (40% or less) Aluminum sulfate solution <sup>2</sup> 2-Amino-2-hydroxymethyl-1,3-propanediol solution Ammonium bisulfite solution <sup>2</sup> Ammonium chloride solution (less than 25%) drilling brines Ammonium chloride solution (less than 25%) Ammonium lignosulfonate solution Ammonium nitrate, Urea solution (not containing Ammonia) Ammonium polyphosphate solution Ammonium sulfate solution Ammonium thiosulfate solution (60% or less) Barium sulfate slurry Calcium bromide solution Calcium chloride solution Calcium formate solution Calcium lignosulfonate solution Calcium lignosulfonate solution (free alkali content 1% or less) Caramel solutions Clay slurry Coal slurry Corn syrup Dextrose solution 2,4-Dichlorophenoxyacetic acid, Diethanolamine salt solution 2,4-Dichlorophenoxyacetic acid, Triisopropanolamine salt solution <sup>2</sup> Diethanolamine salt of 2,4-Dichlorophenoxyacetic acid solution Diethylenetriamine pentaacetic acid, pentasodium salt solution Dodecyl diphenyl ether disulfonate solution Drilling brine (containing Calcium, Potassium, or Sodium salts) Drilling brine (containing Zinc salts) Drilling brines, including: Calcium bromide solution, Calcium chloride solution and Sodium chloride solution Drilling mud (low toxicity) ( <i>if non-flammable or non-combustible</i> ) Ethylenediaminetetracetic acid, tetrasodium salt solution Ethylene-Vinyl acetate copolymer emulsion Ferric hydroxyethylethylenediamine triacetic acid, trisodium salt solution <sup>2</sup> Ferrous chloride solution (less than 40%, containing less than 10% Manganese and Aluminum chlorides) Fish solubles ( <i>water based fish meal extracts</i> ) Fructose solution Fumaric adduct of Rosin, water dispersion Hexamethylenediamine adipate solution N-(Hydroxyethyl)ethylene diamine triacetic acid, trisodium salt solution Kaolin clay slurry Latex: Carboxylated Styrene-Butadiene copolymer; Styrene-butadiene rubber

TABLE II TO PART 150—GROUPING OF CARGOES—Continued

Group	Cargo
	Latex, liquid synthetic Lignin liquor Ligninsulfonic acid, magnesium salt solution Liquid Streptomyces solubles L-Lysine solution (60% or less) Magnesium nitrate solution (66.7%) N-Methylglucamine solution N-Methylglucamine solution (70% or less) Naphthenic acid, sodium salt solution Polyacrylic acid solution (40% or less) Potassium chloride solution Potassium chloride solution (less than 26%) Potassium thiosulfate solution Potassium thiosulfate solution (50% or less) Rosin soap (disproportionated) solution Sewage sludge, treated Sodium alkyl sulfonate solution Sodium bromide solution (less than 50%) Sodium hydrogen sulfite solution Sodium lignosulfonate solution Sodium polyacrylate solution <sup>2</sup> Sodium salt of Ferric hydroxyethylethylenediamine triacetic acid solution Sodium silicate solution <sup>2</sup> Sodium sulfide solution Sodium sulfite solution Sodium sulfite solution (25% or less) Sodium tartrates, Sodium succinates solution Sulfonated polyacrylate solutions <sup>2</sup> Tall oil soap (disproportionated) solution Tetrasodium salt of EDTA solution Titanium dioxide slurry Triisopropanolamine salt of 2,4-Dichlorophenoxyacetic acid solution Urea, Ammonium nitrate solution (not containing Ammonia) Urea, Ammonium phosphate solution Urea solution Vegetable protein solution (hydrolysed) Water

Notes:

<sup>1</sup> Because of very high reactivity or unusual conditions of carriage or potential compatibility problems, this commodity is not assigned to a specific group in Figure 1 to 46 CFR part 150 (Compatibility Chart).

<sup>2</sup> See Appendix I to 46 CFR part 150 (Exceptions to the Chart).

■ 6. Revise Appendix I to part 150 to read as follows:

**Appendix I to Part 150—Exceptions to the Chart**

(a) The binary combinations listed below have been tested as prescribed in Appendix

III to part 150 and found not to be dangerously reactive. These combinations are exceptions to Figure 1 of part 150 (Compatibility Chart) and may be stowed in adjacent tanks.

Member of reactive group	Compatible with
Acetone (18) .....	Diethylenetriamine (7).
Acetone cyanohydrin (0) .....	Acetic acid (4).
Acrylonitrile (15) .....	Triethanolamine (8).
n-Butyl alcohol (20) .....	Caustic Potash (50% or less).
1,3-Butylene glycol (20) .....	Morpholine (7).
1,4-Butylene glycol (20) .....	Ethylamine (7).
	Triethanolamine (8).
gamma-Butyrolactone (0) .....	N-Methyl-2-pyrrolidone (9).
Caustic potash, 50% or less (5) .....	Isobutyl alcohol (20).
	Ethyl alcohol (20).
	n-Butyl alcohol (20).
	Ethylene glycol (20).
	Isopropyl alcohol (20).
	Methyl alcohol (20).
	iso-Octyl alcohol (20).
	Propylene glycol (20).
Caustic soda, 50% or less (5) .....	Acrylonitrile/Styrene copolymer dispersion in Polyether polyol (20).
	iso-Butyl alcohol (20).

Member of reactive group	Compatible with
1,1-Dichloroethane (36) ..... Dimethyl disulfide (0) .....	Butyl alcohol (20). tert-Butyl alcohol, Methanol mixtures. Decyl alcohol (20). Cetyl alcohol (20). Alcohol (C12-C16) poly(1-6)ethoxylates) (20). iso-Decyl alcohol (20). Diacetone alcohol (20). Diethylene glycol (40). Dodecyl alcohol (20). Ethyl alcohol (20). Ethyl alcohol (40%, whiskey) (20). Ethylene glycol (20). Ethylene glycol, Diethylene glycol mixture (20). Ethyl hexanol (Octyl alcohol) (20). Methyl alcohol (20). Nonyl alcohol (20). iso-Decyl alcohol (20). iso-Nonyl alcohol (20). Propyl alcohol (20). iso-Propyl alcohol (20). Propylene glycol (20). Sodium chlorate solution (0). iso-Tridecanol (20). Dimethyl disulfide (0). Acetic acid (4). Acetic anhydride (11). Acetone (18). Acrylates (14). Acrylic acid (4). Alcohols, Glycols (20). Aromatic hydrocarbons (32). Benzene (32). Cyclohexanone (18). Diisononyl phthalate (34). Esters (34). Ethyl acetate (34). Ethyl acrylate (14). Ethyl dichloride (36) [1,1-Dichloroethane]. Ethylene cyanohydrin (20). Ethylene glycol ethyl ether acetate (34) [2-Ethoxyethyl acetate]. Formic acid (4). Halogenated hydrocarbons (36). Ketones (18). Mesityl oxide, Methyl ethyl ketone (18). Octene, Olefins (30). Organic acids (4). Organic anhydrides (11). Paraffins (31). Phenol (21). Phenols, Cresols (21). Trichloroethylene (36). Perchloroethylene (36). Dichloromethane (36). 2,2-Dimethylpropane-1,3-diol (20). Polypropylene glycol (40). Trichloroethylene (36). Acetone (18). Acrylonitrile (15). 2-Butoxyethanol (20). n-Butyl acrylate (14). Caustic soda solution (50%) (5). Chloroform (36). iso-Decyl alcohol (20). Dichloromethane (36). Diglycidyl ether of Bisphenol A (41). Diisodecyl phthalate (34). Diglycidyl ether of Bisphenol A (41). Dichloromethane (36). Diisodecyl phthalate (DIDP) (34). Dipropylene glycol (40). Epichlorohydrin (17). Ethyl acrylate (14). Methanol (20). Methyl ethyl ketone (18).
Diphenylmethane diisocyanate (12) .....	
tert-Dodecanethiol (0) .....	

Member of reactive group	Compatible with
	Naphtha, Solvent (33). iso-Nonyl alcohol (20). Perchloroethylene (36). iso-Propyl alcohol (20). iso-Propylamine solution (70%) (7). Propylene glycol methyl ether (40). Propylene glycol methyl ether acetate (34). Tall oil, crude (34). Toluene (32). Toluene diisocyanate (TDI) (12). White mineral oil (Carnation oil) (33).
Dodecyl and Tetradecylamine mixture (7) .....	Tall oil, fatty acid (34).
Ethylenediamine (7) .....	Butyl alcohol (20). tert-Butyl alcohol (20). Butylene glycol (20). Creosote (21). Diethylene glycol (40). Ethyl alcohol (20). Ethylene glycol (20). Ethyl hexanol (20). Fatty alcohols (C12-C14). Glycerine (20). Isononyl alcohol (20). Isophorone (18). Methyl butyl ketone (18). Methyl iso-butyl ketone (18). Methyl ethyl ketone (18). Propyl alcohol (20). Propylene glycol (20).
Lactic acid (0) .....	Acetic acid (4). Benzene (32). Ethanol (20). Polypropylene glycol (40).
Oleum (0) .....	Vinyl acetate (13). Hexane (31).
1,2-Propylene glycol (20) .....	Dichloromethane (36). Perchloroethylene (36). Diethylenetriamine (7). Polyethylene polyamines (7). Triethylenetetramine (7).
Sodium cresylate as Cresylate spent caustic (5) .....	Methyl alcohol (20).
Sodium dichromate, 70% (0) .....	Methyl alcohol (20).
Sodium dichromate, 69% (0) .....	1-Hexene (30).
Sodium hydrogen sulfide solution (5) .....	iso-Propyl alcohol (20).
Sodium hydrosulfide solution (5) .....	Methyl alcohol (20). Iso-Propyl alcohol (20).
Sulfuric acid (2) .....	Coconut oil (34). Coconut oil acid (34). Palm oil (34). Tallow (34).
Sulfuric acid, 98% or less (2) .....	Choice white grease tallow (34).

(b) The binary combinations listed below have been determined to be dangerously reactive, based on either data obtained in the literature or on laboratory testing which has been carried out in accordance with procedures prescribed in Appendix III. These combinations are exceptions to the Compatibility Chart (Figure 1) and may not be stowed in adjacent tanks.

Acetone cyanohydrin (0) is not compatible with Groups 1-12, 16, 17 and 22.

Acrolein (19) is not compatible with Group 1, Non-Oxidizing Mineral Acids.

Acrylic acid (4) is not compatible with Group 9, Aromatic Amines.

Acrylonitrile (15) is not compatible with Group 5 (Caustics).

Alkylbenzenesulfonic acid (0) is not compatible with Groups 1-3, 5-9, 15, 16, 18, 19, 30, 34, 37, and strong oxidizers.

Allyl alcohol (15) is not compatible with Group 12, Isocyanates.

Alkyl (C7-C9) nitrates (34) is not compatible with Group 1, Non-oxidizing Mineral Acids.

Aluminum sulfate solution (43) is not compatible with Groups 5-11.

Ammonium bisulfite solution (43) is not compatible with Groups 1, 3, 4, and 5.

Benzenesulfonyl chloride (0) is not compatible with Groups 5-7, and 43.

1,4-Butylene glycol (20) is not compatible with Caustic soda solution, 50% or less (5).

gamma-Butyrolactone (0) is not compatible with Groups 1-9.

C9 Resinfeed (DSM) (32) is not compatible with Group 2, Sulfuric acid.

Carbon tetrachloride (36) is not compatible with Tetraethylenepentamine or

Triethylenetetramine, both Group 7, Aliphatic amines.

Catoxid feedstock (36) is not compatible with Group 1, 2, 3, 4, 5, or 12.

Caustic soda solution, 50% or less (5) is not compatible with 1,4-Butylene glycol (20).

1-(4-Chlorophenyl)-4,4-dimethyl pentan-3-one (18) is not compatible with Group 5 (Caustics) or 10 (Amides).

Crotonaldehyde (19) is not compatible with Group 1, Non-Oxidizing Mineral Acids.

Cyclohexanone, Cyclohexanol mixture (18) is not compatible with Group 12, Isocyanates.

2,4-Dichlorophenoxyacetic acid, Triisopropanolamine salt solution (43) is not compatible with Group 3, Nitric Acid.

2,4-Dichlorophenoxyacetic acid, Dimethylamine salt solution (0) is not compatible with Groups 1-5, 11, 12, and 16.

Diethylenetriamine (7) is not compatible with 1,2,3-Trichloropropane, Group 36, Halogenated hydrocarbons.

Dimethyl hydrogen phosphite (34) is not compatible with Groups 1 and 4.

Dimethyl naphthalene sulfonic acid, sodium salt solution (34) is not compatible with Group 12, Formaldehyde, and strong oxidizing agents.

Dodecylbenzenesulfonic acid (0) is not compatible with oxidizing agents and Groups 1, 2, 3, 5, 6, 7, 8, 9, 15, 16, 18, 19, 30, 34, and 37.

Ethylenediamine (7) and Ethyleneamine EA 1302 (7) are not compatible with either Ethylene dichloride (36) or 1,2,3-Trichloropropane (36).

Ethylene dichloride (36) is not compatible with Ethylenediamine (7) or Ethyleneamine EA 1302 (7).

Ethylidene norbornene (30) is not compatible with Groups 1–3 and 5–8.

2-Ethyl-3-propylacrolein (19) is not compatible with Group 1, Non-Oxidizing Mineral Acids.

Ethyl tert-butyl ether (41) is not compatible with Group 1, Non-oxidizing mineral acids.

Fatty acids, essentially linear, C6-C18, 2-ethylhexyl ester (4) is not compatible with Group 3, Nitric acid.

Ferric hydroxyethylethylenediamine triacetic acid, Sodium salt solution (43) is not compatible with Group 3, Nitric acid.

Fish oil (34) is not compatible with Sulfuric acid (2).

Formaldehyde (over 50%) in Methyl alcohol (over 30%) (19) is not compatible with Group 12, Isocyanates.

Formic acid (4) is not compatible with Furfural alcohol (20).

Furfuryl alcohol (20) is not compatible with Group 1, Non-Oxidizing Mineral Acids and Formic acid (4).

1,6-Hexanediol distillation overheads (4) is not compatible with Group 3, Nitric acid, and Group 9, Aromatic amines.

2-Hydroxyethyl acrylate (14) is not compatible with Group 5, 6, or 12.

Isophorone (18) is not compatible with Group 8, Alkanolamines.

Lactic acid (0) is not compatible with Caustic soda solution.

Magnesium chloride solution (0) is not compatible with Groups 2, 3, 5, 6 and 12.

Mesityl oxide (18) is not compatible with Group 8, Alkanolamines.

Methacrylonitrile (15) is not compatible with Group 5 (Caustics).

Methyl tert-butyl ether (41) is not compatible with Group 1, Non-oxidizing Mineral Acids.

Nitroethane, 1-Nitropropane (each 15% or more) mixture (42) is not compatible with Group 7, Aliphatic amines, Group 8, Alkanol amines, and Group 9, Aromatic amines.

Nitropropane (20%), nitroethane (80%) mixture (42) is not compatible with Group 7 (Aliphatic amines), Group 8 (Alkanol amines), and Group 9 (Aromatic amines).

NIAX POLYOL APP 240C (0) is not compatible with Groups 2, 3, 5, 7, or 12.

o-Nitrophenol (0) is not compatible with Groups 2, 3, and 5–10.

Octyl nitrates (all isomers), see Alkyl(C7-C9) nitrates.

Oleum (0) is not compatible with Sulfuric acid (2) and 1,1,1-Trichloroethane (36).

Phthalate based polyester polyol (0) is not compatible with Groups 2, 3, 5, 7 and 12.

Polyglycerine, Sodium salts solution (20) is not compatible with Groups 1, 4, 11, 16, 17, 19, 21 and 22.

Propylene, Propane, MAPP gas mixture (containing 12% or less MAPP gas) (30) is not compatible with Group 1 (Non-oxidizing mineral acids), Group 36 (Halogenated hydrocarbons), nitrogen dioxide, oxidizing materials, or molten sulfur.

Sodium acetate, Glycol, Water mixture (1% or less Sodium hydroxide) (34) is not compatible with Group 12 (Isocyanates).

Sodium chlorate solution (50% or less) (0) is not compatible with Groups 1–3, 5, 7, 8, 10, 12, 13, 17 and 20.

Sodium dichromate solution (70% or less) (0) is not compatible with Groups 1–3, 5, 7, 8, 10, 12, 13, 17 and 20.

Sodium dimethyl naphthalene sulfonate solution (34) is not compatible with Group 12, Formaldehyde and strong oxidizing agents.

Sodium hydrogen sulfide, Sodium carbonate solution (0) is not compatible with Groups 6 (Ammonia) and 7 (Aliphatic amines).

Sodium hydrosulfide (5) is not compatible with Groups 6 (Ammonia) and 7 (Aliphatic amines).

Sodium hydrosulfide, Ammonium sulfide solution (5) is not compatible with Groups 6 (Ammonia) and 7 (Aliphatic amines).

Sodium polyacrylate solution (43) is not compatible with Group 3, Nitric Acid.

Sodium silicate solution (43) is not compatible with Group 3, Nitric Acid.

Sodium sulfide, hydrosulfide solution (0) is not compatible with Groups 6 (Ammonia) and 7 (Aliphatic amines).

Sodium thiocyanate (56% or less) (0) is not compatible with Groups 1–4.

Sulfonated polyacrylate solution (43) is not compatible with Group 5 (Caustics).

Sulfuric acid (2) is not compatible with Fish oil (34), or Oleum (0).

Tall oil fatty acid (Resin acids less than 20%) (34) is not compatible with Group 5, Caustics.

Tallow fatty acid (34) is not compatible with Group 5, Caustics.

Tetraethylenepentamine (7) is not compatible with Carbon tetrachloride, Group 36, Halogenated hydrocarbons.

1,2,3-Trichloropropane (36) is not compatible with Diethylenetriamine, Ethylenediamine, Ethyleaneamine EA 1302, or Triethylenetetramine, all Group 7, Aliphatic amines.

1,1,1-Trichloroethane (36) is not compatible with Oleum (0).

Trichloroethylene (36) is not compatible with Group 5, Caustics.

Triethylenetetramine (7) is not compatible with Carbon tetrachloride, or 1,2,3-Trichloropropane, both Group 36, Halogenated hydrocarbons.

Triethyl phosphite (34) is not compatible with Groups 1, and 4.

Trimethyl phosphite (34) is not compatible with Groups 1 and 4.

1,3,5-Trioxane (41) is not compatible with Group 1 (non-oxidizing mineral acids) and Group 4 (Organic acids).

Vinyl neodecanoate (13) is not compatible with Group 5, Caustics.

**PART 153—SHIPS CARRYING BULK LIQUID, LIQUEFIED GAS, OR COMPRESSED GAS HAZARDOUS MATERIALS**

■ 7. The authority citation for part 153 continues to read as follows:

**Authority:** 46 U.S.C. 3703; Department of Homeland Security Delegation No. 0170.1. Section 153.40 issued under 49 U.S.C. 5103. Sections 153.470 through 153.491, 153.1100 through 153.1132, and 153.1600 through 153.1608 also issued under 33 U.S.C. 1903(b).

■ 8. Revise Table 2 to part 153 to read as follows:

**TABLE 2 TO PART 153—CARGOES NOT REGULATED UNDER SUBCHAPTERS D OR O OF THIS CHAPTER WHEN CARRIED IN BULK ON NON-OCEANGOING BARGES**

[The cargoes listed in this table are not regulated under subchapter D or O of this title when carried in bulk on non-oceangoing barges. Category X, Y, or Z noxious liquid substance (NLS) cargo, as defined in Annex II of MARPOL 73/78, listed in this table, or any mixture containing one or more of these cargoes, must be carried under this subchapter if carried in bulk on an oceangoing ship.]

Cargoes	Pollution category
Acrylic acid/ethenesulfonic acid copolymer with phosphonate groups, sodium salt solution *	Z
Aluminum sulfate solution *	Y
2-Amino-2-hydroxymethyl-1,3-propanediol solution	#
Ammonium hydrogen phosphate solution	Z
Ammonium lignosulfonate solutions, <i>see also</i> Lignin liquor	Z
Ammonium nitrate solution (45% or less)	#
Ammonium phosphate, urea solution, <i>see also</i> Urea, Ammonium phosphate solution	#

TABLE 2 TO PART 153—CARGOES NOT REGULATED UNDER SUBCHAPTERS D OR O OF THIS CHAPTER WHEN CARRIED IN BULK ON NON-OCEANGOING BARGES—Continued

[The cargoes listed in this table are not regulated under subchapter D or O of this title when carried in bulk on non-oceangoing barges. Category X, Y, or Z noxious liquid substance (NLS) cargo, as defined in Annex II of MARPOL 73/78, listed in this table, or any mixture containing one or more of these cargoes, must be carried under this subchapter if carried in bulk on an oceangoing ship.]

Cargoes	Pollution category
Ammonium polyphosphate solution .....	Z
Ammonium sulfate solution .....	Z
Ammonium thiosulfate solution (60% or less) .....	Z
Apple juice .....	OS
Calcium bromide solution .....	Z
Calcium carbonate slurry .....	OS
Calcium chloride solution .....	Z
Calcium hydroxide slurry .....	Z
Calcium lignosulfonate solution, <i>see also</i> Lignin liquor .....	Z
Calcium nitrate solutions (50% or less) * .....	Z
Calcium nitrate/Magnesium nitrate/Potassium chloride solution .....	Z
Caramel solutions .....	#
Chlorinated paraffins (C14-C17) (with 50% Chlorine or more, and less than 1% C13 or shorter chains) * .....	X
Chlorinated paraffins (C14-C17) (with 52% Chlorine) .....	#
2-Chloro-4-ethylamino-6-isopropylamino-5-triazine solution .....	#
4-Chloro-2-methylphenoxycetic acid, dimethylamine salt solution * .....	Y
Choline chloride solutions .....	Z
Clay slurry .....	OS
Coal slurry .....	OS
<i>Dextrose solution, see</i> Glucose solution .....	.....
Diethylenetriamine pentaacetic acid, pentasodium salt solution .....	Z
1,4-Dihydro-9,10-dihydroxy anthracene, disodium salt solution .....	#
Dodeceny succinic acid, dipotassium salt solution .....	#
Drilling brine (containing Calcium, Potassium, or Sodium salts) ( <i>see also</i> Potassium chloride solution (10% or more)) .....	#
Drilling brines, including: Calcium bromide solution, Calcium chloride solution and Sodium chloride solution (if non-flammable and non-combustible) .....	Z
Drilling brines (containing Zinc salts) .....	X
Drilling mud (low toxicity) (if non-flammable and non-combustible) .....	#
Ethylene-Vinyl acetate copolymer (emulsion) .....	Y
Ferric hydroxyethylethylenediamine triacetic acid, trisodium salt solution .....	#
Fish solubles (water based fish meal extracts) .....	#
Fructose solution .....	#
Glucose solution .....	OS
Glycine, Sodium salt solution .....	Z
Glyphosate solution (not containing surfactant) * .....	Y
Hexamethylenediamine adipate solution .....	#
Hexamethylenediamine adipate (50% in water) .....	Z
N-(Hydroxyethyl)ethylenediamine triacetic acid, trisodium salt solution .....	Y
Kaolin clay solution .....	#
Kaolin slurry .....	OS
Kraft pulping liquor (free alkali content, 1% or less) <i>including: Black, Green, or White liquor</i> .....	#
Lignin liquor (free alkali content, 1% or less) .....	Z
<i>including:</i>	
Ammonium lignosulfonate solutions .....	Z
Calcium lignosulfonate solutions .....	Z
Sodium lignosulfonate solution .....	Z
Ligninsulfonic acid, Sodium salt solution .....	Z
Magnesium chloride solution .....	Z
Magnesium hydroxide slurry .....	Z
Magnesium sulfonate solution .....	#
Maltitol solution * .....	OS
Microsilica slurry * .....	OS
Milk .....	#
Molasses .....	OS
Molasses residue (from fermentation) .....	#
Naphthalenesulfonic acid-Formaldehyde copolymer, sodium salt solution .....	Z
Naphthenic acid, sodium salt solution .....	#
Nitritotriacetic acid, trisodium salt solution * .....	Y
Noxious liquid, NF, (1) n.o.s. (“trade name” contains “principle components”) ST 1, Cat X (if non-flammable and non-combustible) .....	X
Noxious liquid, NF, (3) n.o.s. (“trade name” contains “principle components”) ST 2, Cat X (if non-flammable and non-combustible) .....	X
Noxious liquid, NF, (5) n.o.s. (“trade name” contains “principle components”) ST 2, Cat Y (if non-flammable and non-combustible) .....	Y
Noxious liquid, NF, (7) n.o.s. (“trade name” contains “principle components”) ST 3, Cat Y (if non-flammable and non-combustible) .....	Y

TABLE 2 TO PART 153—CARGOES NOT REGULATED UNDER SUBCHAPTERS D OR O OF THIS CHAPTER WHEN CARRIED IN BULK ON NON-OCEANGOING BARGES—Continued

[The cargoes listed in this table are not regulated under subchapter D or O of this title when carried in bulk on non-oceangoing barges. Category X, Y, or Z noxious liquid substance (NLS) cargo, as defined in Annex II of MARPOL 73/78, listed in this table, or any mixture containing one or more of these cargoes, must be carried under this subchapter if carried in bulk on an oceangoing ship.]

Cargoes	Pollution category
Noxious liquid, NF, (9) n.o.s. (“trade name” contains “principle components”) ST 3, Cat Z (if non-flammable and non-combustible) .....	Z
Noxious liquid, NF, (11) n.o.s. (“trade name” contains “principle components”) Cat Z (if non-flammable and non-combustible) ...	Z
Noxious liquid, NF, (12) n.o.s. (“trade name” contains “principle components”) Cat OS (if non-flammable and non-combustible)	OS
Orange juice (concentrated) * .....	OS
Orange juice (not concentrated) * .....	OS
<i>Pentasodium salt of Diethylenetriamine pentaacetic acid solution, see Diethylenetriamine pentaacetic acid, pentasodium salt solution</i> .....	
Polyaluminum chloride solution .....	Z
<i>Potassium chloride solution (26% or more), see Drilling brines, including: Calcium bromide solution, Calcium chloride solution and Sodium chloride solution</i> .....	
Potassium chloride solution (less than 26%) * .....	OS
Potassium formate solutions * .....	Z
Potassium thiosulfate (50% or less) * .....	Y
Sewage sludge, treated ( <i>treated so as to pose no additional decompositional and fire hazard; stable, non-corrosive, non-toxic, non-flammable</i> ) .....	#
Silica slurry .....	#
Sludge, treated ( <i>treated so as to pose no additional decompositional and fire hazard; stable, non-corrosive, non-toxic, non-flammable</i> ) .....	#
Sodium acetate, Glycol, Water mixture (containing 1% or less Sodium hydroxide) (if non-flammable or non-combustible) .....	#
Sodium acetate solutions .....	Z
Sodium alkyl (C14-C17) sulfonates (60–65% solution) * .....	Y
Sodium aluminosilicate slurry .....	Z
Sodium bicarbonate solution (less than 10%) * .....	OS
Sodium carbonate solution .....	Z
Sodium hydrogen sulfide (6% or less)/Sodium carbonate (3% or less) solution * .....	Z
Sodium lignosulfonate solution, <i>see also</i> Lignin liquor .....	Z
<i>Sodium naphthenate solution (free alkali content, 3% or less), see Naphthenic acid, sodium salt solution</i> .....	
Sodium poly(4+)acrylate solutions .....	Z
Sodium silicate solution .....	Y
Sodium sulfate solutions .....	Z
Sodium sulfite solution (25% or less) * .....	Y
Sodium thiocyanate solution (56% or less) * .....	Y
Sorbitol solution .....	OS
Sulfonated polyacrylate solution .....	Z
<i>Tetrasodium salt of Ethylenediaminetetraacetic acid solution, see Ethylenediaminetetraacetic acid, tetrasodium salt solution</i> .....	
Titanium dioxide slurry .....	Z
1,1,1-Trichloroethane .....	Y
1,1,2-Trichloro-1,2,2-trifluoroethane .....	Y
<i>Trisodium salt of N-(Hydroxyethyl)ethylenediamine triacetic acid solution, see N-(Hydroxyethyl)ethylenediamine triacetic acid, trisodium salt solution.</i> .....	
Urea, Ammonium mono- and di-hydrogen phosphate, Potassium chloride solution .....	#
Urea/Ammonium nitrate solution * .....	Z
Urea/Ammonium phosphate solution .....	Y
Urea solution .....	Z
Vanillin black liquor (free alkali content, 1% or less) .....	#
Vegetable protein solution (hydrolyzed) (if non-flammable and non-combustible) .....	OS
Water .....	OS
<i>Zinc bromide, Calcium bromide solution, see Drilling brines (containing Zinc salts)</i> .....	

Explanation of Symbols Used in this Table:

X, Y, Z—NLS Category of Annex II of MARPOL 73/78.

#—No determination of NLS status. For shipping on an oceangoing vessel, see 46 CFR 153.900(c).

OS—Other substances, at present considered to present no harm to marine resources, human health, amenities or other legitimate uses of the sea when discharged into the sea from tank cleaning or deballasting operations.

Abbreviations for Noxious Liquid Cargoes Used In This Table:

Cat—Pollution category.

NF—Non-flammable (flash point greater than 60 degrees C (140 degrees F) cc).

n.o.s.—Not otherwise specified.

ST—Ship type.

\*—From the March 2012 Annex to the 2007 IBC Code.



Dated: August 6, 2013.

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