



**9110-04-P**

**DEPARTMENT OF HOMELAND SECURITY**

**Coast Guard**

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

**[Docket No. USCG-2013-0423]**

**RIN 1625-AB94**

**2013 Liquid Chemical Categorization Updates**

**AGENCY:** Coast Guard, DHS.

**ACTION:** Final rule.

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**SUMMARY:** The Coast Guard is finalizing its 2013 proposal to update the Liquid Chemical Categorization tables, aligning them with the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk and the International Maritime Organization’s Marine Environment Protection Committee circulars from December 2012 and 2013. This final rule corrects errors in our interim rule of August 16, 2013, and follows our supplemental notice of proposed rulemaking of October 22, 2015. The updated tables provide a list of liquid hazardous materials and liquefied and compressed gases approved for international and domestic maritime transportation, and indicate how each substance is categorized by its pollution potential, safe carriage requirements, chemical flammability, combustibility, and compatibility with other substances. This rule imposes no cost to chemical shippers and vessel owners.

**DATES:** This final rule is effective [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may view comments identified by docket number USCG-2013-0423 using the Federal eRulemaking Portal at <https://www.regulations.gov>.

**FOR FURTHER INFORMATION CONTACT:** For information about this document call or email LT Jake Lobb, Coast Guard; telephone (202) 372-1428, email [Jake.R.Lobb2@uscg.mil](mailto:Jake.R.Lobb2@uscg.mil), or Dr. Raghunath Halder, Coast Guard; telephone (202) 372-1422, email [Raghunath.Halder@uscg.mil](mailto:Raghunath.Halder@uscg.mil).

**SUPPLEMENTARY INFORMATION:**

**Table of Contents for Preamble**

- I. Abbreviations
- II. Basis and Purpose
- III. Regulatory History
- IV. Discussion of the Rule
- V. Discussion of Comments and Changes
- VI. Regulatory Analyses
  - A. Regulatory Planning and Review
  - B. Small Entities
  - C. Assistance for Small Entities
  - D. Collection of Information
  - E. Federalism
  - F. Unfunded Mandates
  - G. Taking of Private Property
  - H. Civil Justice Reform
  - I. Protection of Children
  - J. Indian Tribal Governments
  - K. Energy Effects
  - L. Technical Standards
  - M. Environment

**I. Abbreviations**

CFR	Code of Federal Regulations
DHS	Department of Homeland Security
FR	<b>Federal Register</b>
IBC Code	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
IMO	International Maritime Organization
LCC	Liquid Chemical Categorization
MARPOL	International Convention for the Prevention of Pollution from Ships
MEPC	Marine Environment Protection Committee

OMB	Office of Management and Budget
SNPRM	Supplemental notice of proposed rulemaking
SOLAS	International Convention for the Safety of Life at Sea
§	Section
U.S.C.	United States Code

## **II. Basis and Purpose**

The legal basis for this final rule is Title 46 of the United States Code (U.S.C.) Section (§) 3703, which requires the Secretary of the Department of Homeland Security (DHS) to prescribe regulations relating to the operation of vessels that carry oil or hazardous material in bulk as cargo or cargo residue, 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, or “MARPOL”), 46 U.S.C. 2103 (general merchant marine regulatory authority), and 46 U.S.C. 3306 (regulations for the safety of individuals and property on inspected vessels). The Secretary delegated the authority to carry out the provisions of this section to the Coast Guard, in accordance with DHS Delegation No. 0170.1(II)(77) and (92).

The purpose of this final rule is to revise and update the Liquid Chemical Categorization (LCC) tables that list the liquid hazardous materials and liquefied and compressed gases that have been approved for international and domestic maritime transportation in bulk. The tables also indicate how each substance is categorized by its pollution potential, safe carriage requirements, chemical flammability, combustibility, and chemical compatibility with other substances.

This final rule applies to the carriage of cargos from vessel populations described in 46 CFR 30.01-5, 150.110 (with exceptions described in 46 U.S.C. 3702), 153.1, and

154.5. All U.S. and foreign-flagged tank vessels are included, unless exempted by 46 CFR 30.01-5. Also included are self-propelled bulk cargo carrying oceangoing/non-oceangoing U.S.-flag and oceangoing foreign-flag vessels when in U.S. waters. Foreign tank vessels are exempt from this regulation when on innocent passage through U.S. waters.

### **III. Regulatory History**

The Coast Guard published an interim rule on this topic in 2013.<sup>1</sup> Acknowledging public comments that brought to light certain errors in the interim rule, we delayed the interim rule's effective date of September 16, 2013 three times.<sup>2</sup> We proposed corrections to these errors in a supplemental notice of proposed rulemaking (SNPRM) published on October 22, 2015.<sup>3</sup> Because of the amount of time that had passed since the interim rule was published, in addition to correcting errors in the tables, the SNPRM also proposed to align the interim rule's LCC tables with the International Maritime Organization's (IMO) Marine Environment Protection Committee (MEPC) December 2013 Circular. We published the SNPRM, rather than proceeding directly from the 2013 interim rule to this final rule, to allow the public to review the additional entries and, if necessary, suggest corrections.

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<sup>1</sup> *2012 Liquid Chemical Categorization Updates*; Interim Rule, Volume 78 of the **Federal Register** (FR) 50147 (August 16, 2013). Because the interim rule contained information updated only through December 2012, it was titled "2012 Liquid Chemical Categorization Updates." On October 22, 2015, we published an SNPRM titled "2013 Liquid Chemical Categorization Updates," because it had been updated as of the IMO's MEPC December 2013 Circular. The interim rule, the SNPRM, and this final rule share the same docket number.

<sup>2</sup> See 78 FR 56837 (September 16, 2013; delayed until January 16, 2014); 79 FR 2106 (January 13, 2014; delayed until January 16, 2015); 79 FR 68131 (November 14, 2014; delayed until January 16, 2017).

<sup>3</sup> 80 FR 64191 (October 22, 2015).

#### **IV. Discussion of the Rule**

Coast Guard regulations in title 46 Code of Federal Regulations (CFR), chapter I, subchapter D (Tank Vessels, parts 30 through 39) and subchapter O (Certain Bulk Dangerous Cargoes, parts 150 through 155) contain requirements for ensuring safe international and domestic maritime carriage of certain bulk liquid cargoes. The tables in subchapters D and O (collectively referred to as “LCC tables”) list the cargoes for maritime carriage that have been approved by the Coast Guard. The LCC tables also categorize the pollution-hazard risk for each cargo. The Coast Guard may approve carriage of unlisted cargoes, or carriage under conditions other than those listed in the tables, through individual letters of approval.<sup>4</sup>

As we described in detail in our interim rule and the SNPRM, the LCC tables contain categorization information based on assessments by the Coast Guard and IMO, and on international tripartite agreements that categorize the pollution-hazard risk, flammability, and combustibility of each cargo in accordance with the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code).<sup>5</sup> IMO conducts its own multi-year review and assessment of the information contained in the tripartite agreements, and, following its review, either validates or modifies them. These LCC tables reflect modifications resulting from the IMO’s 2013 review, as described below.

Each December, the IMO’s MEPC releases an annual circular that lists cargoes for which it has completed a multi-year review. A cargo is listed in the circular if a

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<sup>4</sup> See, for example, 46 CFR 150.160 and 151.01-15.

<sup>5</sup> The IBC Code contains international standards for the safe maritime bulk transportation of dangerous and noxious liquid chemicals in accordance with the International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL) and the International Convention for the Safety of Life at Sea (SOLAS). For a discussion of tripartite agreements, see page 50149 of the interim rule (78 FR 50147, 50149).

tripartite agreement approves it for international bulk maritime transportation and the MEPC validates the approval. The IBC Code is periodically revised by state parties to the Code to include the cargoes listed in the MEPC annual circulars as of the last edition of the Code. The IBC Code was last comprehensively revised in 2007. In that revision, the pollution categories used to indicate a cargo's relative pollution-hazard risk—A, B, C, and D—were replaced by categories X, Y, Z, and OS (for “other substance,” considered to pose no risk).<sup>6</sup> The LCC tables in this final rule reflect the 2007 revisions to the IBC Code.

In March 2012, the IMO published an annex to the 2007 IBC Code, which listed additional cargoes and their pollution categorizations. This additional information is also reflected in the LCC tables in this final rule.

Until we published the 2013 interim rule, the LCC tables in subchapter D and subchapter O had gone unamended for several years and contained pre-2007 IBC Code provisions. They also did not reflect carriage allowed by individual approvals. The interim rule updated the following tables:

- Table 30.25-1 in subchapter D;
- Table I to part 150 in subchapter O;
- Table II to part 150 in subchapter O;
- Appendix I to part 150; and

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<sup>6</sup> See MARPOL, Annex II, Chapter 2, Regulation 6. With respect to the discharge of a cargo into the sea from tank cleaning or deballasting operations and the resulting hazard to marine resources or human health, the new categories indicate:

- X = Major hazard justifying prohibition of the discharge;
- Y = Hazard justifying a limitation on the quality and quantity of the discharge;
- Z = Minor hazard justifying less stringent restrictions on the quality and quantity of the discharge;
- and
- OS = No harm that justifies special discharge requirements.

- Table 2 to part 153 in subchapter O.

The 2015 SNPRM proposed updating these tables to be current with the December 2013 MEPC circular. This final rule adopts the interim rule with the changes proposed in the SNPRM, including corrections to the tables published in the interim rule. Minor modifications were also made in response to comments received on the SNPRM, as discussed below, and to harmonize chemical names and categories within the tables. We also reinstated chemicals that had been listed in previous editions of the CFR but were inadvertently omitted from the tables in the SNPRM. Vessels continue to carry these substances in the manner described in this rule, and reinstating these substances creates no change to current practice. The tables in their entirety are available in the docket where indicated under the **ADDRESSES** portion of this preamble.

## **V. Discussion of Comments and Changes**

Our 2013 interim rule prompted comments from two individuals and four industry representatives, one of whom made multiple submissions. Those comments were fully discussed in the 2015 SNPRM.<sup>7</sup>

The SNPRM prompted comments from the American Chemistry Council (a trade group) and two chemical companies. One of the companies asked us to add a substance to the tables, Alkanes (C10-C26), linear and branched (flash point  $\leq 60$  °C), and we have added this substance to our tables. This company also corrected our “group” assignments for 11 substances and corrected two misspellings, and we have accepted those corrections. In addition, that company pointed to the need to spell out an abbreviation used in one of the LCC tables and asked us to delete five trade names for substances,

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<sup>7</sup> 80 FR 64192 at 64193 (col. 3) and 64194.

which we have done. The other company asked us to accept variant spellings for the same substance, (for example “aluminium” for “aluminum”) and to correct the spelling of one of the substances. We have done so in this final rule.

Both companies asked us to list substances that had been approved by the IMO after 2013. We did not list these substances in this final rule because the scope of the rule is limited to IMO actions through its 2013 MEPC annual circular. For the same reason, we cannot act on the American Chemistry Council’s request to list 1-dodecene as a unique substance. These substances will be considered for inclusion in a future update to the LCC tables.

In addition to the comments discussed above, the Coast Guard received one late comment from an individual expressing general support for the rule.

## **VI. Regulatory Analyses**

We developed this rule after considering numerous statutes and Executive orders related to rulemaking. Below we summarize our analyses based on these statutes or Executive orders.

### *A. Regulatory Planning and Review*

Executive Orders 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. Executive Order

13771 (Reducing Regulation and Controlling Regulatory Costs) directs agencies to reduce regulation and control regulatory costs and provides that “for every one new regulation issued, at least two prior regulations be identified for elimination, and that the cost of planned regulations be prudently managed and controlled through a budgeting process.”

The Office of Management and Budget (OMB) has not designated this rule a significant regulatory action under section 3(f) of Executive Order 12866. Accordingly, OMB has not reviewed it. Because this rule is not a significant regulatory action, this rule is exempt from the requirements of Executive Order 13771. *See* the OMB Memorandum titled “Guidance Implementing Executive Order 13771, titled ‘Reducing Regulation and Controlling Regulatory Costs’” (April 5, 2017). A regulatory analysis follows.

#### ***Affected Population***

This final rule updates and revises the LCC tables that list the name, pollution potential, safe carriage requirements, chemical flammability, combustibility, and compatibility with other substances of each liquid chemical cargo that has been categorized and approved for maritime transportation in bulk by IMO and the Coast Guard. This final rule provides updated information about cargoes that are currently approved for maritime transportation in bulk, the cargo’s pollution categorization, and minimum transportation safety requirements. This rule applies to the carriage of the subject cargoes from vessel populations described in 46 CFR 30.01-5, 150.110 (with exceptions described in 46 U.S.C 3702), 153.1, and 154.5. All U.S. and foreign flagged tank vessels are included, unless exempted by 46 CFR 30.01-5. Also included are self-

propelled bulk cargo carrying oceangoing/non-oceangoing U.S.-flag and oceangoing foreign-flag vessels when in U.S. waters. Foreign tank vessels are exempt from this regulation when on innocent passage through U.S. waters.

### ***Costs***

This final rule updates the LCC tables that list the name, pollution potential, safe carriage requirements, chemical flammability, combustibility, and compatibility with other substances of each liquid chemical cargo that has already been categorized and approved by the Coast Guard and the IMO for maritime transportation in bulk, either permanently, or on a provisional basis. This final rule updates and revises the LCC tables to reflect existing international agreements regarding liquid chemical cargoes approved for bulk maritime transportation and their categorizations. As such, the rule does not change the established shipping requirements, and imposes no private-sector costs to chemical shippers and vessel owners. No additional labor nor equipment will be required because of this rule. No commenter challenged the “no cost to industry” assessment by the Coast Guard in the SNPRM’s regulatory analysis.

There is no cost to Coast Guard, as the updates are included in this rulemaking.

This final rule also corrects errors and omissions in the tables that were included in the interim rule, and updates the LCC tables to be current through the IMO MEPC Circular of December 2013. The rule incorporates the Coast Guard’s compatibility categorizations, as well as chemical cargoes and categorizations listed in the 2013 MEPC circular.

### ***Benefits***

The primary benefit of this final rule is that it conforms regulatory language to practices currently allowed by the Coast Guard, either through individual letters of approval or the IBC Code. We expect the rule to result in improved service to the public through improved clarity and transparency. Public comments reflect that this rulemaking will provide benefits for the public and private sector by bringing more clarity and transparency to the maritime transportation of hazardous materials. Thus, this final rule is codifying existing practices which will decrease confusion as to what are the regulatory requirements in the LCC tables.

#### *B. Small Entities*

Under the Regulatory Flexibility Act, 5 U.S.C. 601-612, we have considered whether this rule will 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. There are no small shippers engaged in the transport of the LCC chemicals. Further, there are no private industry costs incurred. Consequently, the rule is estimated to have no incremental impact on the regulated public.

The Coast Guard certified in the SNPRM under 5 U.S.C. 605(b) that this rule will not 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, Public Law 104-121, we offer to assist small entities in understanding this rule so that they can better evaluate its effects on them and participate in the rulemaking. The

Coast Guard will not retaliate against small entities that question or complain about this rule or any policy or action of the Coast Guard.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency's responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1-888-REG-FAIR (1-888-734-3247).

#### *D. Collection of Information*

This rule calls for no new or modified collection of information under the Paperwork Reduction Act of 1995, 44 U.S.C. 3501-3520. It simply updates and revises the LCC tables that list cargoes that have been approved and categorized for bulk maritime transportation, and does not collect any information from the public.

#### *E. Federalism*

A rule has implications for federalism under Executive Order 13132 (Federalism) if it has a substantial direct effect on 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 rule under Executive Order 13132 and have determined that it is consistent with the fundamental federalism principles and preemption requirements described in Executive Order 13132. 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 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 the field foreclosed from regulation by the States. *See* the Supreme Court's decision in *United States v. Locke* and *Intertanko v. Locke*, 529 U.S. 89, 120 S.Ct. 1135 (2000). This final rule amends existing regulations for inspected tank vessels carrying certain bulk dangerous cargoes, which fall within the categories enumerated in 46 U.S.C. section 3703, which themselves 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 Executive Order 13132.

*F. Unfunded Mandates*

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. Although this rule will not result in such expenditure, we do discuss the effects of this rule elsewhere in this preamble.

*G. Taking of Private Property*

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

*H. Civil Justice Reform*

This rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive

Order 12988 (Civil Justice Reform) to minimize litigation, eliminate ambiguity, and reduce burden.

*I. Protection of Children*

We have analyzed this rule under Executive Order 13045 (Protection of Children from Environmental Health Risks and Safety Risks). This rule is not an economically significant rule and will not create an environmental risk to health or risk to safety that might disproportionately affect children.

*J. Indian Tribal Governments*

This final rule does not have tribal implications under Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments), because it will 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 rule under Executive Order 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 order because it is not a “significant regulatory action” under Executive Order 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

*L. Technical Standards*

The National Technology Transfer and Advancement Act, codified as a note to 15 U.S.C. 272, directs agencies to use voluntary consensus standards in their regulatory activities unless the agency provides Congress, through OMB, with an explanation of

why using these standards will 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 rule does not use technical standards. It is based on international standards that were developed using consensus standards development processes.

*M. Environment*

We have analyzed this rule under Department of Homeland Security Management Directive 023-01, Rev. I, associated implementing instructions, and Environmental Planning COMDTINST 5090.1 (series), which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4370f), and have made a 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 final Record of Environmental Consideration supporting this determination is available in the docket. For instructions on locating the docket, see the **ADDRESSES** section of this preamble. This rule involves administrative updates of existing chemical transport regulations and updates relating to the chemical properties of liquid chemical cargoes approved for maritime transportation in bulk. The updates incorporate changes to how approved cargoes are categorized by their chemical properties. This rule is categorically excluded under paragraphs L52, L54, and L57 under Appendix A, Table 1 of DHS Instruction Manual 023-01-001-01, Rev. 01. Paragraph L52 relates to “regulations concerning vessel operation safety standards ... equipment approval, and/or equipment carriage

requirements ... and visual distress signals.” Paragraph L54 pertains to “regulations which are editorial or procedural, such as those updating addresses or establishing application procedures.” Paragraph L57 involves “regulations concerning manning, documentation, admeasurement, inspection, and equipping of vessels.”

### **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 153

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

For the reasons discussed in the preamble, the Coast Guard adopts the interim rule published at 78 FR 50152 on August 16, 2013, amending 46 CFR parts 30, 150, and 153, as final with the following changes:

### **PART 30—GENERAL PROVISIONS**

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

**Authority:** 46 U.S.C. 2103, 3306, 3703, Department of Homeland Security Delegation No. 0170.1 (II)(92)(a), (92)(b).

2. In § 30.25-1:

a. Revise paragraphs (d) introductory text and (d)(2) and (3); and

b. Amend Table 30.25-1 by:

i. Revising the bracketed NOTES paragraph following the table heading;

ii. Removing the entries for “Alkyl(C8-C9) phenylamine in aromatic solvents\*”,  
“*Diethylene glycol ethyle ether acetate, see Poly(2-8)alkylene glycol monoalkyl(C1-C6)*  
ether acetate”, and “Oil, edible: Poppy seed”;

iii. Adding in alphabetical order the entries marked “[ADD]” and revising the  
entries marked “[REVISE]”; and

iv. Revising the the notes at the end of the table.

The revisions and additions read as follows:

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

\* \* \* \* \*

(d) Any mixture containing one or more cargoes 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—

\* \* \* \* \*

(2) Under part 153 if the vessel is regulated under that part; or alternatively under  
33 CFR part 151 if the cargo is listed in 33 CFR 151.49; or

(3) Under 33 CFR part 151 if the cargo is listed in 33 CFR 151.47.

**Table 30.25–1 – List of Flammable and Combustible Bulk Liquid Cargoes**

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

Cargo Name	IMO Annex II Pollution Category
[REVISE]	
<b>Acetochlor</b>	<b>X</b>
* * * * *	
[ADD]	
Acrylic acid/ethenesulphonic acid copolymer with phosphonate groups, sodium salt solution	Z
* * * * *	
[REVISE]	
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
<i>Alcohol (C12-C15) poly( . . . ) ethoxylates, see Alcohol (C12-C16) poly( . . . ) ethoxylates</i>	
Alcohol (C12–C16) poly(1-6) ethoxylates	Y
Alcohol (C12–C16) poly(7-19) ethoxylates	Y
Alcohol (C12–C16) poly(20+) ethoxylates	Y
* * * * *	
<b>Alkenyl (C11+) amide</b>	<b>X</b>
Alkenyl (C8+) amine, Alkenyl (C12+) acid ester mixture	#
[ADD]	
Alkenyl (C16-C20) succinic anhydride	Z
[REVISE]	
<b>Alkyl acrylate-Vinylpyridine copolymer in toluene</b>	<b>Y</b>
<b>Alkylbenzene, Alkylindane, Alkylindene mixture (each C12-C17)</b>	<b>Z</b>
<b>Alkyl (C3-C4) benzenes</b>	<b>Y</b>
<b>Alkyl (C5-C8) benzenes</b>	<b>X</b>
Alkyl (C9+) benzenes	Y
<b>Alkyl (C11-C17) benzene sulfonic (alternately sulphonic) acid</b>	<b>Y</b>
Alkylbenzene sulfonic (alternately sulphonic) acid (4% or less)	#

<b>Alkyl dithiocarbamate (C19-C35)</b>	<b>Y</b>
* * * * *	
Alkyl (C7–C11) phenol poly(4-12) ethoxylate	Y
<i>Alkyl phenol sulfide</i> (alternately <i>sulphide</i> ) (C8–C40), <i>see</i> Alkyl (C8–C40) phenol sulfide (alternately sulphide)	
Alkyl (C8–C40) phenol sulfide (alternately sulphide)	Z
<b>Alkyl (C8-C9) phenylamine in aromatic solvents</b>	<b>Y</b>
Alkyl (C9–C15) phenyl propoxylate	Z
<b>Alkyl (C8-C10) polyglucoside solution (65% or less)</b>	<b>Y</b>
<b>Alkyl (C12-C14) polyglucoside solution (55% or less)</b>	<b>Y</b>
<b>Alkyl (C8-C10)/(C12-C14):(40% or less/60% or more) polyglucoside solution (55% or less)</b>	<b>Y</b>
<b>Alkyl (C8-C10)/(C12-C14):(60% or more/40% or less) polyglucoside solution (55% or less)</b>	<b>Y</b>
<b>Alkyl (C8-C10)/(C12-C14):(50%/50%) polyglucoside solution (55% or less)</b>	<b>Y</b>
<b>Alkyl (C10-C20, saturated and unsaturated) phosphite</b>	<b>Y</b>
<i>n</i> -Alkyl phthalates, <i>see</i> individual phthalates	
Alkyl sulfonic (alternately sulphonic) acid ester of phenol	Y
[ADD]	
<b>Aluminum (alternately, Aluminium) hydroxide, sodium</b>	<b>Y</b>
* * * * *	
[REVISE]	
<b>2-Amino-2-methyl-1-propanol</b>	<b>Z</b>
* * * * *	
<b>tert-Amyl ethyl ether</b>	<b>Z</b>
* * * * *	
<i>Amyl methyl ketone</i> , <i>see</i> Methyl amyl ketone	.....
<i>Amylene</i> , <i>see</i> Pentene (all isomers)	.....
* * * * *	
<b>Aviation alkylates (C8 paraffins and isoparaffins BPT 95 to 120 °C)</b>	<b>X</b>
[ADD]	
<b>Barium long-chain (C11-C50) alkaryl sulfonate</b>	<b>Y</b>
[REVISE]	
Barium long-chain alkyl (C8–C14) phenate sulfide (alternately sulphide)	#
* * * * *	

<i>Behenyl alcohol, see Alcohols (C13+)</i>	
* * * * *	
<b>Benzyl acetate</b>	<b>Y</b>
* * * * *	
[ADD]	
<b>Bis(2-ethylhexyl) terephthalate</b>	<b>Y</b>
* * * * *	
Butane	LFG
[REVISE]	
<i>Butene, see Butylenes (all isomers)</i>	
* * * * *	
[ADD]	
<b>2-Butoxyethanol (58%)/Hyperbranched polyesteramide (42%) (mixture)</b>	<b>Y</b>
* * * * *	
[REVISE]	
<i>Butylbenzene (all isomers), see Alkyl (C3-C4) benzenes</i>	.....
* * * * *	
<b>Butyl butyrate (all isomers)</b>	<b>Y</b>
[ADD]	
Butylene	LFG
* * * * *	
[REVISE]	
<i>1,3-Butylene glycol, see Butylene glycol</i>	
<i>iso-Butyl formate, see Isobutyl formate</i>	
n-Butyl formate	#
* * * * *	
Calcium alkyl (C9) phenol sulfide (alternately sulphide), polyolefin phosphorosulfide (alternately phosphorosulphide) mixture	#
<i>Calcium alkyl salicylate, see Calcium long-chain alkyl salicylate (C13+)</i>	
Calcium long-chain alkaryl sulfonate (alternately sulphonate) (C11–C50)	#
<i>Calcium long-chain alkyl phenate (C8-C40), see Calcium long-chain alkyl (C5-C10) phenate or Calcium long-chain alkyl (C11-C40) phenate</i>	
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
[ADD]	
<b>Camelina oil</b>	<b>Y</b>
[REVISE]	
<i>Candelilla wax, see Waxes: Candelilla</i>	
* * * * *	
<b>epsilon-Caprolactam (molten or aqueous solutions)</b>	<b>Z</b>
<i>Carnauba wax, see Waxes: Carnauba</i>	
<i>Cetyl alcohol (Hexadecanol), see Alcohols (C13+)</i>	
<i>Cetyl/Stearyl alcohol, see Alcohols (C13+)</i>	
<b>Chlorinated paraffins (C10-C13)</b>	<b>X</b>
<b>1-(4-Chlorophenyl)-4,4-dimethyl-pentan-3-one</b>	<b>Y</b>
<b>Citric acid (70% or less)</b>	<b>Z</b>
* * * * *	
<b>Coconut oil fatty acid methyl ester</b>	<b>Y</b>
* * * * *	
<i>Cottonseed, fatty acid, see Cottonseed oil, fatty acid</i>	
Cottonseed oil, fatty acid	#
* * * * *	
<i>Cumene, see Alkyl (C3-C4) benzenes</i>	
<b>Cycloheptane</b>	<b>X</b>
* * * * *	
<b>Cyclohexyl acetate</b>	<b>Y</b>
1,3-Cyclopentadiene dimer (molten)	Y
<b>Cyclopentane</b>	<b>Y</b>
<b>Cyclopentene</b>	<b>Y</b>
* * * * *	
Decahydronaphthalene	Y
<i>iso-Decaldehyde, see Isodecaldehyde</i>	
n-Decaldehyde	#
<i>Decane, see n-Alkanes (C10+)</i>	
<b>Decanoic acid</b>	<b>X</b>

* * * * *	
<i>n-Decylbenzene, see Alkyl (C9+) benzenes</i>	
<i>Detergent alkylate, see Alkyl (C9+) benzenes</i>	
* * * * *	
<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>	
* * * * *	
<b>Dibutyl hydrogen phosphonate</b>	<b>Y</b>
<b>2,6-Di-tert-butylphenol</b>	<b>X</b>
<b>Dibutyl phthalate</b>	<b>X</b>
* * * * *	
<b>Dibutyl terephthalate</b>	<b>Y</b>
* * * * *	
<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>	
* * * * *	
<i>Diethylene glycol ethyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>	
[ADD]	
<i>Di+, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate</i>	
[REVISE]	
<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>	
* * * * *	
<i>Diethylene glycol propyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>	

* * * * *	
<b>Diglycidyl ether of bisphenol F</b>	<b>Y</b>
<i>Diheptyl phthalate, see Dialkyl (C7–C13) phthalates</i>	
<b>Di-n-hexyl adipate</b>	<b>X</b>
* * * * *	
<i>Diisononyl phthalate, see Dialkyl (C7-C13) phthalates</i>	
* * * * *	
<b>Dimethyl octanoic acid</b>	<b>Y</b>
* * * * *	
<i>Dinonyl phthalate, see Dialkyl (C7–C13) phthalates</i>	
<i>Diocetyl phthalate, see Dialkyl (C7–C13) phthalates</i>	
* * * * *	
<b>Diphenylamine (molten)</b>	<b>Y</b>
<b>Diphenylamines, alkylated</b>	<b>Y</b>
* * * * *	
<b>Diphenylol propane-epichlorohydrin resins</b>	<b>X</b>
* * * * *	
<i>Dipropylene glycol butyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>	
* * * * *	
<i>Dipropylene glycol methyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>	
<b>Dithiocarbamate ester (C7-C35)</b>	<b>X</b>
* * * * *	
<i>Dodecanol (all isomers), see Dodecyl alcohol (all isomers)</i>	
* * * * *	
<i>Dodecyl benzene, see Alkyl (C9+) benzenes</i>	
Dodecyl hydroxypropyl sulfide (alternately sulphide)	<b>X</b>
* * * * *	
<b>Drilling brines (containing zinc salts) (if flammable or combustible)</b>	<b>X</b>
<b>Drilling brines, including: calcium bromide solution, calcium chloride solution and sodium chloride solution (if flammable or combustible)</b>	<b>Z</b>
* * * * *	
<i>ETBE, see Ethyl tert-butyl ether</i>	
[ADD]	
Ethane	LFG

[REVISE]	
* * * * *	
<i>Ethoxylated alkyloxy alkyl amine, see Ethoxylated long-chain (C16+) alkyloxyalkylamine</i>	
[ADD]	
Ethoxylated long-chain (C16+) alkyloxyalkylamine	Y
* * * * *	
[REVISE]	
<b>S-Ethyl dipropylthiocarbamate</b>	Y
[ADD]	
Ethylene	LFG
* * * * *	
[REVISE]	
<b>Fatty acids (C16+)</b>	Y
<b>Fatty acids, essentially linear (C6-C18) 2-ethylhexyl ester</b>	Y
* * * * *	
Gas oil, low sulfur (alternately sulphur)	I
* * * * *	
Gasolines:	
† Automotive ( <i>containing not more than 4.23 grams lead per gallon</i> )	I
† Aviation ( <i>containing not more than 4.86 grams lead per gallon</i> )	I
Casinghead ( <i>natural</i> )	I
Polymer	I
† Straight run	I
* * * * *	
[ADD]	
<b>Glucitol/glycerol blend propoxylated (containing 10% or more amines)</b>	Z
* * * * *	
[REVISE]	
<b>Glycerol ethoxylated</b>	OS
* * * * *	
<b>Glycerol, propoxylated and ethoxylated</b>	Z
<b>Glycerol/sucrose blend, propoxylated and ethoxylated</b>	Z
* * * * *	
[ADD]	

<b>Grape seed oil</b>	<b>Y</b>
[REVISE]	
* * * * *	
Groundnut oil	Y
* * * * *	
<i>Heptadecane, see n-Alkanes (C10+)</i>	
* * * * *	
<i>Heptanoic acid, see n-Heptanoic acid</i>	
<b>n-Heptanoic acid</b>	<b>Z</b>
* * * * *	
<i>Hexadecanol (Cetyl alcohol), see Alcohols (C 13+)</i>	
* * * * *	
<b>1,6-Hexanediol, distillation overheads</b>	<b>Y</b>
* * * * *	
<b>Hydrogenated starch hydrolysate</b>	<b>OS</b>
* * * * *	
<i>Hydroxyl terminated polybutadiene, see Polybutadiene, hydroxyl terminated</i>	
<b>Illipe oil</b>	<b>Y</b>
<b>Isoamyl alcohol</b>	<b>Z</b>
<b>Isobutyl alcohol</b>	<b>Z</b>
<b>Isobutyl formate</b>	<b>Z</b>
<b>Isobutyl methacrylate</b>	<b>Z</b>
[ADD]	
Isodecaldehyde	#
Isophorone	Y
[REVISE]	
<b>Isopropyl acetate</b>	<b>Z</b>
<b>Isopropyl alcohol</b>	<b>Z</b>
[ADD]	
<i>Isopropylbenzene, see Alkyl (C3-C4) benzenes</i>	
[REVISE]	
Isopropylcyclohexane	@Y
<b>Jatropha oil</b>	<b>Y</b>
* * * * *	

Lard oil	#
[ADD]	
Latex (ammonia (1% or less) inhibited)	Y
[REVISE]	
<b>Latex: Carboxylated styrene-Butadiene copolymer; Styrene-Butadiene rubber</b>	<b>Z</b>
<b>Lauric acid</b>	<b>X</b>
* * * * *	
[ADD]	
Linseed oil	Y
* * * * *	
[REVISE]	
Long-chain alkaryl sulfonic (alternately sulphonic) acid (C16–C60)	Y
Long-chain alkylphenate/Phenol sulfide (alternately sulphide) mixture	Y
* * * * *	
<b>L-Lysine solution (60% or less)</b>	<b>Z</b>
Magnesium long-chain alkaryl sulfonate (alternately sulphonate) (C11–C50)	Y
Magnesium long-chain alkyl phenate sulfide (alternately sulphide) (C8–C20)	#
* * * * *	
<i>Magnesium nonyl phenol sulfide (alternately sulphide), see Magnesium long-chain alkyl phenate sulfide (alternately sulphide) (C8–C20)</i>	
[ADD]	
<b>Maleic anhydride/sodium allylsulphonate copolymer solution</b>	<b>Z</b>
[REVISE]	
<b>Mango kernel oil</b>	<b>Y</b>
* * * * *	
[ADD]	
Methane	LFG
* * * * *	
[REVISE]	
<b>N-(2-Methoxy-1-methyl ethyl)-2-ethyl-6-methylchloroacetanilide</b>	<b>X</b>
<i>Methoxy triglycol, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>	
* * * * *	
<i>Methyl butanol, see amyl alcohols</i>	
* * * * *	

<b>Methylbutynol</b>	<b>Z</b>
* * * * *	
<b>Methylcyclohexane</b>	<b>Y</b>
<b>Methylcyclopentadiene dimer</b>	<b>Y</b>
<b>Methyl 3-(3,5 di-tert-butyl-4-hydroxyphenyl)propionate crude melt</b>	<b>[Y]</b>
* * * * *	
[ADD]	
<b>Methyl formate</b>	<b>Z</b>
* * * * *	
<b>2-Methylglutaronitrile with 2-Ethylsuccinonitrile (12% or less)</b>	<b>Z</b>
* * * * *	
<b>2-Methyl-2-hydroxy-3-butyne</b>	<b>Z</b>
* * * * *	
<b>Methyl naphthalene (molten)</b>	<b>X</b>
* * * * *	
<b>2-Methylpyridine</b>	<b>Z</b>
<b>3-Methylpyridine</b>	<b>Z</b>
<b>4-Methylpyridine</b>	<b>Z</b>
* * * * *	
[REVISE]	
<b>Methyl salicylate</b>	<b>Y</b>
* * * * *	
<b>Neodecanoic acid</b>	<b>Y</b>
<b>Nitrilotriacetic acid, trisodium salt solution</b>	<b>Y</b>
[ADD]	
<b>Nitroethane</b>	<b>Y</b>
<b>Nitroethane (80%)/Nitropropane (20%)</b>	<b>Y</b>
<b>Nitroethane/1-Nitropropane (each 15% or more) mixture</b>	<b>Y</b>
Nitropropane (60%)/Nitroethane (40%) mixture	<b>Y</b>
* * * * *	
[REVISE]	
<i>Nonyl phenol sulfide</i> (alternately <i>sulphide</i> ) (90% or less), see Alkyl (C8–C40) phenol sulfide (alternately <i>sulphide</i> )	
Noxious liquid, F, (2) n.o.s. (“trade name” contains “principal components”) ST 1, Cat X	<b>X</b>

Noxious liquid, F, (4) n.o.s. (“trade name” contains “principal components”) ST 2, Cat X	X
Noxious liquid, F, (6) n.o.s. (“trade name” contains “principal components”) ST 2, Cat Y	Y
Noxious liquid, F, (8) n.o.s. (“trade name” contains “principal components”) ST 3, Cat Y	Y
Noxious liquid, F, (10) n.o.s. (“trade name” contains “principal components”) ST 3, Cat Z	Z
Noxious liquid, (11) n.o.s. (“trade name” contains “principal components”) Cat Z (if flammable or combustible)	Z
Non noxious liquid, (12) n.o.s. (“trade name” contains “principal components”) Cat OS (if flammable or combustible)	OS
* * * * *	
<i>Octadecanol (Oleyl alcohol), see Alcohols (C13+)</i>	
<i>Octadecene, see the olefin or alpha-olefin entries</i>	
* * * * *	
<b>Octamethylcyclotetrasiloxane</b>	Y
* * * * *	
<b>n-Octyl acetate</b>	Y
* * * * *	
<i>Octyl phthalate, see Dioctyl phthalate</i>	
* * * * *	
[ADD]	
<b>Olefin mixture (C7-C9) C8 rich, stabilized</b>	X
* * * * *	
[REVISE]	
<i>Oleyl alcohol (Octadecanol), see Alcohols (C13+)</i>	
[ADD]	
Olive oil	Y
[REVISE]	
<b>Orange juice (concentrated)</b>	OS
* * * * *	
<b>Palm kernel olein</b>	Y
<b>Palm kernel stearin</b>	Y
<b>Palm mid-fraction</b>	Y
[ADD]	
<b>Palm kernel fatty acid distillate</b>	Y
Palm oil	Y

[REVISE]	
Palm oil fatty acid methyl ester	Y
<b>Palm olein</b>	Y
<b>Palm stearin</b>	Y
<i>Paraffin wax, see Waxes: Paraffin</i>	
<i>n-Paraffins (C10-C20), see n-Alkanes (C10+) all isomers</i>	
[ADD]	
<b>Paraldehyde-ammonia reaction product</b>	Y
[REVISE]	
<i>Peanut oil, see Groundnut oil</i>	
* * * * *	
<i>Pentadecanol, see Alcohols (C13+)</i>	
[ADD]	
<b>1,3-Pentadiene</b>	Y
<b>1,3-Pentadiene (greater than 50%), cyclopentene and isomers, mixtures</b>	Y
* * * * *	
[REVISE]	
Phosphosulfurized (alternately Phosphosulphurized) bicyclic terpene	#
* * * * *	
<i>Pinene, see the alpha- or beta- isomers</i>	.....
* * * * *	
Pine oil	X
[ADD]	
<b>Piperazine (70% or less)</b>	Y
[REVISE]	
<b>Polyalkyl (C18-C22) acrylate in xylene</b>	Y
* * * * *	
<b>Polyalkylalkenaminesuccinimide, molybdenum oxysulfide (alternately oxysulphide)</b>	Y
<i>Polyalkylene glycol butyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>	
* * * * *	
Polyalkyl (C10-C20) methacrylate	Y
<b>Polyalkyl (C10-C18) methacrylate/Ethylene-propylene copolymer mixture</b>	Y
Polybutadiene, hydroxyl terminated	#
* * * * *	

<b>Poly(2+)cyclic aromatics</b>	<b>X</b>
* * * * *	
<b>Poly(ethylene glycol) methylbutenyl ether (molecular weight&gt;1000)</b>	<b>Z</b>
<i>Polyethylene glycol monoalkyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>	
* * * * *	
<b>Polyisobutenamine in aliphatic (C10-C14) solvent</b>	<b>Y</b>
* * * * *	
<b>Poly(4+)isobutylene (molecular weight &gt; 224)</b>	<b>X</b>
[ADD]	
<b>Polyisobutylene (molecular weight ≤ 224)</b>	<b>Y</b>
* * * * *	
<b>Polyolefin (molecular weight 300+)</b>	<b>Y</b>
* * * * *	
[REVISE]	
<i>Polyolefin amide alkeneamine (C28+), see Polyolefin amide alkeneamine (C17+)</i>	
* * * * *	
<b>Polyolefin amide alkeneamine/Molybdenum oxysulfide (alternately oxysulphide) mixture</b>	<b>#</b>
* * * * *	
<b>Polyolefinamine (C28-C250)</b>	<b>Y</b>
<b>Polyolefinamine in alkyl (C2-C4) benzenes</b>	<b>Y</b>
<b>Polyolefinamine in aromatic solvent</b>	<b>Y</b>
<b>Polyolefin aminoester salts (molecular weight 2000+)</b>	<b>Y</b>
* * * * *	
<b>Polyolefin phosphorosulfide (alternately phosphorosulphide), barium derivative (C28–C250)</b>	<b>Y</b>
* * * * *	
[ADD]	
<b>Polypropylene glycol</b>	<b>Z</b>
[REVISE]	
<i>Polypropylene glycol methyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>	
* * * * *	
[ADD]	
<b>Poppy seed oil</b>	<b>#</b>
* * * * *	
<b>Propane</b>	<b>LFG</b>

<b>2-Propene-1-aminium, N, N-dimethyl-N-2-propenyl-, chloride, homopolymer solution</b>	<b>Y</b>
<b>Propionaldehyde</b>	<b>Y</b>
* * * * *	
[REVISE]	
Propylbenzene (all isomers), <i>see</i> Alkyl(C3-C4) benzenes	
[ADD]	
<i>iso</i> -Propylbenzene, <i>see</i> Alkyl(C3-C4) benzenes	
<i>n</i> -Propylbenzene, <i>see</i> Alkyl(C3-C4) benzenes	
<i>iso</i> -Propylcyclohexane, <i>see</i> Isopropylcyclohexane	
Propylene	LFG
* * * * *	
<i>Pseudocumene</i> , <i>see</i> Trimethylbenzenes (all isomers)	
* * * * *	
Rapeseed oil	Y
<b>Rapeseed oil fatty acid methyl esters</b>	<b>Y</b>
* * * * *	
[ADD]	
Rice bran oil	Y
* * * * *	
[REVISE]	
<i>Rosin</i> , <i>see</i> Rosin oil	
Rosin oil	Y
<i>Rum</i> , <i>see</i> Alcoholic beverages, n.o.s.	
[ADD]	
Safflower oil	Y
* * * * *	
<b>Sodium bromide solution (less than 50%)</b>	<b>Y</b>
<b>Sodium carboxylate solution</b>	<b>Y</b>
* * * * *	
<b>Sodium methylate 21 to 30% in methanol</b>	<b>Y</b>
[REVISE]	
<b>Sodium thiocyanate solution (56% or less)</b>	<b>Y</b>

* * * * *	
[ADD]	
Soyabean oil	Y
[REVISE]	
Soyabean oil (epoxidized)	#
<b>Soyabean oil fatty acid methyl ester</b>	<b>Y</b>
Spindle oil	I
* * * * *	
Sulfohydrocarbon (alternately Sulphohydrocarbon) (C3–C88)	Y
Sulfohydrocarbon (alternately Sulphohydrocarbon), long-chain (C18+) alkylamine	#
Sulfolane (alternately Sulpholane)	Y
Sulfurized (alternately Sulphurized) fat (C14–C20)	Z
Sulfurized (alternately Sulphurized) polyolefinamide alkene(C28–C250) amine	Z
* * * * *	
[ADD]	
<b>Tall oil, crude</b>	<b>Y</b>
[REVISE]	
<b>Tall oil, distilled</b>	<b>Y</b>
* * * * *	
[ADD]	
<b>Tall oil pitch</b>	<b>Y</b>
<b>Tall oil soap, crude</b>	<b>Y</b>
* * * * *	
[REVISE]	
<i>Tetradecylbenzene, see Alkyl (C9+) benzenes</i>	
* * * * *	
<b>Tetraethyl silicate monomer/oligomer (20% in ethanol)</b>	<b>Z</b>
* * * * *	
<b>Tetramethylbenzene (all isomers)</b>	<b>X</b>
* * * * *	
[ADD]	
Tricresyl phosphate (less than 1% ortho isomer)	Y
[REVISE]	
<i>Tridecane, see n-Alkanes (C10+) (all isomers)</i>	

* * * * *	
<i>Tridecylbenzene, see Alkyl (C9+) benzenes</i>	
* * * * *	
<i>Triethylene glycol butyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>	
* * * * *	
<i>Triethylene glycol ethyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>	
<i>Triethylene glycol methyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>	
* * * * *	
[ADD]	
<b>Trimethylamine solution (30% or less)</b>	<b>Z</b>
* * * * *	
[REVISE]	
<b>2,2,4-Trimethyl-1,3-pentanediol-1-isobutyrate</b>	<b>Y</b>
* * * * *	
<i>Tripropylene glycol methyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>	.....
[ADD]	
<b>1,3,5-Trioxane</b>	<b>Y</b>
* * * * *	
Tung oil	Y
* * * * *	
[REVISE]	
<i>Undecylbenzene, see Alkyl (C9+) benzenes</i>	
* * * * *	
<b>Vegetable protein solution (hydrolyzed) (if flammable or combustible)</b>	<b>OS</b>
[ADD]	
<b>Vinyltoluene</b>	<b>Y</b>
* * * * *	
[REVISE]	
Waxes:	
Candelilla	Y
Carnauba	Y
Paraffin	Y
† <i>White spirit, see White spirit, low (15–20%) aromatic</i>	
* * * * *	

<i>Wine, see</i> Alcoholic beverages, n.o.s.	
[ADD]	
<b>Wood lignin with sodium acetate/oxalate</b>	<b>Z</b>
* * * * *	
[REVISE]	
<b>Xylenes/Ethylbenzene (10% or more) mixture</b>	<b>Y</b>
* * * * *	

Notes:

“#” = The noxious liquid substance 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 noxious liquid substance category has been assigned by the Coast Guard, in the absence of one assigned by the IMO. The category is based on a GESAMP Hazard Profile or, by analogy, to a closely related product having a noxious liquid substance assigned.

**Bolded** entries were added from the March 2012 Annex to the 2007 edition of the IBC Code (MEPC 63/23/Add.1), the December 2012 IMO Marine Environmental Protection Committee Circular (MEPC.2/Circ.18), or the December 2013 IMO Marine Environmental Protection Committee Circular (MEPC.2/Circ.19).

“Cat” = Pollution category.

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

“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.

“LFG” = Liquid flammable gas.

“n.o.s.” = Not otherwise specified.

“OS” = An “other substance” considered at present to pose 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, as defined in Chapter 2 of the 2016 International Bulk Chemical Code.

“X,” “Y,” and “Z” = Noxious liquid substance 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.

### **§150.120 [Amended]**

4. In §150.120, remove the text “Table I” and add, in its place, the text “Table 1”.

### **§150.130 [Amended]**

5. In §150.130, in paragraph (a) introductory text, remove the text “table I” and add, in its place, the text “Table 1”.

6. In § 150.140, revise the section heading to read as follows:

### **§ 150.140 Cargoes not listed in Table 1 or 2.**

\* \* \* \* \*

7. Amend Table I to Part 150 by:

a. Revising the table heading;

b. Removing the entries for:

- i. “Alkanes (C10-C26), linear and branched (flash point >60 °C)\*”;
- ii. “*Ammonium nitrate/Urea solution (containing less than 2% free Ammonia)*”;
- iii. “*Ethylene glycol iso-propyl ether*”;

- iv. Benzene sulfonyl chloride;
  - v. “*Glycidyl ester of tridecyl acetic acid, see Glycidyl ester of C10 triakyl acetic acid*”;
  - vi. “Noxious Liquid Substance, n.o.s. (NLS’)”;
  - vii. “ROUNDUP”;
  - viii. “Ucarsol CR Solvent 302 SG”; and
  - ix. “Urea/Ammonium nitrate solution\*”.
- c. Adding in alphabetical order the entries marked “[ADD]” and revising the entries marked “[REVISE]”; and
- d. Revising the notes at the end of the table.

The revisions and additions read as follows:

**Table 1 to Part 150 – Alphabetical List of Cargoes**

Chemical Name	Group No.	Footnote	CHRIS Code	Related CHRIS Codes
* * * * *				
<b>[REVISE]</b>				
Acetonitrile (low purity grade)	37	3	AIL	
* * * * *				
<i>Acid oil mixture from soyabean, corn (maize) and sunflower oil refining, see Oil, misc.: Acid mixture from soyabean, corn (maize), and sunflower oil refining</i>		3		AOM
* * * * *				
Acrylamide solution (50% or less)	10	3	AAM	AAO
* * * * *				
Acrylic acid/ethenesulfonic (alternately ethenesulphonic) acid copolymer with phosphonate groups, sodium salt solution	30	3	APG	
* * * * *				
Alachlor technical (90% or more)	33	3	ALH	ALI
Alcohol (C12-C13, branched and linear) poly(4-8) propoxy sulfates (alternately sulphates, sodium salt 25-30% solution	41	3	ABL	
Alcohol (C9-C11) poly(2.5-9) ethoxylates	20	3	AET	ALY/APV/APW
Alcohol (C6-C17) (secondary) poly(3-6) ethoxylates	20	3	AEA	AEB
Alcohol (C6-C17) (secondary) poly(7-12) ethoxylates	20	3	AEB	AEA
Alcohol (C12-C16) poly(1-6) ethoxylates	20	3	AED	AET/ALY/APW
Alcohol (C12-C16) poly(7-19) ethoxylates	20	3	APV	AET/ALY/APV
Alcohol (C12-C16) poly(20+) ethoxylates	20	3	APW	AET/ALY
<i>Alcohol (C12-C15) poly (. . .) ethoxylate, see Alcohol (C12-C16) poly (. . .) ethoxylate</i>				
Alcohol polyethoxylates	20			AEA/AEB/AED/AET/APV/APW
Alcohol polyethoxylates, secondary	20			AEA/AEB
Alcoholic beverages, n.o.s.	20	3	ABV	
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
Alcohols (C13+)	20		ALY	ASY/AYK
<i>Including:</i>				
<i>Cetyl alcohol (Hexadecanol)</i>	20			

<i>Oleyl alcohol (Octadecenol)</i>	20			
<i>Pentadecanol</i>	20			
<i>Tallow alcohol</i>	20			
<i>Tetradecanol</i>	20			
<i>Tridecanol</i>	20			
Alkanes (C10-C26), linear and branched (flash point >60 °C)	31	3	ABD	
Alkanes (C10-C26), linear and branched (flash point ≤ 60°C)	31	3	ABE	
Alkanes (C6-C9)	31		ALK	
<i>Including:</i>				
<i>Heptanes</i>	31			
<i>Hexanes</i>	31			
<i>Nonanes</i>	31			
<i>Octanes</i>	31			
iso- & cyclo-Alkanes (C10-C11)	31		AKI	
iso- & cyclo-Alkanes (C12+)	31		AKJ	
<b>[ADD]</b>				
n-Alkanes (C9-C11)	31	3		
<b>[REVISE]</b>				
n-Alkanes (C10+) (all isomers)	31		ALV	ALJ
<i>Including:</i>				
<i>Decanes</i>	31			
<i>Dodecanes</i>	31			
<i>Heptadecanes</i>	31			
<i>n-Paraffins (C10-C20)</i>	31		PFN	ALJ
<i>Tridecanes</i>	31			
<i>Undecanes</i>	31			
<i>Alkane (C14-C17) sulfonic (alternately sulphonic) acid, sodium salt solutions, see Sodium alkyl (C14-C17) sulfonates (alternately sulphonates) (60-65% solution)</i>	.....		AKA	SAA (AKE/SSU)
* * * * *				
Alkenoic acid, polyhydroxy ester borated	0	1, 3	AAV	
Alkenyl (C11+) amide	10		AKM	
Alkenyl (C8+) amine, Alkenyl (C12+) acid ester mixture	34		AAA	
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>	32	3		
<i>Cumene</i>	32			
<i>Propylbenzenes</i>	32			
Alkyl (C5-C8) benzenes	32		AKD.	
<i>Including:</i>				
<i>Amylbenzenes</i>	32			
<i>Heptylbenzenes</i>	32			
<i>Hexylbenzenes</i>	32			
<i>Octylbenzenes</i>	32			
Alkyl (C9+) benzenes	32		AKB	
<i>Including:</i>				
<i>Decylbenzenes</i>	32			
<i>Dodecylbenzenes</i>	32			
<i>Nonylbenzenes</i>	32			
<i>Tetradecylbenzenes</i>	32			
<i>Tetrapropylbenzenes</i>	32			
<i>Tridecylbenzenes</i>	32			
<i>Undecylbenzenes</i>	32			
Alkyl benzene distillation bottoms	0	1, 3	ABB	
Alkylbenzene mixtures (containing at least 50% of Toluene)	32	3	AZT	
Alkylbenzene, Alkylindane, Alkylindene mixture (each C12-C17)	32		AIH	
Alkyl (C11-C17) benzene sulfonic (alternately sulphonic) acid	0	1, 3	ABN	ABS/ABQ
Alkylbenzene sulfonic (alternately sulphonic) acid (less than 4%)	0	1, 2	ABQ	ABS/ABN
Alkylbenzene sulfonic (alternately sulphonic) 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 ester copolymer (C4-C20)	34		AES	AEQ
Alkyl ester copolymer in mineral oil	34		AEQ	AES
Alkyl (C7-C9) nitrates	34	2	AKN	ONE
Alkyl (C7-C11) phenol poly(4-12) ethoxylate	40		APN	NPE
Alkyl (C4-C9) phenols	21		AYI	BLT/BTP/NNP/OPH
<i>Alkyl phenol sulfide (alternately sulphide) (C8-C40), see Alkyl (C8-C40) phenol sulfide</i>	.....			AKS

Alkyl (C8-C40) phenol sulfide (alternately sulphide)	34		AKS	
Alkyl (C9-C15) phenyl propoxylate	40		AXL	
Alkyl (C8-C9) phenylamine in aromatic solvents	9		ALP	
<i>n</i> -Alkyl phthalates, see individual phthalates	.....		AYS	
Alkyl polyglucoside solution, see individual polyglucoside solutions	.....		AGD	AGL/AGM/AGN/AGO/AGP
Alkyl (C8-C10) polyglucoside solution (65% or less)	43	3	AGL	AGD/AGM/AGN/AGO/AGP
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 (C12-C14) polyglucoside solution (55% or less)	43	3	AGM	AGD/AGL/AGN/AGO/AGP
Alkyl (C12-C16) propoxyamine ethoxylates	8	3	AXE	LPE
Alkyl (C10-C20), saturated and unsaturated phosphite	34		AKL	
	* * * * *			
Alkyl sulfonic (alternately sulphonic) acid ester of phenol	34		AKH	
Alkyl toluene	32		AYL	AUS
Alkyl (C18+) toluenes	32	3	AUS	AYL
Alkyl (C18-C28) toluenesulfonic (alternately toluenesulphonic) acid	0	1, 3	AUU	
Alkyl (C18-C28) toluenesulfonic (alternately toluenesulphonic) acid, Calcium salts, borated	34	3	AUB	
Alkyl (C18-C28) toluenesulfonic (alternately toluenesulphonic) acid, Calcium salts, high overbase	33	3	AUC	
Alkyl (C18-C28) toluenesulfonic (alternately toluenesulphonic) acid, Calcium salts, low overbase	33	3	AUL	
	* * * * *			
Aluminum (alternately, Aluminium) chloride/Hydrochloric acid solution, see "Aluminum (alternately, Aluminium (chloride/Hydrogen chloride solution"	.....	1	AHS	AHG
Aluminum (alternately Aluminium) chloride/Hydrogen chloride solution	0	1, 3	AHG	AHS
Aluminum (alternately Aluminium) hydroxide/sodium hydroxide/sodium carbonate solution (40% or less)	5	3	AHN	
Aluminum sulfate (alternately Aluminium sulphate) solution	43	2	ASX	ALM

Amine C-6, morpholine process residue	9		AOI	
Aminoethyldiethanolamine/Aminoethylethanolamine solution	8		ADY	
2-(2-Aminoethoxy) ethanol	8		AEX	
Aminoethylethanolamine	8		AEE	
* * * * *				
<i>Ammonia, aqueous (28% or less Ammonia), see Ammonium hydroxide</i>	.....			AMH
Ammonium bisulfite (alternately bisulphite) solution (70% or less)	43	2	ABX	ASU
Ammonium chloride solution (less than 25%)	43	3	AIS	AMC
* * * * *				
<i>Ammonium lignosulfonate (alternately lignosulphonate) solution, see also Lignin liquor</i>	.....		ALG	LNL
Ammonium nitrate solution (45% or less)	0	1	AND	AMN/ANR/ANW
Ammonium nitrate solution (93% or less)	0	1	ANW	AMN/AND/ANR
<i>Ammonium nitrate/Urea solution (containing Ammonia), see Urea/Ammonium nitrate solution (containing 1% or more Ammonia)</i>	.....			UAS (ANU/UAT/UAV/UAV)
<i>Ammonium nitrate/Urea solution (not containing Ammonia), see Urea/Ammonium nitrate solution (containing less than 1% Ammonia)</i>	.....			UAU (ANU/UAS/UAT/UAV)
<i>Ammonium phosphate/Urea solution, see Urea/Ammonium phosphate solution</i>	.....			UAP (APP/URE)
* * * * *				
Ammonium sulfate (alternately sulphate) solution	43		ASW	AME/AMS
Ammonium sulfate (alternately sulphate) solution (20% or less)	43		AME	AMS/ASW
Ammonium sulfide (alternately sulphide) solution (45% or less)	5	3	ASS	ASF
Ammonium thiocyanate/Ammonium thiosulfate (alternately thiosulphate) solution	0	1	ACV	ACS
Ammonium thiosulfate (alternately thiosulphate) solution (60% or less)	43	3	ATV	ATF
Amyl acetate (all isomers)	34	3	AEC	IAT/AML/AAS/AYA
* * * * *				
Amyl alcohol, primary	20	3	APM	AAI/AAL/AAN/APM/IAA
n-Amyl alcohol	20	3	AAN	AAI/AAL/APM/ASE/IAA
sec-Amyl alcohol	20	3	ASE	AAI/AAL/AAN/APM/IAA
tert-Amyl alcohol	20	3	AAL	AAI/APM/ASE/IAA

tert-Amyl methyl ether	41		AYE	
<i>Amyl methyl ketone, see Methyl amyl ketone</i>	.....		AMJ	MAK (AMK)
<i>Amylene, see Pentene (all isomers)</i>	.....		AMW	PTX (AMX/AMZ/PTE)
<i>tert-Amylenes, see Pentene (all isomers)</i>	.....		AMZ	PTX (AMW)
Aniline	9		ANL	
Animal and Fish oils, n.o.s.	34		AFN	
<i>Including:</i>				
<i>Cod liver oil</i>	34			
<i>Lanolin</i>	34			
<i>Neatsfoot oil</i>	34			
<i>Pilchard oil</i>	34			
<i>Sperm oil</i>	34			
Animal and Fish acid oils and distillates, n.o.s.	34		AFA	
<i>Including:</i>				
<i>Animal acid oil</i>	34			
<i>Fish acid oil</i>	34			
<i>Lard acid oil</i>	34			
<i>Mixed acid oil</i>	34			
<i>Mixed general acid oil</i>	34			
<i>Mixed hard acid oil</i>	34			
<i>Mixed soft acid oil</i>	34			
<i>Anthracene oil (Coal tar fraction), see Coal tar</i>	.....		AHO	COR
	* * * * *			
Argon, liquefied	0	1	ARG	
Aryl polyolefin (C11-C50)	30		AYF	
	* * * * *			
Aviation alkylates (C8 paraffins and isoparaffins BPT 95-120 °C)	33	3	AVA	GAK/GAV
Barium long-chain (C11-C50) alkaryl sulfonate (alternately sulphonate)	34		BCA	
Barium long-chain alkyl (C8-C14) phenate sulfide (alternately sulphide)	34		BCH	
	* * * * *			
Benzene hydrocarbon mixtures (containing Acetylenes) (having 10% Benzene or more)	32		BHA	BHB/BNZ/PYG
Benzene/Toluene/Xylene mixtures (having 10% Benzene or more)	32		BTX	BHB/BNZ/PYG/TOL/XLX/XLM/XLO/XLP
<b>[ADD]</b>				
Benzenesulfonyl (alternately Benzenesulphonyl) chloride	0	1, 2	BSC	

* * * * *				
<b>[REVISE]</b>				
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	2, 3	BIJ	BIF/BIG/BIH/BII/BIK
<b>[ADD]</b>				
Bis (2-ethylhexyl) terephthalate	34		DHH	
<b>[REVISE]</b>				
Boronated Calcium sulfonate (alternately sulphonate)	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	16		BER	
* * * * *				
<i>1,4-Butanediol, see</i> Butylene glycol	.....		BDO	BUG
<i>2-Butanone, see</i> Methyl ethyl ketone	.....	2		MEK
Butene oligomer	30		BOL	
<i>Butene, see</i> Butylenes (all isomers)	.....			BUT/IBL
<b>[ADD]</b>				
2-Butoxyethanol (58%)/Hyperbranched polyesteramide (42%) (mixture)	20			
<b>[REVISE]</b>				
Butyl acetate (all isomers)	34	3	BAX	BCN/BTA/BYA/IBA
Butyl acrylate (all isomers)	14	3	BAR	BAI/BTC
Butyl alcohol (all isomers)	20	2	BAY	BAN/BAS/BAT/IAL
<i>Butyl alcohol (iso-, n-, sec-, tert-), see</i> Butyl alcohol (all isomers)	.....	2		BAN/BAS/BAT/BAY/IAL
Butylamine (all isomers)	7	3	BTY	BAM/BTL/BUA/IAM
<i>Butylbenzene (all isomers), see</i> Alkyl (C3-C4) benzenes	.....	3	BBE	AKC
Butyl benzyl phthalate	34		BPH	

Butyl butyrate (all isomers)	34	3	BBA	BIB/BUB
Butylene glycol	20	2	BUG	BDO
1,2-Butylene oxide	16		BTO	
Butylenes (all isomers)	30		BTN	IBL
n-Butyl ether	41	3	BTE	
<b>[ADD]</b>				
<i>iso-Butyl formate, see</i> Isobutyl formate	.....	3	BFI	BFN/BFO
* * * * *				
<b>[REVISE]</b>				
<i>Butyl methacrylate, Decyl methacrylate, Cetyl-Eicosyl methacrylate mixture, see</i> Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture	.....	3		DER (BMH/BMI/BMN/CEM)
Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture	14	3	DER	BMH/BMI/BMN/CEM
<i>Butyl methyl ketone, see</i> Methyl butyl ketone	.....	2		MBJ (MBK/MIK)
<b>[ADD]</b>				
Butyl phenol, Formaldehyde resin in Xylene	32			
* * * * *				
<b>[REVISE]</b>				
Butyraldehyde (all isomers)	19	3	BAE	BAD/BTR.
* * * * *				
<b>[ADD]</b>				
C9 Resinfeed (DSM)	32	2	CNR	
<b>[REVISE]</b>				
<i>Calcium alkaryl sulfonate (alternately sulphonate) (C11-C50), see</i> Calcium long-chain alkaryl sulfonate (alternately sulphonate) (C11-C50)	.....	3	CAE	CAY
Calcium alkyl (C9) phenol sulfide (alternately sulphide), polyolefin phosphorosulfide (alternately phosphorosulphide) mixture	34		CPX	
Calcium alkyl (C10-C28) salicylate	34	3	CAJ	
<i>Calcium bromide solution, see</i> Drilling brines	.....		CBI	DRB
<i>Calcium bromide/Zinc bromide solution, see</i> Drilling brine (containing Zinc salts)	.....			DZB
* * * * *				
<i>Calcium chloride solution, see</i> Drilling brines	.....		CCS	CLC
* * * * *				
Calcium hypochlorite solution (15% or less)	5	3	CHU	CHY/CHZ
Calcium hypochlorite solution (more than 15%)	5	3	CHZ	CHU/CHY

<i>Calcium lignosulfonate</i> (alternately <i>lignosulphonate</i> ) solution, <i>see also</i> Lignin liquor	.....		CLL	LNL
Calcium long-chain alkaryl sulfonate (alternately sulphonate) (C11-C50)	34		CAY	
<i>Calcium long-chain alkyl</i> (C8-C40) phenate, <i>see</i> Calcium long-chain alkyl (C5-C10) phenate or Calcium long-chain alkyl (C11-C40) phenate	.....		CAQ	CAU/CAV (CAN/CAW)
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
Calcium long-chain alkyl phenate sulfide (alternately sulphide) (C8-C40)	34		CPI	
Calcium long-chain alkyl phenolic amine (C8-C40)	9		CPQ	
Calcium long-chain alkyl (C18-C28) salicylate	34	3	CAJ	
Calcium long-chain alkyl salicylate (C13+)	34		CAK	CAJ/CAZ
Calcium nitrate solutions (50% or less)	34	3	CNU	CNT
* * * * *				
Calcium sulfonate (alternately sulphonate)/Calcium carbonate/Hydrocarbon solvent mixture	33		CSH	
<i>Camelina oil</i> , <i>see</i> Oil, misc.: Camelina	.....	3	CEL	
* * * * *				
<i>Canola oil</i> , <i>see</i> Oil, edible: Rapeseed (low erucic acid containing less than 4% free fatty acids)	.....			ORO (ORP)
<b>[ADD]</b>				
<i>Caprolactam solution</i> , <i>see</i> epsilon-Caprolactam (molten or aqueous solutions)	.....		CLS	
<b>[REVISE]</b>				
epsilon-Caprolactam (molten or aqueous solutions)	22	3	CLU	CLS
Caramel solutions	43		CML	
Carbolic oil	21		CBO	
Carbon dioxide (high purity)	0	1	CDH	CDO/CDQ
Carbon dioxide (reclaimed quality)	0	1	CDQ	CDH/CDO
Carbon dioxide, liquefied	0	1	CDO	CDH/CDQ
Carbon disulfide (alternately disulphide)	38		CBB	
Carbon tetrachloride	36	2	CBT	CBU
<i>Cashew nut shell oil (untreated)</i> , <i>see</i> Oil, misc.: Cashew nut shell (untreated)	.....			OCN
* * * * *				
Cesium formate solution	43	3	CSM	

<i>Cetyl alcohol (Hexadecanol), see Alcohols (C13+)</i>	.....			ALY (ASY/AYL)
* * * * *				
<i>Cetyl/Stearyl alcohol, see Alcohols (C13+)</i>	.....			ALY (ASY/AYL)
* * * * *				
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 (C18+) with any level of chlorine	36		CLG	CLH/CLJ
* * * * *				
Chloroacetic acid (80% or less)	4	3	CHM	CHL/MCA
Chlorobenzene	36	2	CRB	
<i>Chlorodifluoromethane, see Monochlorodifluoromethane</i>	.....		MCF	
2-Chloro-4-ethylamino-6-isopropylamino-5-triazine solution	0	1	CET	
1-(4-Chlorophenyl)-4,4-dimethyl pentan-3-one	18	2	CDP	
2- or 3-Chloropropionic acid	4		CPM	CLA/CLP
Chloroform	36		CRF	
Chlorohydrins (crude)	17	3	CHD	
4-Chloro-2-methylphenoxyacetic acid, dimethylamine salt solution	9		CDM	
o-Chloronitrobenzene	42		CNO	CNP
Chlorosulfonic (alternately Chlorosulphonic) 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 solutions	20		CCO	
Citric acid (70% or less)	4	3	CIS	CIT
* * * * *				
<i>Coal tar distillate, see Naphtha: Coal tar solvent</i>	.....		CDL	NCT (CTU)
<i>Coal tar naphtha solvent, see Naphtha: Coal tar solvent</i>	.....			NCT (CDL/CTU)
* * * * *				
Coal tar pitch (molten)	33	3	CTP	
<b>[ADD]</b>				
Coal tar, high temperature	33		CHH	
Cobalt naphthenate in solvent naphtha	34		CNS	
<b>[REVISE]</b>				
<i>Cocoa butter, see Oil, edible: Cocoa butter</i>	.....			OCB (VEO)
<i>Coconut oil, see Oil, edible: Coconut</i>	.....			OCC (VEO)
<i>Coconut oil, fatty acid, see Oil, misc.: Coconut fatty acid</i>	.....	2		CFA

<i>Coconut oil, fatty acid methyl ester, see Oil, misc.: Coconut fatty acid methyl ester</i>	.....	3		OCM
* * * * *				
<i>Corn oil, see Oil, edible: Corn</i>	.....			OCO (VEO)
<b>[ADD]</b>				
Corn syrup	43		CSY	
<b>[REVISE]</b>				
<i>Cottonseed oil, see Oil, edible: Cottonseed</i>	.....			OCS (VEO)
<i>Cottonseed oil, fatty acid, see Oil, misc.: Cottonseed oil, fatty acid</i>	.....		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 5% or more Phenol, see Phenol</i>	.....		CFP	PHN (CFO/CRL/CRO/CRS/CSO)
<i>Cresols with less than 5% Phenol, see Cresols (all isomers)</i>	.....		CFO	CRS (CFP/CRL/CRO/CSO)
<i>Cresylate spent caustic, see Cresylic acid, sodium salt solution</i>	.....	2	CSC	CYD
<b>[ADD]</b>				
Cresylic acid	21		CRY	
<b>[REVISE]</b>				
Cresylic acid, dephenolized	21		CAD	CRY/CYN
Cresylic acid tar	21		CRX	
Cresylic acid with 5% or more phenol	21		CYN	CAD/CRY
Cresylic acid, sodium salt solution	5	2	CYD	CSC
Crotonaldehyde	19	2	CTA	
<i>Crude Isononylaldehyde, see Isononylaldehyde (crude)</i>	.....			INC
Crude Isopropanol	20			IPB (IPA/PAL)
<i>Crude Piperazine, see Piperazine (crude)</i>	.....			PZC (PPZ/PIZ)
<i>Cumene, see Alkyl(C3-C4) benzenes</i>	.....		CUM	AKD (PBY/PBZ)
* * * * *				
Cyclohexanone/Cyclohexanol mixtures	18	2	CYX	
* * * * *				
Cyclopentadiene/Styrene/Benzene mixture	30		CSB	
1,3-Cyclopentadiene dimer (molten)	30	3	CPD	DPT/DPV
Cyclopentane	31		CYP	
Cyclopentene	30		CPE	
p-Cymene	32		CMP	
* * * * *				
<b>[ADD]</b>				

<i>iso-Decaldehyde, see</i> Isodecaldehyde	.....			
n-Decaldehyde	19			
<b>[REVISE]</b>				
<i>Decane (all isomers), see</i> n-Alkanes (C10+) (all isomers)	.....		DCC	ALV (ALJ)
	* * * * *			
Decyl alcohol (all isomers)	20	2, 3	DAX	ISA/DAN
Decyl/Dodecyl/Tetradecyl alcohol mixture	20	3	DYO	DAN/DAX/DDN/ISA
<i>Decylbenzene, see</i> Alkyl (C9+) benzenes	.....		DBZ	AKB
	* * * * *			
<i>Dextrose solution, see</i> Glucose solution	.....		DTS	GLU
	* * * * *			
<i>Dialkyl (C10-C14) benzenes, see</i> Alkyl (C9+) benzenes	.....		DAB	AKB
	* * * * *			
Dialkyl (C7-C13) phthalates	34		DAH	
<i>Including:</i>				
<i>Di-(2-ethylhexyl) phthalate</i>	34			
<i>Diheptyl phthalate</i>	34			
<i>Dihexyl phthalate</i>	34			
<i>Diisooctyl phthalate</i>	34			
<i>Diisodecyl phthalate</i>	34			
<i>Diisononyl phthalate</i>	34			
<i>Dinonyl phthalate</i>	34			
<i>Dioctyl phthalate</i>	34			
<i>Ditridecyl phthalate</i>	34			
<i>Diundecyl phthalate</i>	34			
<i>Dialkyl (C9-C10) phthalates, see</i> Dialkyl (C7-C13) phthalates	.....		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	
<i>Dibutyl carbinol, see</i> Nonyl alcohol (all isomers)	.....			NNS (DBC/NNI/NNN)
Dibutyl hydrogen phosphonate	34		DHD	
Dibutyl phthalate	34		DPA	DIT
Dibutyl terephthalate	34	3	DYE	
Dibutylamine	7		DBA	
Dibutylphenols	21		DBT	
Di-tert-butylphenol	21		DBF	DBT/DBV/DBW
2,4-Di-tert-butylphenol	21		DBV	DBF/DBT/DBW
2,6-Di-tert-butylphenol	21	3	DBW	DBF/DBT/DBV

Dichlorobenzene (all isomers)	36	3	DBX	DBM/DBO/DBP
* * * * *				
1,1-Dichloroethane	36		DCH	
Dichloroethyl ether	41	3	DYR	DEE
* * * * *				
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/Triisopropanolamine salt solution	43	2	DTI	
<b>[ADD]</b>				
Dichloropropane	36		DPX	
<b>[REVISE]</b>				
1,1-Dichloropropane	36		DPB	DPC/DPL/DPP/DPX
1,2-Dichloropropane	36	2, 3	DPP	DPB/DPC/DPL/DPX
1,3-Dichloropropane	36		DPC	DPB/DPL/DPP/DPX
* * * * *				
2,2-Dichloropropionic acid	4		DCN	
Dicyclopentadiene, Resin Grade, 81-89%	30	3	DPV	CPD/DPT
<i>Dicyclopentadiene, see 1,3-Cyclopentadiene dimer (molten)</i>			DPT	CPD (DPV)
Diethanolamine	8	2	DEA	
<i>Diethanolamine salt of 2,4-Dichlorophenoxyacetic acid solution, see 2,4-Dichlorophenoxyacetic acid, Diethanolamine salt solution</i>			DZZ	DDE
* * * * *				
<i>Diethylene glycol butyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>			DME	PAG
<i>Diethylene glycol butyl ether acetate, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether acetate</i>			DEM	PAF
<b>[ADD]</b>				
Diethylene glycol dibenzoate	34		DGZ	
* * * * *				
<b>[REVISE]</b>				
<i>Diethylene glycol ethyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>			DGE	PAG
<i>Diethylene glycol ethyl ether acetate, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate</i>			DGA	PAF
<i>Diethylene glycol n-hexyl ether, see Poly(2-8)alkylene glycol</i>			DHE	PAG

monoalkyl(C1-C6) ether				
<i>Diethylene glycol methyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether</i>			DGM	PAG
<i>Diethylene glycol methyl ether acetate, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate</i>			DGR	PAF
* * * * *				
<i>Diethylene glycol propyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether</i>			DGO	PAG
* * * * *				
<i>Diethylethanolamine, see Diethylaminoethanol</i>				DAE
* * * * *				
<i>Diethyl hexanol, see Decyl alcohol (all isomers)</i>				DAX
* * * * *				
<i>Di-(2-ethylhexyl) phthalate, see Dialkyl (C7-C13) phthalate</i>			DIE	DAH
* * * * *				
Diethyl sulfate (alternately sulphate)	34		DSU	
Diglycidyl ether of Bisphenol A	16		BDE	
Diglycidyl ether of Bisphenol F	16		DGF	
<i>Diheptyl phthalate, see Dialkyl (C7-C13) phthalate</i>			DHP	DAH
* * * * *				
<i>Dihexyl phthalate, see Dialkyl (C7-C13) phthalate</i>			DHL	
<i>Diisobutyl carbinol, see Nonyl alcohol (all isomers)</i>			DBC	NNS
Diisobutyl ketone	18		DIK	
Diisobutyl phthalate	34		DIT	DPA
Diisobutylamine	7		DBU	
Diisobutylene	30		DBL	
<i>Diisodecyl phthalate, see Dialkyl (C7-C13) phthalates</i>	.....		DID	DAH
* * * * *				
<i>Diisononyl phthalate, see Dialkyl (C7-C13) phthalates</i>	.....	2	DIN	DAH
<i>Diisooctyl phthalate, see Dialkyl (C7-C13) phthalate</i>	.....		DIO	DAH/(DIE/DOP)
* * * * *				
1,4-Dihydro-9,10-dihydroxy anthracene, disodium salt solution	5		DDH	
N,N-Dimethylacetamide	10		DAC	DLS
N,N-Dimethylacetamide solution (40% or less)	10	3	DLS	DAL
* * * * *				

<i>Dimethylamine salt of 4-Chloro-2-methylphenoxyacetic acid solution, see 4-Chloro-2-methylphenoxyacetic acid, Dimethylamine salt solution</i>				CDM
<i>Dimethylamine salt of 2,4-Dichlorophenoxyacetic acid solution, see 2,4-Dichlorophenoxyacetic acid, Dimethylamine salt solution (70% or less)</i>			DAD	DDA (DSX)
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
2,6-Dimethylaniline	9		DMM	DDL
<i>Dimethylbenzene, see Xylenes</i>		2		XLX/XLM/XLO/XLP
<b>[ADD]</b>				
Dimethylcyclicsiloxane hydrolyzate	34		DXZ	
<b>[REVISE]</b>				
N,N-Dimethylcyclohexylamine	7		DXN	
Dimethyl disulfide (alternately disulphide)	0	1, 2, 3	DSK	
* * * * *				
Dimethylformamide	10	2	DMF	
<b>[ADD]</b>				
Dimethyl furan	41		DFU	
* * * * *				
Dimethyl naphthalene sulfonic (alternately sulphonic) acid, sodium salt solution	34	2	DNS	
* * * * *				
<b>[REVISE]</b>				
<i>Dimethylpolysiloxane, see Polydimethylsiloxane</i>			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 Dialkyl (C7-C13) phthalates</i>			DIF	DAH
<i>Diocetyl phthalate, see Dialkyl (C7-C13) phthalates</i>			DOP	DAH (DIE/DIO)
* * * * *				
<i>Diphenyl ether/Biphenyl ether mixture, see Diphenyl/Diphenyl ether mixture</i>				DDO
* * * * *				
Diphenylmethane diisocyanate	12	2	DPM	
<i>Diphenyl oxide, see Diphenyl ether</i>				DPE

Diphenylol propane-Epichlorohydrin resins	0	1	DPR	
Di-n-propylamine	7		DNA	DIA
* * * * *				
<i>Dipropylene glycol butyl ether, see</i> Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether			DBG	PAG
* * * * *				
<i>Dipropylene glycol methyl ether, see</i> Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether			DPY	PAG
* * * * *				
Distillates, straight run	33		DSR	
Dithiocarbamate ester (C7-C35)	34		DHO	
* * * * *				
<i>Ditridecyl phthalate, see</i> Dialkyl (C7-C13) phthalate			DTP	DAH
<i>Diundecyl phthalate, see</i> Dialkyl (C7-C13) phthalates			DUP	DAH
<i>Dodecane (all isomers), see</i> n-Alkanes (C10+) (all isomers)			DOF	ALV (ALJ/DOC)
tert-Dodecanethiol	20	2	DDL	LRM
Dodecene (all isomers)	30	3	DOZ	DDC/DOD
<i>Dodecanol (all isomers), see</i> Dodecyl alcohol (all isomers)		2	DDN	LAL
* * * * *				
Dodecyl alcohol (all isomers)	20	2	DDN	ASK/ASY/LAL
Dodecylamine/Tetradecylamine mixture	7	2	DTA	
<i>Dodecylbenzene, see</i> Alkyl (C9+) benzenes			DDB	AKB
<b>[ADD]</b>				
Dodecylbenzenesulfonic (alternately Dedecylbenzenesulphonic) acid	0	1, 2	DSA	
* * * * *				
<b>[REVISE]</b>				
Dodecyldimethylamine/Tetradecyldimethylamine mixture	7		DOT	
Dodecyl diphenyl ether disulfonate (alternately disulphonate) solution	43		DTA	
Dodecyl hydroxypropyl sulfide (alternately sulphide)	0	1	DOH	
* * * * *				
Drilling brines, including: Calcium bromide solution, Calcium chloride solution and Sodium chloride solution	43	3		DRS/DRL
* * * * *				
Epoxy resin	16		EPN	
<i>ETBE, see</i> Ethyl tert-butyl ether				EBE
* * * * *				
<i>2-Ethoxyethanol, see</i> Ethylene glycol monoalkyl ethers			EEO	EGC (EGE)

* * * * *				
<i>Ethoxylated alcohols, C11-C15, see alcohol polyethoxylates</i>				AEA/AEB/AED/AET/APV/APW/APX
Ethoxylated long-chain (C16+) alkyloxyalkylamine	8		ELA	
Ethoxylated tallow alkyl amine	7		TAY	TAG/TAR
Ethoxylated tallow alkyl amine, glycol mixture	7		TAG	TAR/TAY
Ethoxylated tallow amine (> 95%)	7	3	TAR	TAG/TAY
<i>Ethoxy triglycol, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>			ETG	PAG (ETR/TGE)
* * * * *				
Ethylamine solution (72% or less)	7	3	EAN	EAM/EAO
* * * * *				
N-Ethylbutylamine	7		EBA	
* * * * *				
S-Ethyl dipropylthiocarbamate	34	3	ECB	
Ethylene	30		ETL	
<b>[ADD]</b>				
Ethyleneamine EA 1302	7	2	EMX	
* * * * *				
<b>[REVISE]</b>				
<i>Ethylene glycol butyl ether, see Ethylene glycol monoalkyl ethers</i>			EGM	EGC
<i>Ethylene glycol tert-butyl ether, see Ethylene glycol monoalkyl ethers</i>			EGG	EGC
* * * * *				
<i>Ethylene glycol ethyl ether, see Ethyl glycol monoalkyl ethers</i>			EGE	EGC/EEO
<i>Ethylene glycol ethyl ether acetate, see 2-Ethoxyethyl acetate</i>			EGA	EEA
<i>Ethylene glycol hexyl ether, see Ethylene glycol monoalkyl ethers</i>			EGH	EGC
<i>Ethylene glycol isobutyl ether, see Ethylene glycol monoalkyl ethers</i>				EGC (EGG/EGM)
<i>Ethylene glycol isopropyl ether, see Ethylene glycol monoalkyl ethers</i>			EGI	EGC
<i>Ethylene glycol methyl butyl ether, see Ethylene glycol monoalkyl ethers</i>			EMB	EGC
<i>Ethylene glycol methyl ether, see Ethylene glycol monoalkyl ethers</i>			EME	EGC
* * * * *				
Ethylene glycol monoalkyl ethers	40	2	EGC	
<i>Including:</i>				

<i>Ethylene glycol butyl ether</i>	40			
<i>Ethylene glycol tert-butyl ether</i>	40			
<i>Ethylene glycol ethyl ether</i>	40			
<i>Ethylene glycol hexyl ether</i>	40			
<i>Ethylene glycol isobutyl ether</i>	40			
<i>Ethylene glycol isopropyl ether</i>	40			
<i>Ethylene glycol methyl ether</i>	40			
<i>Ethylene glycol methyl butyl ether</i>	40			
<i>Ethylene glycol propyl ether</i>	40			
* * * * *				
<i>Ethylene glycol propyl ether, see Ethylene glycol monoalkyl ethers</i>			EGP	EGC/EGI/EGN
<i>Ethylene glycol n-propyl ether, see Ethylene glycol monoalkyl ethers</i>			EGN	EGC (EGI/EGP)
* * * * *				
Ethylene oxide/Propylene oxide mixture with an Ethylene oxide content not more than 30% by mass	16	3	EPM	EPF
* * * * *				
<i>Ethyl ether, see Diethyl ether</i>				EET
* * * * *				
<i>2-Ethylhexaldehyde, see Octyl aldehydes</i>			EHA	OAL (OLX)
<i>2-Ethylhexanoic acid, see Octanoic acid (all isomers)</i>			EHO	OAY (OAA)
<i>2-Ethylhexanol, see Octanol</i>			EHX	OCA (OTA)
* * * * *				
2-Ethyl-2-(hydroxymethyl) propane-1,3-diol (C8-C10) ester	34		EHD	
* * * * *				
N-Ethylmethylallylamine	7		EML	
<b>[ADD]</b>				
2-Ethyl-6-methyl-N-(1'-methyl-2-methoxyethyl)aniline	9		EEM	
o-Ethyl phenol	21		EPL	
* * * * *				
<b>[REVISE]</b>				
Ethyl toluene	32		ETE	
Fatty acid methyl esters	34	3	FME	
Fatty acids (C8-C10)	34	3	FDS	
Fatty acids (C12+)	34	3	FDT	FAB/FAD/FAI/FDI
Fatty acids (saturated, C13+)	334		FAB	FAD
<i>Fatty acids (saturated, C14+), see Fatty acids (saturated, C13+)</i>			FAD	FAB

Fatty acids (C16+)	34	3	FDI	
Fatty acids, essentially linear (C6-C18) 2-ethylhexyl ester	34	2, 3	FAE	
* * * * *				
<i>Fish oil, see</i> Oil, edible: Fish		2		OFS (AFN)
* * * * *				
Fluorosilicic acid (20-30%) in water solution	1	3	FSK	FSJ/FSL/HFS
* * * * *				
Formaldehyde solutions (45% or less)	19	2, 3	FMR	FMG/FMS
* * * * *				
Formic acid (85% or less)	4	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
* * * * *				
<b>[ADD]</b>				
<i>Fuming sulfuric (alternately sulphuric) acid, see</i> Oleum		2		
* * * * *				
<b>[REVISE]</b>				
<i>Gas oil, cracked, see</i> Oil, misc.: Gas, cracked				GOC
* * * * *				
Gasolines:				
Automotive (containing not more than 4.23 grams lead per gal.)	33		GAT	
Aviation (containing not more than 4.86 grams lead per gal.)	33		GAV	AVA
Casinghead ( <i>natural</i> )	33		GCS	
Polymer	33		GPL	
Straight run	33		GSR	
<i>Gasolines: Pyrolysis (containing Benzene), see</i> Pyrolysis gasoline (containing Benzene)			GPY	PYG
Glucitol/Glycerol blend propoxylated (containing less than 10% amines)	40	3	GGA	
* * * * *				
<i>Glycerol, see</i> Glycerine		2		GCR
* * * * *				
Glycerol propoxylated	40	3	GXP	
Glycerol, propoxylated and ethoxylated	40	3	GXE	
Glycerol/Sucrose blend propoxylated and ethoxylated	40	3	GSB	
* * * * *				

Glycidyl ester of C10 trialkyl acetic acid	34		GLU	GLT
<i>Glycidyl ester of tertiary carboxylic acid, see</i> Glycidyl ester of C10 trialkyl acetic acid			GLT	GLU
<b>[ADD]</b>				
<i>Glycidyl ester of tridecyl acetic acid, see</i> Glycidyl ester of C10 trialkyl acetic acid			GLT	GLU
<b>[REVISE]</b>				
<i>Glycidyl ester of Versatic acid, see</i> Glycidyl ester of C10 trialkyl acetic acid			GLT	GLU
Glycine, sodium salt solution	7		GSS	
<i>Glycol diacetate, see</i> Ethylene glycol diacetate				EGY
Glycol mixture, crude	20		GMC	
<i>Glycol triacetate, see</i> Glyceryl triacetate				GCT
Glycolic acid solution (70% or less)	4	3	GLC	
Glyoxal solution (40% or less)	19	3	GOS	
Glyoxylic acid solution (50% or less)	4	3	GAC	
* * * * *				
<b>[ADD]</b>				
<i>Grape Seed Oil, see</i> Oil, edible: Grape seed				
<b>[REVISE]</b>				
<i>Groundnut oil, see</i> Oil, edible: Groundnut				OGN (VEO)
<b>[ADD]</b>				
<i>Hazelnut oil, see</i> Oil, edible: Hazelnut				OHN (VEO)
<b>[REVISE]</b>				
<i>Heptadecane (all isomers), see</i> n-Alkanes (C10+) (all isomers)				ALV (ALJ)
<i>Heptane (all isomers), see</i> Alkanes (C6-C9)			HMX	ALK(HPI/HPT)
* * * * *				
Heptanol (all isomers)	20	3	HTX	HTN
Heptene (all isomers)	30	2, 3	HPX	THE
* * * * *				
<i>Heptylbenzenes, see</i> Alkyl (C5-C8) benzenes				AKD
<i>Herbicide (C15-H22-NO2-Cl), see</i> Metolachlor				MCO
<i>Hexadecanol (Cetyl alcohol), see</i> Alcohols (C13+)				ALY (ASY/AYL)
* * * * *				
<i>Hexaethylene glycol, see</i> Polyethylene glycol			HMG	PEG
Hexamethylene diisocyanate	12		HMS	HDI
Hexamethylene glycol	20		HMG	HXG
Hexamethylenediamine (molten)	7	3	HME	HMD/HMC
Hexamethylenediamine adipate (50% in water)	43		HAM	HAN

Hexamethylenediamine adipate solution	43		HAN	HAM
Hexamethylenediamine solution	7		HMC	HMD/HME
Hexamethyleneimine	7		HMI	
Hexamethylenetetramine solutions	7		HTS	HMT
<i>Hexane (all isomers), see Alkanes (C6-C9)</i>		2	HXS	ALK (IHA/HXA)
1,6-Hexanediol, distillation overheads	4	2, 3	HDO	
* * * * *				
Hexene (all isomers)	30	2, 3	HEX	HXE/HXT/HXU/HXV/MPN/MTN
* * * * *				
<i>Hexylbenzenes, see Alkyl (C5-C8) benzenes</i>				AKD
<i>Hexylene glycol, see Hexamethylene glycol</i>			HXG	HMG
<i>Hog grease, see Lard</i>				LRD
* * * * *				
<i>Hydrofluorosilicic acid (25% or less), see Fluorosilicic acid (30% or less)</i>				FSJ(FSK/FSL/HFS)
bis(Hydrogenated tallow alkyl)methyl amines	7		HTA	
Hydrogen peroxide solutions (over 8% but not more than 60% by mass)	0	1, 3	HPN	HPO/HPS
Hydrogen peroxide solutions (over 60% but not more than 70% by mass)	0	1, 3	HPS	HPN/HPO
Hydrogenated starch hydrolysate	0	1, 3	HSH	
2-Hydroxyethyl acrylate	14	2	HAI	
N-(Hydroxyethyl)ethylenediamine triacetic acid, trisodium salt solution	43		HET	
<b>[ADD]</b>				
N,N-bis(2-Hydroxyethyl) oleamide	10		HOO	
* * * * *				
<b>[REVISE]</b>				
<i>Hydroxyl terminated polybutadiene, see Polybutadiene, hydroxyl terminated</i>				PHT
alpha-Hydro-omega-hydroxytetradeca(oxytetramethylene)	40		HTO	PYS/PYT
<i>Illipe oil, see Oil, edible: Illipe</i>				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
<b>[ADD]</b>				
Isodecaldehyde	19			
* * * * *				

<b>[REVISE]</b>				
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
<i>Isopropylbenzene, see</i> Alkyl (C3-C4) benzenes				AKC(CUM/PBY/PBZ)
Isopropylcyclohexane	31	3	IPX	
Isopropyl ether	41	3	IPE	PRL/PRN
<i>Jatropha oil, see</i> Oil, misc.: Jatropha	.	3		JTO
Jet fuels:			JPO	JPT/JPF/JPV
JP-4	33		JPF	
JP-5	33		JPV	
JP-8	33		JPE	
* * * * *				
<b>[ADD]</b>				
Ketone residue	18		KTR	
* * * * *				
<b>[REVISE]</b>				
Kraft pulping liquors (free alkali content 3% or more) (Black, Green, or White)	5		KPL	KBL
Lactic acid	0	1, 2	LTA	
Lactonitrile solution (80% or less)	37	3	LNI	
* * * * *				
Latex, ammonia (1% or less)-inhibited	30	3	LTX	
Latex: Carboxylated Styrene-Butadiene copolymer; Styrene-Butadiene rubber	43	3	LCC	LCB/LSB
* * * * *				
<i>Lauryl polyglucose, see</i> Alkyl (C12-C14) polyglucoside solution (55% or less)				AGM/LAP
<i>Lauryl polyglucose (50% or less), see</i> Alkyl (C12-C14) polyglucoside solution (55% or less)			LAP	AMG
* * * * *				
Ligninsulfonic (alternately Ligninsulphonic) acid, magnesium salt solution	43	3	LGM	LGA/LNL/LSL
<i>Ligninsulfonic (alternately Ligninsulphonic) acid, sodium salt solution, see</i> Lignin liquor or Sodium lignosulfonate (alternately lignosulphonate) solution			LGA	LNL or SLG

<i>d-Limonene, see Dipentene</i>				DPN
* * * * *				
<i>Linseed oil, see Oil, misc.: Linseed</i>				OLS
<i>Liquefied Natural Gas, see Methane</i>			LNG	MTH
Liquid chemical wastes	0	1, 3	LCW	
<b>[ADD]</b>				
Liquid Streptomyces solubles	43			
* * * * *				
<b>[REVISE]</b>				
Long-chain alkaryl sulfonic (alternately sulphonic) acid (C16-C60)	0	1	LCS	
* * * * *				
Long-chain alkylphenate/Phenol sulfide (alternately sulphide) mixture	21		LPS	
Long-chain alkyl (C13+) salicylic acid	4		LAS	
<b>[ADD]</b>				
Long-chain polyetheramine in alkyl (C2-C4)benzenes	7		LCE	
<b>[REVISE]</b>				
L-Lysine solution (60% or less)	43	3	LYS	
* * * * *				
Magnesium long-chain alkaryl sulfonate (alternately sulphonate) (C11-C50)	34		MAS	MSE
Magnesium long-chain alkyl phenate sulfide (alternately sulphide) (C8-C20)	34		MPS	
Magnesium long-chain alkyl salicylate (C11+)	34		MLS	
* * * * *				
<i>Magnesium nonyl phenol sulfide (alternately sulphide), see Magnesium long-chain alkyl phenate sulfide (alternately sulphide) (C8-C20)</i>				MPS
<i>Magnesium sulfonate (alternately sulphonate), see Magnesium long-chain alkaryl sulfonate (alternately sulphonate) (C11-C50)</i>			MSE	MAS
* * * * *				
<b>[ADD]</b>				
Maleic anhydride/sodium allylsulphonate copolymer solution	11			PHN (CFO/CRL/CRO/CRS/CSO)
<b>[REVISE]</b>				
Maltitol solution	0	1, 3	MTI	
<i>Mango kernel oil, see Oil, edible: Mango kernel</i>				MKO (VEO)
Mercaptobenzothiazol, sodium salt solution	5		SMB	MBT

2-Mercaptobenzothiazol (in liquid mixture)	5		BTM	SMD
Mesityl oxide	18	2	MSO	
* * * * *				
Methacrylic acid – Alkoxypoly(alkylene oxide) methacrylate copolymer, sodium salt aqueous solution (45% or less)	20	3	MAQ	
* * * * *				
<i>Methoxy triglycol, see</i> Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether	.		MTG	PAG (TGY)
* * * * *				
Methylamine solutions (42% or less)	7	3	MSZ	
Methyl amyl acetate	34		MAC	
Methyl amyl alcohol	20		MAA	MIC
* * * * *				
N-Methylaniline	9	3	MAN	
alpha-Methylbenzyl alcohol with Acetophenone (15% or less)	20	3	MBA	
* * * * *				
<i>Methyl butanol, see the</i> Amyl alcohols				AAI/AAL/AAN/APM/ASE/IAA
<i>Methyl butenes, see</i> Pentene (all isomers)				PTX (AMW/AMZ/PTE)
Methyl butenol	20		MBL	
* * * * *				
<b>[ADD]</b>				
3-Methyl butyraldehyde	19		MBR	
<b>[REVISE]</b>				
Methyl butyrate	34		MBU	
* * * * *				
Methylcyclopentadienyl manganese tricarbonyl	0	1, 3	MCT	MCW
* * * * *				
Methyl diethanolamine	8		MDE	MAB
Methyl ethyl ketone	18	2	MEK	
2-Methyl-6-ethyl aniline	9		MEN	
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
<i>Methyl isoamyl ketone, see</i> Methyl amyl ketone			MAJ	MAK
<i>Methyl isobutyl carbinol, see</i> Methyl amyl alcohol			MIC	MAA

Methyl isobutyl ketone	18		MIK	MBB/MBK
Methyl methacrylate	14		MMM	
Methylene bridged isobutylenated phenols	21		MBP	
<i>Methylene chloride, see</i> Dichloromethane				DCM
3-Methyl-3-methoxybutanol	20		MXB	
* * * * *				
Methyl naphthalene (molten)	32	3	MNA	
Methylolurea	19		MUS	
<i>2-Methyl pentane, see</i> Hexane (all isomers)				HXS (ALK/HXA/IHA/NHX)
* * * * *				
<i>2-Methyl-1-pentene, see</i> Hexene (all isomers)			MPN	HEX (HXE/HXT/HXU/HXV/MTN)
<i>4-Methyl-1-pentene, see</i> Hexene (all isomers)			MTN	HEX (HXE/HXT/HXU/HXV/MPN)
<i>Methyl tert-pentyl ether, see</i> tert-Amyl methyl ether				AYE
* * * * *				
2-Methyl-5-ethylpyridine	9		MEP	
<i>Methylpyridine, see</i> the Methylpyridines			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
* * * * *				
Microsilica slurry	43		MOS	
* * * * *				
Molybdenum polysulfide (alternately polysulphide) long-chain alkyl dithiocarbamide complex	0	1, 3	MOP	
* * * * *				
<i>Monoethylamine, see</i> Ethylamine				EAM (EAN/EAO)
<i>Monoisopropanolamine, see</i> Isopropanolamine				MPA (PLA/PLX)
<i>Monoethylamine, see</i> Ethylamine				EAM (EAN/EAO)
* * * * *				
<i>MTBE, see</i> Methyl tert-butyl ether				MBE
* * * * *				
Naphthalene (molten)	32	3	NTM	
<b>[ADD]</b>				
Naphthalene still residue	32	2	NSR	
<b>[REVISE]</b>				
Naphthalene sulfonic (alternately sulphonic) acid, sodium salt solution	34		NSB	NSA
Naphthalene sulfonic (alternately sulphonic) acid-Formaldehyde copolymer, sodium salt solution	0	1	NFS	

Naphthenic acid	4		NTI	
* * * * *				
Nitrating acid (mixture of Sulfuric (alternately Sulphuric) and Nitric acids)	0	1	NIA	
Nitric acid (70% and over)	3	2, 3	NCE	NAC/NCD
* * * * *				
<b>[ADD]</b>				
<i>Nitric Acid, fuming, see Nitric acid (70% and over)</i>		1, 2, 3		NCE
<i>Nitric Acid, red fuming, see Nitric acid (70% and over)</i>		1, 2, 3		NCE
<b>[REVISE]</b>				
Nitrilotriacetic acid, trisodium salt solution	34	3	NCA	
* * * * *				
<i>o-Nitrochlorobenzene, see o-Chloronitrobenzene</i>	.....			CNO (CNP)
* * * * *				
Nitroethane (80%)/Nitropropane (20%)	42	2, 3	NNL	NNM/NNO/NPM/NPN/NPP/NTE
* * * * *				
Nitrophenol (mixed isomers)	42		NPX	NIP/NPH
<i>o</i> -Nitrophenol (molten)	0	1, 2	NTP	NIP/NPH/NPX
Nitropropane (60%)/Nitroethane (40%) mixture	42		NNM	NNL/NNO/NPM/NPN/NPP/NTE
1-or 2-Nitropropane	42		NPM	NPN/NPP
<i>o</i> - or <i>p</i> -Nitrotoluenes	42	3	NIT	NIE/NTR/NTT
<i>Nonane (all isomers), see Alkanes (C6-C9)</i>			NAX	ALK (NAN)
* * * * *				
<i>Non-edible industrial grade palm oil, see Oil, misc.: Palm, non-edible industrial grade</i>				OPB
Nonene (all isomers)	30	2	NOO	NNE/NON/OAM/OFX/OFY
Nonyl acetate	34		NAE	
Nonyl alcohol (all isomers)	20	2	NNS	ALR/DBC/NNI/NNN
<i>Nonylbenzene, see Alkyl (C9+) benzenes</i>				AKB
* * * * *				
Nonyl phenol	21		NNP	
<i>Nonyl phenol poly(4+)ethoxylate, see Alkyl (C7-C11) phenol poly(4-12) ethoxylate</i>			NPE	APN
<i>Nonyl phenol sulfide (alternately sulphide) (90% or less) solution, see Alkyl (C8-C40) phenol sulfide (alternately sulphide)</i>				AKS (NPS)
Nonylphenol (48-62%)/Phenol (42-48%)/Dinonylphenol (1-10%) mixture	21		NYL	
<b>[ADD]</b>				

Noxious Liquid Substance, NF, (1) n.o.s. (“trade name” contains “principal components”) Cat X	0	1		
Noxious Liquid Substance, F, (2) n.o.s. (“trade name” contains “principal components”) Cat X	0	1		
Noxious Liquid Substance, NF, (3) n.o.s. (“trade name” contains “principal components”) Cat X	0	1		
Noxious Liquid Substance, F, (4) n.o.s. (“trade name” contains “principal components”) Cat X	0	1		
Noxious Liquid Substance, NF, (5) n.o.s. (“trade name” contains “principal components”) Cat Y	0	1		
Noxious Liquid Substance, F, (6) n.o.s. (“trade name” contains “principal components”) Cat Y	0	1		
Noxious Liquid Substance, NF, (7) n.o.s. (“trade name” contains “principal components”) Cat Y	0	1		
Noxious Liquid Substance, F, (8) n.o.s. (“trade name” contains “principal components”) Cat Y	0	1		
Noxious Liquid Substance, NF, (9) n.o.s. (“trade name” contains “principal components”) Cat Z	0	1		
Noxious Liquid Substance, F, (10) n.o.s. (“trade name” contains “principal components”) Cat Z	0	1		
Noxious Liquid Substance, (11) n.o.s. (“trade name” contains “principal components”) Cat Z	0	1		
Non-noxious Liquid Substance, (12) n.o.s. (“trade name” contains “principal components”) Cat OS	0	1	NOL	
<i>Nutmeg butter oil, see</i> Oil, edible: Nutmeg butter				ONB (VEO)
<b>[REVISE]</b>				
<i>1-Octadecene, see</i> the olefin or alpha-olefin entries				OAM/OFZ
<i>1-Octadecanol, see</i> Stearyl alcohol				SYL (ALY/ASY)
Octadecenoamide solution	10		ODD	
<i>Octadecenol (oleyl alcohol), see</i> Alcohols (C13+)				ALY (AYL/ASY/OYL)
Octamethylcyclotetrasiloxane	34	3	OSA	
<i>Octane (all isomers), see</i> Alkanes (C6-C9)			OAX	ALK (IOO/OAN)
Octanoic acid (all isomers)	4		OAY	OAA/EHO
	* * * * *			
<i>Octyl alcohol, see</i> Octanol (all isomers)		2		OCX (EHX/IOA/OTA)
	* * * * *			
<i>Octylbenzenes, see</i> Alkyl (C5-C8) benzenes				AKD
	* * * * *			

n-Octyl mercaptan	0		OME	
Octyl nitrates (all isomers), see Alkyl (C7-C9) nitrates		2	ONE	AKN
* * * * *				
Octyl phthalate, see Dioctyl phthalate				DAH (DIE/DIO/DLK/DOP)
Oil, edible:				
Beechnut	34		OBN	VEO
Castor	34		OCA	VEO
Cocoa butter	34		OCB	VEO
Coconut	34		OCC	VEO
Cod liver	34		OCL	AFN
Corn	34		OCO	VEO
Cotton seed	34		OCS	VEO
Fish	34	2	OFS	AFN
Grape seed	34			
Groundnut	34		OGN	VEO
Hazelnut	34		OHN	VEO
Illipe	34		ILO	VEO
Lard	34		OLD	AFN
Maize, see Oil, edible: Corn				OCO (VEO)
Mango kernel	34	3	MKO	
Nutmeg butter	34		ONB	VEO
Olive	34		OOL	VEO
Palm	34	2, 3	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	34		ORP	VEO
Rapeseed (low erucic acid containing less than 4% free fatty acids)	34	3	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
Soyabean	34	2	OSB	VEO
<i>Sunflower, see</i> Oil, edible: Sunflower seed				OSN (VEO)
Sunflower seed	34		OSN	VEO
Tucum	34		OTC	VEO
Vegetable	34		OVG	VEO
Walnut	34		OWN	VEO
* * * * *				
Oil, misc.:				
Acid mixture from soyabean, 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)	34		OCN	
Clarified	33		OCF	
Coal	33		OMC	
Coconut fatty acid	34	2	CFA	
Coconut, fatty acid methyl ester	34		OCM	
Cotton seed oil, fatty acid	34		CFY	
Crude	33		OFA	
Diesel	33		ODS	
Disulfide (alternately Disulphide)	0	1	ODI	
Gas, cracked	33		GOC	
Gas, high pour	33		OGP	
Gas, low pour	33		OGL	
Gas, low sulfur (alternately sulphur)	33		OGS	
Heartcut distillate	33		OHD	
Jatropha	34	3	JTO	
Lanolin	34		OLL	AFN
Linseed	33		OLS	
Lubricating	33	2	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
Rapeseed fatty acid methyl esters	34	3	ORP	
Residual	33		ORL	
Resin, distilled	30	3	ORR	
Road	33		ORD	
Rosin	33		ORN	
Seal	34		OSE	
Soapstock	34		OIS	
Soyabean (epoxidized)	34			OSC/EVO
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	33		OVC	
<i>Oleamide solution, see Octadecenoamide solution</i>	.....			ODD
* * * * *				
Olefin-Alkyl ester copolymer (molecular weight 2000+)	30		OCP	
Olefin mixture (C7-C9) C8 rich, stabilized	30	3	OFC	OFW/OFY/OFX
Olefin mixtures (C5-C7)	30	3	OFX	OAM/OFC/OFW/OFX/OFZ
Olefin mixtures (C5-C15)	30	3	OFY	OAM/OFC/OFW/OFX/OFZ
Olefins (C13+, all isomers)	30		OFZ	OAM/OFW
* * * * *				

Oleic acid	4		OLA	
* * * * *				
<i>Oleyl alcohol, see</i> Alcohols (C13+)			OYL	ALY (ASY)
* * * * *				
<i>Olive oil, see</i> Oil, edible: Olive				OOL (VEO)
Orange juice (concentrated)	0	1, 3	OJC	OJN
Orange juice (not concentrated)	0	1, 3	OJN	OJC
* * * * *				
<i>ORIMULSION, see</i> Asphalt emulsion				ASQ
* * * * *				
Oxygenated aliphatic hydrocarbon mixture	0	1, 3	OAH	
<i>Palm acid oil, see</i> Oil, misc.: Palm acid		3		PLM
<i>Palm fatty acid distillate, see</i> Oil, misc.: Palm fatty acid distillate		3		PFD
<i>Palm kernel acid oil, see</i> Oil, misc.: Palm kernel acid				PNO
<i>Palm kernel acid oil, methyl ester, see</i> Oil, misc.: Palm kernel acid, methyl ester				PNF
<i>Palm kernel oil, see</i> Oil, edible: Palm kernel				OPO (VEO)
<i>Palm kernel oil fatty acid distillate, see</i> Oil, misc.: Palm kernel fatty acid distillate				PNG
<i>Palm kernel olein, see</i> Oil, edible: Palm kernel olein		3		PKO (VEO)
<i>Palm kernel stearin, see</i> Oil, edible: Palm kernel stearin		3		PKS (VEO)
<i>Palm mid fraction, see</i> Oil, edible: Palm mid fraction		3		PFM (VEO)
<i>Palm oil, see</i> Oil, edible: Palm		2, 3	OPM	VEO/OPE
<i>Palm oil fatty acid methyl ester, see</i> Oil, misc.: Palm fatty acid methyl ester		3		OPE
<i>Palm olein, see</i> Oil, edible: Palm olein		3		PON (VEO)
<i>Palm stearin, see</i> Oil, edible: Palm stearin				PMS (VEO)
Parachlorobenzotrifluoride	32		PBF	
<i>Paraffin wax, see</i> Waxes: Paraffin		3		WPF
<i>n-Paraffins (C10-C20), see</i> n-Alkanes (C10+) all isomers			PFN	ALJ
* * * * *				
<b>[ADD]</b>				
<i>Peanut, see</i> Oil, edible: Peanut				OPN (VEO)
* * * * *				
Pentacosa (oxypropane-2,3-diyl)s	20		POY	
<b>[REVISE]</b>				
<i>Pentadecanol, see</i> Alcohols (C13+)	.		PDC	ALY

* * * * *				
1,3-Pentadiene (greater than 50%), Cyclopentene and isomers, mixtures	30	3	PMM	
<i>Pentaethylene glycol, see Polyethylene glycols</i>				PEG
<i>Pentaethylene glycol methyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>				PAG
* * * * *				
n-Pentanoic acid (64%)/2-Methyl butyric acid (36%) mixture	4		POJ	POC
<i>Pentasodium salt of Diethylenetriaminepentaacetic acid solution, see Diethylenetriaminepentaacetic acid, pentasodium salt solution</i>				DYS
* * * * *				
<b>[ADD]</b>				
Pentyl aldehyde	19		PYL	
* * * * *				
<b>[REVISE]</b>				
Phosphoric acid	1	2	PAC	
* * * * *				
Phosphosulfurized (alternately Phosphosulphurized) bicycle terpene	0	1	PBT	
* * * * *				
<b>[ADD]</b>				
<i>PIB, see Poly(4+)isobutylene (molecular weight &gt; 224)</i>				
* * * * *				
<b>[REVISE]</b>				
<i>Pine oil, see Oil, misc.: Pine</i>			PNL	OPI
Piperazine (70% or less)	7	3	PIZ	PPB/PPZ
Piperazine (crude)	7		PZC	PPZ/PIZ
Piperazine, 68% solution	7			
* * * * *				
Polyalkyl (C18-C22) acrylate in Xylene	14		PIX	
Polyalkylalkenaminesuccinimide, molybdenum oxysulfide (alternately oxysulphide)	0	3	PSO	
Polyalkylene glycols/Polyalkylene glycol monoalkyl ethers mixtures	40		PPX	
<i>Polyalkylene glycol butyl ether, see Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether</i>			PGB	PAG
Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether	40	2	PAG	
<i>Including:</i>				

<i>Diethylene glycol butyl ether</i>	40			
<i>Diethylene glycol ethyl ether</i>	40			
<i>Diethylene glycol n-hexyl ether</i>	40			
<i>Diethylene glycol methyl ether</i>	40			
<i>Diethylene glycol propyl ether</i>	40			
<i>Dipropylene glycol butyl ether</i>	40			
<i>Dipropylene glycol methyl ether</i>	40			
<i>Polyalkylene glycol butyl ether</i>	40			
<i>Polyethylene glycol monoalkyl ether</i>	40			
<i>Polypropylene glycol methyl ether</i>	40			
<i>Tetraethylene glycol methyl ether</i>	40			
<i>Triethylene glycol butyl ether</i>	40			
<i>Triethylene glycol ethyl ether</i>	40			
<i>Triethylene glycol methyl ether</i>	40			
<i>Tripropylene glycol methyl ether</i>	40			
Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether acetate	34		PAF	
<i>Including:</i>				
<i>Diethylene glycol butyl ether acetate</i>	34			
<i>Diethylene glycol ethyl ether acetate</i>	34			
<i>Diethylene glycol methyl ether acetate</i>	34			
Polyalkylene oxide polyol	20		PAO	
* * * * *				
Polyaluminum (alternately Polyaluminium) chloride solution	1		PLS	
* * * * *				
Polyalkyl(C10-C18) methacrylate/Ethylene-propylene copolymer mixture	14		PEM	
* * * * *				
<i>Polycarboxylic ester (C9+), see</i> Ditridecyl adipate				DTY
Poly(2+)cyclic aromatics	32		PCA	
<i>Polydimethylsiloxane, see</i> Dimethylpolysiloxane				DMP
* * * * *				
Polyether (molecular weight 1350+)	41		PYR	
* * * * *				
Poly(ethylene glycol) methylbutenyl ether (molecular weight >1000)	40		PBN	
<i>Polyethylene glycol monoalkyl ether, see</i> Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether			PEE	PAG
* * * * *				
Polyethylene polyamines (more than 50% C5-C20 Paraffin	7	2, 3	PEY	PEB

oil)				
Polyferric sulfate (alternately sulphate) solution	34		PSS	
* * * * *				
Poly(iminoethylene)-graft-N-poly(ethyleneoxy) solution (90% or less)	7	3	PIG	PIM
Polyisobutenamine in aliphatic (C10-C14) solvent	7	2	PIB	PIA
<b>[ADD]</b>				
(Polyisobutene) amino products in aliphatic hydrocarbons	7	3		
* * * * *				
<b>[REVISE]</b>				
Poly(4+)isobutylene (molecular weight > 224)	30	3	PIL	
<b>[ADD]</b>				
Polyisobutylene (molecular weight ≤ 224)	30	3	PIL	
<b>[REVISE]</b>				
* * * * *				
Polymethylene polyphenyl isocyanate	12	2	PPI	
<b>[ADD]</b>				
Polymethylsiloxane	34		PMX	
<b>[REVISE]</b>				
Polyolefin (molecular weight 300+)	33		PMW	PLF
Polyolefin amide alkeneamine (C17+)	33		POH	POD
<i>Polyolefin amide alkeneamine (C28+), see Polyolefin amide alkenamine (C17+)</i>			POD	POH
Polyolefin amide alkeneamine borate (C28-C250)	33		PAB	
* * * * *				
Polyolefin amide alkeneamine/Molybdenum oxysulfide (alternately oxysulphide) mixture	7		PMO	
* * * * *				
<b>[ADD]</b>				
Polyolefin amine (C17+)	7		POG	
<b>[REVISE]</b>				
* * * * *				
Polyolefinamine in aromatic solvent	32	3	POR	POF
Polyolefin aminoester salts (molecular weight 2000+)	34		PAE	
* * * * *				
Polyolefin phosphorosulfide (alternately phosphorosulphide), barium derivative (C28-C250)	34		PPS	
Poly (oxyalkylene) alkenyl ether (molecular weight > 1000)	41	3	PXY	
* * * * *				

Polyoxypropylenediamine (molecular weight 2000)	7		PYD	
Poly(5+) propylene	30		PLQ	PLP
Polypropylene glycol	40	2	PGC	
<i>Polypropylene glycol methyl ether, see</i> Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether			PGM	PAG
* * * * *				
Polysiloxane/White spirit, low (15-20%) aromatic	34		PWS	
<b>[ADD]</b>				
<i>Poly(tetramethylene ether) glycols (molecular weight 950-1050), see</i> alpha-hydro-omega-Hydroxytetradeca(oxytetramethylene)			PYU	HTO
Polytetramethylene ether glycol	40		PYT	HTO/PYU/PYS
<i>Poppy seed, see</i> Oil, edible: Poppy seed				OPS (VEO)
<i>Poppy, see</i> Oil, edible: Poppy				OPY (VEO)
* * * * *				
<b>[REVISE]</b>				
<i>Potassium hydroxide solution, see</i> Caustic potash solution		2		CPS/PTH
* * * * *				
Potassium polysulfide (alternately polysulphide) /Potassium thiosulfide (alternately thiosulphide) solution (41% or less)	0	1	PYP	PSF/PTF
* * * * *				
Potassium thiosulfate (alternately thiosulphate) (50% or less)	43		PTF	
* * * * *				
<i>iso-Propanolamine, see</i> Isopropanolamine				MPA (PAX/PLA)
* * * * *				
2-Propene-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, homopolymer solution	0	1, 3	PLN	
Propionaldehyde	19		PAD	
beta-Propiolactone	18	3	PLT	
* * * * *				
<i>n-Propoxypropanol, see</i> Propylene glycol monoalkyl ether			PXP	PGE
* * * * *				
<b>[ADD]</b>				
n-Propyl chloride	36		PRC	
Propyl ether	41			IPE/PRE
<b>[REVISE]</b>				
n-Propylamine	7		PRA	IPO/IPP/IPQ
<i>iso-Propylamine solution, see</i> Isopropylamine (70% or less) solution				IPQ (IPO/IPP/PRA)

<i>Propylbenzenes (all isomers), see Alkyl (C3-C4) benzenes</i>			PBY	AKC (CUM/PBZ)
<i>iso-Propyl cyclohexane, see Isopropylcyclohexane</i>				IPX
* * * * *				
<i>Propylene glycol n-butyl ether, see Propylene glycol monoalkyl ether</i>			PGD	PGE
<i>Propylene glycol ethyl ether, see Propylene glycol monoalkyl ether</i>			PGY	PGE
<i>Propylene glycol methyl ether, see Propylene glycol monoalkyl ether</i>		2	PME	PGE
Propylene glycol methyl ether acetate	34	2	PGN	
Propylene glycol monoalkyl ether	40		PGE	
<i>Including:</i>				
<i>n-Propoxypropanol</i>	40			
<i>Propylene glycol n-butyl ether</i>	40			
<i>Propylene glycol ethyl ether</i>	40			
<i>Propylene glycol methyl ether</i>	40			
<i>Propylene glycol propyl ether</i>	40			
Propylene glycol phenyl ether	40		PGP	
<i>Propylene glycol propyl ether, see Propylene glycol monoalkyl ether</i>				PGE
* * * * *				
Propylene trimer	30		PTR	
<b>[ADD]</b>				
Propylene/Propane/MAPP gas mixture	30	2	PPM	
<b>[REVISE]</b>				
<i>Pseudocumene, see Trimethylbenzene (all isomers)</i>				TMB/TMD/TME/TRE
* * * * *				
<i>Pyridine bases, see Paraldehyde-Ammonia reaction product</i>				PRB
Pyrolysis gasoline (containing Benzene)	32	3	PYG	GPY
<i>Rapeseed oil (low erucic acid containing less than 4% free fatty acids), see Oil, edible: Rapeseed (low erucic acid containing less than 4% free fatty acids)</i>		3		ORO (VEO)
<i>Rapeseed oil fatty acid methyl esters, see Oil, misc.: Rapeseed fatty acid methyl esters</i>		3		RSO
<i>Rapeseed oil, see Oil, edible: Rapeseed</i>				ORO (VEO)
* * * * *				
<i>Resin oil, distilled, see Oil, misc.: Resin, distilled</i>		3		ORR (ORS)
<i>Rice bran oil, see Oil, edible: Rice bran</i>				ORB
<b>[ADD]</b>				

Rosin soap (disproportionated) solution	43		RSP	
<b>[REVISE]</b>				
<i>Rosin, see</i> Oil, misc.: Rosin				ORN
<i>Rum, see</i> Alcoholic beverages, n.o.s.				ABV
<i>Safflower oil, see</i> Oil, edible: Safflower				OSF (VEO)
* * * * *				
<i>Shea butter, see</i> Oil, edible: Shea butter		3		OSH (VEO)
* * * * *				
Sodium acetate solutions	34		SAN	
Sodium acetate, Glycol, Water mixture (containing 1% or less Sodium hydroxide) (if non-flammable or non-combustible)	5	2	SAY	SAO/SAP/SAQ/SAY
Sodium acetate, Glycol, Water mixture (containing Sodium hydroxide)	5		SAQ	SAO/SAP/SAW/SAY
Sodium acetate, Glycol, Water mixture (not containing Sodium hydroxide)	34	2	SAW	SAO/SAP/SAQ/SAY
Sodium alkyl (C14-C17) sulfonates (alternately sulphonates) (60-65% solution)	34		SSU	AKA/AKE
* * * * *				
Sodium benzoate	34		SBN	SBM
Sodium bicarbonate solution (less than 10%)	34	3	SBC	
* * * * *				
Sodium bromide solution (less than 50%)	43	3	SBL	SBR
* * * * *				
<b>[ADD]</b>				
<i>Sodium dimethyl naphthalene sulfonate solution, see</i> Dimethyl naphthalene sulfonic (alternately sulphonic) acid, sodium salt solution				DNS
<b>[REVISE]</b>				
Sodium hydrogen sulfide (alternately sulphide) (6% or less)/Sodium carbonate (3% or less) solution	0	1, 2, 3	SSS	SCE/SHW
Sodium hydrogen sulfite (alternately sulphite) solution (45% or less)	43		SHY	SHX
Sodium hydrosulfide (alternately hydrosulphide) /Ammonium sulfide (alternately sulphide) solution	5	2	SSA	ASF/ASS
Sodium hydrosulfide (alternately hydrosulphide) solution (45% or less)	5	2	SHR	
<i>Sodium hydroxide solution, see</i> Caustic soda solution		2		CSS (SHD)
* * * * *				
Sodium lignosulfonate (alternately lignosulphonate) solution	43		SLG	LNL

Sodium long-chain alkyl salicylate (C13+)	34		SLS	
<i>Sodium-2-mercaptobenzothiazol solution, see Mercaptobenzothiazol, sodium salt solution</i>				SMB
Sodium methoxide (25% in methanol)	0	1	SMO	
Sodium methylate 21-30% in methanol	0	1, 2, 3	SMT	SMS
<i>Sodium naphthalene sulfonate (alternately sulphonate) solution, see Naphthalene sulfonic (alternately sulphonic) acid (40% or less), sodium salt solution (40% or less)</i>			SNS	NSA (NSB)
<i>Sodium naphthenate solution, see Naphthenic acid, sodium salt solution</i>				NTS
* * * * *				
<b>[ADD]</b>				
<i>Sodium N-methyl dithio carbamate solution, see Metam sodium solution</i>			MSS	SMD
<b>[REVISE]</b>				
Sodium petroleum sulfonate (alternately sulphonate)	34		SPS	
Sodium poly(4+)acrylate solution	43	2	SOP	SOO
Sodium polyacrylate solution	43	2	SOO	SOP
<i>Sodium salt of Ferric hydroxyethylethylenediaminetriacetic acid solution, see Ferric hydroxyethylethylenediaminetriacetic acid, trisodium salt solution</i>			STA	FHX
* * * * *				
Sodium sulfate (alternately sulphate) solution	34	3	SST	SSO
Sodium sulfide (alternately sulphide) solution (15% or less)	43		SDR	SDS
Sodium sulfide (alternately sulphide) /Hydrosulfide (alternately Hydrosulphide) solution (H <sub>2</sub> S 15 ppm or less)	0	1, 2	SSH	SDS/SHR/SSI/SSJ
Sodium sulfide (alternately sulphide) /Hydrosulfide (alternately Hydrosulphide) 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 (alternately sulphide) /Hydrosulfide (alternately Hydrosulphide) solution (H <sub>2</sub> S greater than 200 ppm)	0	1, 2	SSJ	SDS/SHR/SSH/SSI
Sodium sulfite (alternately sulphite) solution (25% or less)	43		SUP	SSF/SUS
<b>[ADD]</b>				
Sodium tartrates/Sodium succinates solution	43		STM	
* * * * *				
<b>[REVISE]</b>				
<i>Soyabean fatty acid methyl ester, see Oil, misc.: Soyabean fatty acid methyl ester</i>				OST

<b>[ADD]</b>				
Soyabean oil (epoxidized)	34			OSC/EVO
<b>[REVISE]</b>				
<i>Soyabean oil, see Oil, edible: Soyabean</i>		2		OSB (VEO)
<i>Stearic acid, see Fatty acids (saturated, C13+)</i>			SRA	FAD (FAB/FAE/FDI/FDT)
* * * * *				
<i>Stoddard solvent, see Naphtha: Stoddard solvent</i>				NSS
* * * * *				
Sulfohydrocarbon (alternately Sulphohydrocarbon) (C3-C88)	33		SFO	
Sulfohydrocarbon (alternately Sulphohydrocarbon), long-chain (C18+) alkylamine mixture	7		SFX	
Sulfolane (alternately Sulpholane)	39		SFL	
Sulfonated (alternately Sulphonated) polyacrylate solutions	43	2	SPA	
Sulfur (alternately Sulphur) (molten)	0	1, 2	SXX	
Sulfur (alternately Sulphur) dioxide	0	1	SFD	
Sulfuric (alternately Sulphuric) acid	2	2	SFA	SAC
Sulfuric (alternately Sulphuric) acid, spent	2	2	SAC	SFA
Sulfurized (alternately Sulphurized) fat (C14-C20)	33		SFT	
Sulfurized (alternately Sulphurized) polyolefinamide	10		SPY	
Sulfurized (alternately Sulphurized) polyolefinamide alkene (C28-C250) amine	33		SPO	
<i>Sunflower seed oil, see Oil, edible: Sunflower seed</i>	34			OSN (VEO)
<b>[ADD]</b>				
<i>Sym-trichlorobenzene, see 1,2,4-Trichlorobenzene</i>				
<b>[REVISE]</b>				
<i>Tall oil, see Oil, misc.: Tall</i>				OTL (OTI/OTJ)
<i>Tall oil, crude, see Oil, misc.: Tall, crude</i>		2, 3		OTI (OTJ/OTL)
<i>Tall oil, distilled, see Oil, misc.: Tall, distilled</i>		3		OTJ (OTI/OTL)
<i>Tall oil, fatty acid, see Oil, misc.: Tall fatty acid</i>		2		OTT
<i>Tall oil fatty acid (resin acids less than 20%), see Oil, misc.: Tall oil fatty acid (resin less than 20%)</i>		2		OTK (OTT)
<b>[ADD]</b>				
Tall oil fatty acid, barium salt	0	1, 2	TOB	
<b>[REVISE]</b>				
<i>Tall oil pitch, see Oil, misc.: Tall pitch</i>		3		OTP (OTI/OTJ/OTL)
Tall oil soap (crude)	34		TOR	TOS
<b>[ADD]</b>				
Tall oil soap (disproportionated) solution	43		TOS	
<b>[REVISE]</b>				

Tallow	34	2	TLO	
<i>Tallow alcohol, see</i> Alcohols (C13+)		2	TFA	ALY (ASY)
* * * * *				
<i>Tallow fatty alcohol, see</i> Alcohols (C13+)		2	TFA	ALY
<i>TAME, see</i> tert-Amyl methyl ether				AYE
Tertiary butylphenols	21		BLT	BTP
<b>[ADD]</b>				
Tetrachloroethane	36		TEC	
<b>[REVISE]</b>				
<i>1,1,2,2-Tetrachloroethane, see</i> Tetrachloroethane	36		TEC	TEE
<i>Tetradecanol, see</i> Alcohols (C13+)			TTN	ALY
<i>Tetradecene, see</i> olefins or alpha-olefin entries				OAM/OFY/OFW/OFZ/TDD
<i>Tetradecylbenzene, see</i> Alkyl (C9+) benzenes			TDB	AKB
Tetraethyl silicate monomer/oligomer (20% in ethanol)	0	1, 3	TSM	
* * * * *				
<i>Tetraethylene glycol methyl ether, see</i> Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether				PAG
Tetraethylenepentamine	7	2	TTP	
Tetrahydrofuran	41		THF	
* * * * *				
<b>[ADD]</b>				
<i>1,2,3,5-Tetramethylbenzene, see</i> Tetramethylbenzene (all isomers)			TTB	TTC
<b>[REVISE]</b>				
<i>Tetrapropylbenzene, see</i> Alkyl(C9+)benzenes				AKB
<i>Tetrasodium salt of ethylenediaminetetraacetic acid solution, see</i> Ethylenediaminetetraacetic acid, tetrasodium salt solution				EDS
* * * * *				
Toluene	32	2	TOL	
Toluene diisocyanate	12	2		TDI
Toluenediamine	9		TDA	
o-Toluidine	9	2	TLI	TOD/TOI
<i>Triarylphosphate, see</i> Triisopropylated phenyl phosphates			TRA	TPL
* * * * *				
1,2,3-Trichlorobenzene (molten)	36	3	TBZ	TCB
* * * * *				
<b>[ADD]</b>				
<i>1,2,3-Trichlorobenzol, see</i> 1,2,3-Trichlorobenzene (molten)			TBZ	TCB
* * * * *				

<b>[REVISE]</b>				
Trichloroethylene	36	2	TCL	
1,1,2-Trichloro-1,2,2-trifluoroethane	36		TTF	
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
1,2,3-Trichloropropane	36	2	TCN	
<i>Tridecane (all isomers), see n-Alkanes (C10+) (all isomers)</i>			TRD	ALV (ALJ)
* * * * *				
<i>Tridecanol, see Alcohols (C13+)</i>			TDN	ALY (ASK/ASY/AYK/LAL)
<i>Tridecene, see Olefins (C13+ all isomers)</i>			TRD	OAM/OFY/OFW/OFZ/TDC
* * * * *				
<i>Tridecylbenzene, see Alkyl (C9+) benzenes</i>			TRB	AKB
* * * * *				
<i>Triethylene glycol butyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>			TBE	PAG
* * * * *				
<b>[ADD]</b>				
Triethylene glycol dibenzoate	34		TGB	
<b>[REVISE]</b>				
Triethylene glycol ether mixture	40		TYM	
<i>Triethylene glycol ethyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>			TGE	PAG
<i>Triethylene glycol methyl ether, see Poly(2-8)alkylene glycol monoalkyl (C1-C6) ether</i>			TGY	PAG
* * * * *				
<i>Triisopropanolamine salt of 2,4-Dichlorophenoxyacetic acid solution, see 2,4-Dichlorophenoxyacetic acid, Triisopropanolamine salt solution</i>				DTI
* * * * *				
<i>Trimethyl nonanol, see Dodecyl alcohol</i>				DDN (ASK/ASY/LAL)
Trimethylol propane polyethoxylated	20		TPR	
<b>[ADD]</b>				
Trimethyl phosphite	34	2	TPP	
Trimethylhexamethylene diisocyanate (2,2,4- and 2,4,4-)	12		THI	
Trimethylhexamethylenediamine (2,2,4- and 2,4,4-)	7		THA	
* * * * *				
<b>[REVISE]</b>				
<i>Tripropylene, see Propylene trimer</i>				PTR
* * * * *				

<i>Tripropylene glycol methyl ether, see</i> Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether			TGM	PAG
<i>Trisodium nitrilotriacetate solution, see</i> Nitrilotriacetic acid, trisodium salt solution			TSO	NCA (TSN)
* * * * *				
<i>Trisodium salt of N-(Hydroxyethyl)ethylenediaminetriacetic acid solution, see</i> N-(Hydroxyethyl)ethylenediaminetriacetic acid, trisodium salt solution				HET
Trixylyl phosphate	34			TRP
<i>Trixylenyl phosphate, see</i> Trixylyl phosphate				TRP
<i>Tung oil, see</i> Oil, misc.: Tung				OTG
* * * * *				
<i>Turpentine substitute, see</i> White spirit (low (15-20%) aromatic)				WSL (WSP)
<i>Undecane (all isomers), see</i> Alkanes (C10+) (all isomers)			UDN	ALV (ALJ)
* * * * *				
<i>Undecanol, see</i> Undecyl alcohol				UND (ALR)
* * * * *				
<i>Undecylbenzene, see</i> Alkyl (C9+) benzenes			UDB	AKB
Urea solution	43		USL	URE
Urea, Ammonium mono- and di-hydrogen phosphate/Potassium chloride solution	0	1	UPX	
Urea/Ammonium nitrate solution (containing less than 1% free Ammonia)	43	2	UAU	ANU/UAS/UAT/UAV
Urea/Ammonium nitrate solution (containing 1% or more free Ammonia)	6		UAT	ANU/UAS
Urea/Ammonium phosphate solution	43		UAP	
<b>[ADD]</b>				
Vacuum gas oil, see oil misc.: Vacuum gas oil	33		OVC	
<b>[REVISE]</b>				
Valeraldehyde (all isomers)	19		VAK	IVA/VAL
* * * * *				
Vegetable acid oils, n.o.s.	34		VAD	
<i>Including:</i>				
<i>Corn acid oil</i>	34			
<i>Cottonseed acid oil</i>	34			
<i>Dark mixed acid oil</i>	34			
<i>Groundnut acid oil</i>	34			
<i>Mixed acid oil</i>	34			

<i>Mixed general acid oil</i>	34		
<i>Mixed hard acid oil</i>	34		
<i>Mixed soft acid oil</i>	34		
<i>Rapeseed acid oil</i>	34		
<i>Safflower acid oil</i>	34		
<i>Soya acid oil</i>	34		
<i>Sunflower seed acid oil</i>	34		
Vegetable fatty acid distillates, n.o.s.	34	3	VFD
<i>Including:</i>			
<i>Palm kernel fatty acid distillate</i>	34		
<i>Palm oil fatty acid distillate</i>	34		
<i>Tall fatty acid distillate</i>	34		
<i>Tall oil fatty acid distillate</i>	34		
Vegetable oils, n.o.s.	34		VAD
<i>Including:</i>			
<i>Beechnut oil</i>	34		
<i>Camelina oil</i>	34		
<i>Cashew nut shell</i>	34		
<i>Castor oil</i>	34		
<i>Cocoa butter</i>	34		
<i>Coconut oil</i>	34	2	
<i>Corn oil</i>	34		
<i>Cottonseed oil</i>	34		
<i>Croton oil</i>	34		
<i>Grape seed oil</i>	34		
<i>Groundnut acid oil</i>	34		
<i>Hazelnut oil</i>	34		
<i>Illipe oil</i>	34		
<i>Jatropha oil</i>	34	3	
<i>Linseed oil</i>	34		
<i>Mango kernel oil</i>	34		
<i>Nutmeg butter</i>	34		
<i>Oiticica oil</i>	34		
<i>Olive oil</i>	34		
<i>Palm kernel oil</i>	34		
<i>Palm kernel olein</i>	34		
<i>Palm kernel stearin</i>	34		
<i>Palm mid fraction</i>	34		

<i>Palm, non-edible industrial grade</i>	34			
<i>Palm oil</i>	34	2, 3		
<i>Palm olein</i>	34			
<i>Palm stearin</i>	34			
<i>Peanut oil</i>	34			
<i>Peel oil (oranges and lemons)</i>	34			
<i>Perilla oil</i>	34			
<i>Pine oil</i>	34			
<i>Poppy seed oil</i>	34			
<i>Poppy oil</i>	34			
<i>Raisin seed oil</i>	34			
<i>Rapeseed oil</i>	34			
<i>Rapeseed (low erucic acid containing less than 4% free fatty acids)</i>	34	3		
<i>Resin oil, distilled</i>	30	3		
<i>Rice bran oil</i>	34			
<i>Rosin oil</i>	34			
<i>Safflower oil</i>	34			
<i>Salad oil</i>	34			
<i>Sesame oil</i>	34			
<i>Shea butter</i>	34			
<i>Soyabean oil</i>	34	2		
<i>Sunflower seed oil</i>	34			
<i>Tall</i>	34			
<i>Tall, crude</i>	34			
<i>Tall, distilled</i>	34			
<i>Tall, pitch</i>	34			
<i>Tucum oil</i>	34			
<i>Tung oil</i>	34			
<i>Walnut oil</i>	34			
* * * * *				
<b>Waxes</b>			<b>WAX</b>	
<i>Including:</i>				
<i>Candelilla</i>	34		WCD	
<i>Carnauba</i>	34		WCA	
<i>Paraffin</i>	31		WPF	
<i>Petroleum</i>	33		WPT	
<i>White spirit, see</i> White spirit (low (15-20%) aromatic)			WSP	WSL
* * * * *				

<i>Wine, see</i> Alcoholic beverages			ABV	
* * * * *				
Wood lignin with Sodium acetate/oxalate	0	1, 3	WOL	
Xylenes	32	2	XLX	XML/XLO/XLP
* * * * *				
Xylenols	21		XYL	
* * * * *				
Zinc alkenyl carboxamide	10		ZAA	WSL
* * * * *				
<i>Zinc bromide/Calcium bromide solution, see</i> Drilling brine (containing Zinc salts)				DZB

Notes:

1. Because of very high reactivity, 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. Entry was added from the March 2012 Annex to the 2007 edition of the IBC Code (MEPC 63/23/Add.1), the December 2012 IMO Marine Environmental Protection Committee Circular (MEPC.2/Circ.18), or the December 2013 IMO Marine Environmental Protection Committee Circular (MEPC.2/Circ.19).
4. *Italicized* words are not part of the cargo name but may be used in addition to the cargo name.

8. Amend Table II to Part 150 as follows:

a. Revise the table heading;

b. In section 0. Unassigned, revise the group heading to read as “Unassigned Cargoes” and remove the entries for:

- i. “Alkyl (C8-C10)/(C12-C14) : (60% or more/40% or less)”;
- ii. “polyglucoside solution (55% or less)”;
- iii. “Aluminium chloride, Hydrochloric acid solution”;
- iv. “tert-Dodecanethiol”;
- v. “Dimethylamine salt of 2,4-Dichlorophenoxyacetic acid solution”;
- vi. “Fuming sulfuric acid”;
- vii. “Ligninsulfonic acid, sodium salt solution”;
- viii. “NIAX POLYOL APP 240C”;
- ix. “Noxious Liquid Substance, n.o.s (NLS’s)”;
- x. “SAP 7001”.

c. In section 2. Sulfuric Acids, revise the group heading to read “Sulfuric (Alternately Sulphuric) Acids”;

d. In section 3. Nitric Acids, remove the entry for “Nitric acid (70% and over)”;

e. In section 4. Organic Acids, remove the entries for:

- i. “Acid oil mixture from soya bean, corn (maize) and sunflower oil refining”;
- ii. “i-Butyric acid”; “Cashew nut shell oil (untreated)”;
- iii. “Chloroacetic acid solution”;
- iv. “2-Ethylhexanoic acid”;
- v. “Fatty acids, (C8-C10)”;
- vi. “Fatty acids, (C12 + )”;

- vii. "Fatty acids, (C16 +)";
- viii. "Fatty acids, essentially linear (C6-C18) 2-ethylhexyl ester";
- ix. "Fatty acid methyl esters";
- x. "Metal fatty acid salt";
- xi. "Metal long chain alkyl salt"; and
- xii. "Microsilica slurry".

f. In section 5. Caustics, remove the entries for:

- i. "Calcium hypochlorite solutions";
- ii. "Cresylate spent caustic";
- iii. "Sodium hydroxide solution"; and
- iv. "Sodium naphenate solution".

g. In section 6. Ammonia, remove the entries for "Ammonia, aqueous" and "Ammonium nitrate, Urea solution (containing Ammonia)";

h. In section 7. Aliphatic Amines, remove the entries for:

- i. "Alkenylamine mixtures";
- ii. "Alkyl (greater than C8) amine, Alkenyl (greater than C12) acid ester in mineral oil";
- iii. "Calcium long chain alkyl phenolic amine (C8-C40)";
- iv. "Diphenylamine, reaction product with 2,2,4-Trimethylpentene";
- v. "Diphenylamines, alkylated";
- vi. "Hexamethylenediamine";
- vii. "Hexamethylenetetramine";
- viii. "HiTec 321";
- ix. "Polyalkyl alkeneamine succinimide, molybdenum oxysulfide";

- x. "Polyolefin amide alkeneamine (C28 +)";
- xi. "Polyolefin amide alkeneamine polyol";
- xii. "Propanil, Mesityl oxide, Isophorone mixture"; and
- xiii. "Roundup".

i. In section 8. Alkanolamines, remove the entries for "Diethylethanolamine", "N,N-bis (2-Hydroxyethyl) oleamide", and "Ucarsol CR Solvent 302 SG";

j. In section 9. Aromatic Amines, remove the entries for "Dimethylamine salt of 4-Chloro-2-methylphenoxyacetic acid solution" and "Diphenylamine";

k. In section 11. Organic Anhydrides, remove the entries for "Alkyl succinic anhydride" and "Phthalate based polyester polyol";

l. In section 14. Acrylates, remove the entries for:

- i. "i-Butyl methacrylate";
- ii. "Butyl methacrylate, Decyl methacrylate, Cetyl-Eicosyl methacrylate mixture";
- iii. "Polyalkyl methacrylate";
- iv. "Polyalkyl methacrylate solution (containing max 40% active material)";
- v. "Propylene copolymer mixture"; and
- vi. "Roehm monomer 6615".

m. In section 18. Ketones, remove the entries for "Amyl methyl ketone", "Epoxy resin", and "Trifluralin in Xylene";

n. In section 19. Aldehydes, remove the entry for "Ethylhexaldehyde";

o. In section 20. Alcohols, Glycols, remove the entries for:

- i. "Brake fluid base mixtures";
- ii. "iso-Butyl alcohol";

- iii. "t-Butyl alcohols";
- iv. "Cetyl-Stearyl alcohol";
- v. "Cyclopentanol";
- vi. "Diethyl hexanol";
- vii. "Diethylene glycol";
- viii. "Diethylene glycol dibenzoate";
- ix. "Diisobutyl carbinol";
- x "Dodecanol";
- xi. "Dodecyl hydroxypropyl sulfide";
- xii. "2-Ethoxyethanol";
- xiii. "2-Ethylhexanol";
- xiv. "Glycol";
- xv. "Hydroxy terminated polybutadiene";
- xvi. "Icosa(oxypropane-2,3-diyl)s";
- xvii. "Lauryl polyglucose (50% or less)";
- xviii. "Pentadecanol";
- xix. "Rum";
- xx. "Sodium methylate solution (21-30% in Methanol)";
- xxi. "Tetradecanol"; and
- xxii. "Tridecanol".

p. In section 22. Caprolactam Solutions, remove the entry for "Caprolactam solution";

q. In section 30. Olefins, remove the entries for:

- i. "Amylene";

- ii. "Butadiene Feedstock [Kirby]";
- iii. "Butene";
- iv. "Dichloropropene";
- v. "Dicyclopentadiene";
- vi. "Ethylene-Propylene copolymer";
- vii. "Olefin mixtures";
- viii. "alpha-Olefins (C13 +)";
- ix. "Polybutene";
- x. "Polyolefin (molecular weight 300 +)"; and
- xi. "Polypropylene".

r. In section 31. Paraffins, remove the entries for:

- i. "Aviation alkylates (C8 paraffins and iso-paraffins BPT 95-120 °C)";
- ii. "Decane";
- iii. "Dodecane";
- iv. "Heptane";
- v. "Hexane";
- vi. "Mineral oil";
- vii. "Polyolefin (molecular weight 300 +)";
- viii. "iso-Propylcyclohexane";
- ix. "Tridecane"; and
- x. "Paraffin".

s. In section 32 Aromatic Hydrocarbons, revise the group heading to read "Aromatic Hydrocarbon Mixtures" and remove the entries for:

- i. "Aryl polyolefin (C11-C50)";
- ii. "Butylbenzene (all isomers)";
- iii. "Cumene";
- iv. "Decylbenzene";
- v. "Dialkyl(C10-C14) benzenes";
- vi. "Dodecylbenzene";
- vii. "1-Hexadecylnaphthalene, 1, 4-bis(Hexadecyl)";
- viii. "Isopropylbenzene";
- ix. "Naphthalene mixture";
- x. "Propylbenzene";
- xi. "Pseudocumene";
- xii. "Tetradecylbenzene"; and
- xiii. "Undecylbenzene".

t. In section 33. Miscellaneous Hydrocarbon Mixtures, remove the entries for:

- i. "Alachlor";
- ii. "Alkyl toluene sulfonic acid, calcium salts";
- iii. "Degummed C9 (DOW)";
- iv. "Distillates";
- v. "Maleated ethylene-propylene copolymer reaction product [synthetic rubber]";
- vi. "Pine oil";
- vii. "Resin oil, distilled"; and
- viii. "Sodium petroleum sulfonate".

u. In section 34. Esters, remove the entries for:

- i. "Acid oil mixture from soybean, corn (maize) and sunflower oil refining";
- ii. "Alkane (C14-C17) sulfonic acid, sodium salt solution";
- iii. "Alkyl ester copolymer (C6-C18)";
- iv. "Alkylaryl phosphate mixtures (more than 40%)";
- v. "t-Amyl formate";
- vi. "iso-Butyl isobutyrate";
- vii. "Calcium alkaryl sulfonate (C11-C50) Calcium alkyl(C9)phenol sulfide, polyolefin phosphorosulfide mixture";
- viii. "Calcium long chain alkyl phenates";
- ix. "Calcium nitrate";
- x. "Camelina oil";
- xi. "Cesium formate solution";
- xii. "Coconut oil, fatty acid";
- xiii. "Coconut oil, fatty acid methyl ester";
- xiv. "Copper salt of long chain alkanolic acids";
- xv. "Cottonseed oil, fatty acid";
- xvi. "Dialkyl(C7-C13) phthalates";
- xvii. "Diethylene glycol butyl ether acetate";
- xviii. "Diethylene glycol ethyl ether acetate";
- xix. "Diethylene glycol methyl ether acetate";
- xx. "Diheptyl phthalate";
- xxi. "Dihexyl phthalate";
- xxii. "Diisodecyl phthalate";

- xxiii. "Diisononyl adipate";
- xxiv. "Diisononyl phthalate";
- xxv. "Diisooctyl phthalate";
- xxvi. "Dinonyl phthalate";
- xxvii. "Dioctyl phthalate";
- xxviii. "Diphenyl tolyl phosphate, less than 0.02% ortho-isomer");
- xxix. "Ditridecyl phthalate";
- xxx. "Diundecyl phthalate";
- xxxi. "Ethyl propionate",
- xxxii. "Ethylene glycol";
- xxxiii. "Ethylene glycol ethyl ether acetate";
- xxxiv. "Fatty acids (saturated, C14 +)";
- xxxv. "Glycerol polyalkoxylate";
- xxxvi. "Lard";
- xxxvii. "Magnesium long chain alkyl phenate sulfide (C8-C40)";
- xxxviii. "Magnesium long chain alkyl salicylate (C13 +)";
- xxxix. "Mango kernel";
- xl. "Olefin/Alkyl ester copolymer (molecular weight 2000 +)";
- xli. "Oleic acid";
- xlii. "Palm acid oil";
- xliii. "Palm fatty acid distillate";
- xliv. "Palm kernel acid oil";
- xlv. "Palm kernel acid oil, methyl esterPalm kernel oil fatty acid";

- xlvi. "Palm mid fraction";
- xlvii. "Palm oil";
- xlviii. "Palm oil fatty acid";
- xlix. "Palm oil fatty acid methyl ester";
- l. "Palm kernel olein";
- li. "Palm kernel stearin";
- lii. "Palm olein";
- liii. "Palm stearin";
- liv. "Polydimethylsiloxane";
- lv. "Polyolefin amide alkeneamine borate (C28-C250)";
- lvi. "Rapeseed oil fatty acid methyl esters";
- lvii. "Rapeseed oil (low erucic acid containing less than 4% free fatty acids)";
- lviii. "Siloxanes";
- lix. "Sodium bromide solution (less than 50%)";
- lx. "Soyabean oil (epoxidized)";
- lxi. "Stearic acid";
- lxii. "Tall oil";
- lxiii. "Tall oil, crude";
- lxiv. "Tall oil, distilled";
- lxv. "Tall oil fatty acid (*Resin acids less than 20%*)";
- lxvi. "Tall oil, pitch";
- lxvii. "Tricresyl phosphate"; and
- lxviii. "Urea/Ammonium nitrate solution".

- v. In section 36. Halogenated Hydrocarbons, remove the entries for:
- i. “Chlorodifluoromethane”;
  - ii. “Chlorotoluene”;
  - iii. “Dibutylphenols”; and
  - iv. “1,2,3-Trichlorobenzene”.
- w. In section 38. Carbon Disulfide, revise the group name to read “Carbon Disulfide (Alternately Disulphide)”;
- x. In section 39. Sulfolane, revise the group name to read “Sulfolane (Alternately Sulpholane)”;
- y. In section 40. Glycol Ethers, remove the entries for:
- i. “Alcohol (C9-C11) poly (2.5-9) ethoxylates”;
  - ii. “Alcohol (C6-C17) (secondary) poly (3-6) ethoxylates”;
  - iii. “Alcohol (C6-C17) (secondary) poly (7-12) ethoxylates”;
  - iv. “Alcohol (C12-C16) poly (1-6) ethoxylates”;
  - v. “Alcohol (C12-C16) poly (7-19) ethoxylates”;
  - vi. “Alcohol (C12-C16) poly (20 + ) ethoxylates”;
  - vii. “Hexaethylene glycol”;
  - viii. “Polyether glycol”;
  - viii. “Polyether glycol (MW 600-700) (TETRAETHANE 650)”;
  - ix. “Polyether glycol (MW 950-1050) (TETRAETHANE 1000)”;
  - x. “Polyether glycol (MW 1350-1450) (TETRAETHANE 1400)”;
  - xi. “Polyether glycol (MW 1900-2100) (TETRAETHANE 2000)”;
  - xii. “Polyether glycol (MW 2825-2975) (TETRAETHANE 2900)”;
  - xiii. “Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate”.

z. In section 41. Ethers, remove the entries for:

- i. "Brominated Epoxy Resin in Acetone";
- ii. "Diethylene glycol propyl ether";
- iii. "Diglycidyl ether of Bisphenol A";
- iv. "Diglycidyl ether of Bisphenol F"; and
- v. "Ethyl ether".

aa. In section 42. Nitrocompounds, remove the entry for "Nitropropane";

bb. In section 43. Miscellaneous Water Solutions, remove the entries for:

- i. "Alkyl polyglucoside solutions";
- ii. "Aluminum hydroxide, sodium hydroxide, sodium carbonate solution (40% or less)";
- iii. "Ammonium chloride solution (less than 25%) drilling brines";
- iv. "Ammonium lignosulfonate solution";
- v. "Ammonium nitrate, Urea solution (not containing Ammonia)";
- vi. "Barium sulfate slurry";
- vii. "Calcium bromide solution";
- viii. "Calcium chloride solution";
- ix. "Calcium formate solution";
- x. "Calcium lignosulfate solution";
- xi. "Calcium lignosulfate solution (free alkali content 1% or less)";
- xii. "Diethanolamine salt of 2,4-Dichlorophenoxyacetic acid solution";
- xiii. "Ferrous chloride solution (less than 40%, containing less than 10% Manganese and Aluminum chlorides)";
- xiv. "Potassium thiosulfate solution";

xv. “Sodium alkyl sulfonate solution”; and

xvi. “Sodium sulfite solution”.

cc. In the following table, for the “Cargo” column, under the appropriate “Group” heading, add the entries marked “[ADD]” in the appropriate alphabetical order and revise the entries marked “[REVISE]”; and

dd. Revise the notes at the end of the table.

The revisions and additions read as follows:

**Table 2 to Part 150 – Grouping of Cargoes**

<b>0. UNASSIGNED CARGOES</b>
<b>[REVISE]</b>
Acetone cyanohydrin
Alkenoic acid, polyhydroxy ester borated
Alkylbenzene distillation bottoms
Alkyl (C11-C17) benzene sulfonic (alternately sulphonic) acid
Alkylbenzene sulfonic (alternately sulphonic) acid (less than 4%)
Alkyl (C18-C28) toluenesulfonic (alternately toluenesulphonic) acid
Aluminum (alternately Aluminium) chloride/Hydrogen chloride solution
Ammonium hydrogen phosphate solution
Ammonium nitrate solution (45% or less)
<b>[ADD]</b>
Ammonium nitrate solution (93% or less)
<b>[REVISE]</b>
Ammonium thiocyanate/Ammonium thiosulfate (alternately thiosulphate) solution
<b>[ADD]</b>
Argon, liquefied
<b>[REVISE]</b>
Benzenesulfonyl (alternately Benzenesulphonyl) chloride <sup>1</sup>
gamma-Butyrolactone <sup>1</sup>
<b>[ADD]</b>
Carbon dioxide (high purity)
Carbon dioxide (reclaimed quality)
Carbon dioxide, liquefied
<b>[REVISE]</b>
Chlorine
<b>[ADD]</b>
2-Chloro-4-ethylamino-6-isopropylamino-5-triazine solution
<b>[REVISE]</b>
Chlorosulfonic (alternately Chlorosulphonic) acid
Decyloxytetrahydro-thiophene dioxide
2,4-Dichlorophenoxyacetic acid, Dimethylamine salt solution (70% or less) <sup>1</sup>
Dimethyl disulfide (alternately disulphide)
Diphenylol propane-Epichlorohydrin resins
<b>[ADD]</b>

Disulfide (alternately Disulphide)
<b>[REVISE]</b>
Dodecyl hydroxypropyl sulfide (alternately sulphide) <sup>1</sup>
Dodecylbenzenesulfonic (alternately Dodecylbenzenesulphonic) acid <sup>1</sup>
Ethylene oxide
Hydrogen peroxide solutions (over 60% but not more than 70% by mass)
<b>[ADD]</b>
Hydrogen peroxide solutions (over 8% but not more than 60% by mass)
<b>[REVISE]</b>
Hydrogenated starch hydrolysate
Lactic acid <sup>1</sup>
Liquid chemical wastes
Long-chain alkaryl sulfonic (alternately sulphonic) acid (C16-C60) <sup>1</sup>
Magnesium chloride solution <sup>1</sup>
Maltitol solution
Methylcyclopentadienyl manganese tricarbonyl
Methylcyclopentadienyl manganese tricarbonyl (60-70%) in mineral oil
Molasses residue (from fermentation)
Molybdenum polysulfide (alternately polysulphide) long-chain alkyl dithiocarbamide complex
Motor fuel anti-knock compound (containing lead alkyls)
Naphthalene sulfonic (alternately sulphonic) acid-formaldehyde copolymer, sodium salt solution
Nitrating acid (mixture of Sulfuric (alternately Sulphuric) and Nitric acids)
Nitric acid (70% and over) <sup>1</sup>
Nitric acid fuming
<b>[ADD]</b>
Nitric acid red fuming
Nitrogen
<b>[REVISE]</b>
o-Nitrophenol (molten) <sup>1</sup>
<b>[ADD]</b>
Noxious Liquid Substance, NF, (1) n.o.s. (“trade name” contains “principal components”) Cat X
Noxious Liquid Substance, F, (2) n.o.s. (“trade name” contains “principal components”) Cat X
Noxious Liquid Substance, NF, (3) n.o.s. (“trade name” contains “principal components”) Cat X
Noxious Liquid Substance, F, (4) n.o.s. (“trade name” contains “principal components”) Cat X
Noxious Liquid Substance, NF, (5) n.o.s. (“trade name” contains “principal components”) Cat Y
Noxious Liquid Substance, F, (6) n.o.s. (“trade name” contains “principal components”) Cat Y
Noxious Liquid Substance, NF, (7) n.o.s. (“trade name” contains “principal components”) Cat Y
Noxious Liquid Substance, F, (8) n.o.s. (“trade name” contains “principal components”) Cat Y
Noxious Liquid Substance, NF, (9) n.o.s. (“trade name” contains “principal components”) Cat Z
Noxious Liquid Substance, F, (10) n.o.s. (“trade name” contains “principal components”) Cat Z
Noxious Liquid Substance, (11) n.o.s. (“trade name” contains “principal components”) Cat Z

<b>[REVISE]</b>
Non-noxious Liquid Substance, (12) n.o.s. (“trade name” contains “principal components”) Cat OS
<b>[ADD]</b>
n-Octyl Mercaptan
<b>[REVISE]</b>
Oleum <sup>1</sup>
Orange juice (concentrated)
Orange juice (not concentrated)
Oxygenated aliphatic hydrocarbon mixture
Phosphorus, yellow or white
<b>[ADD]</b>
Phosphosulfurized (alternately Phosphosulphurized) bicycle terpene
<b>[REVISE]</b>
Phthalate-based polyester polyol <sup>1</sup>
<b>[ADD]</b>
Polyalkylalkenaminesuccinimide, molybdenum oxysulfide
<b>[REVISE]</b>
Potassium polysulfide (alternately polysulphide), Potassium thiosulfide (alternately thiosulphide) solution (41% or less)
2-Propene-1-aminium, N,N-dimethyl-N-2-propenyl-, chloride, homopolymer solution
<b>[ADD]</b>
Refrigerant gases
<b>[REVISE]</b>
Sodium chlorate solution (50% or less) <sup>1</sup>
Sodium dichromate solution (70% or less) <sup>1</sup>
Sodium hydrogen sulfide (alternately sulphide) (6% or less)/Sodium carbonate (3% or less) solution <sup>1</sup>
<b>[ADD]</b>
Sodium methoxide (25% in methanol)
Sodium methylate (21-30% in methanol)
Sodium sulfide (alternately sulphide)/Hydrosulfide (alternately Hydrosulphide) solution (H <sub>2</sub> S 15 ppm or less)
<b>[REVISE]</b>
Sodium sulfide (alternately sulphide), Hydrosulfide (alternately Hydrosulphide) solution (H <sub>2</sub> S greater than 15 ppm but less than 200 ppm) <sup>1</sup>
<b>[ADD]</b>
Sodium sulfide (alternately sulphide)/Hydrosulfide (alternately Hydrosulphide) solution (H <sub>2</sub> S greater than 200 ppm)
<b>[REVISE]</b>
Sodium thiocyanate solution (56% or less) <sup>1</sup>
Sulfur (alternately Sulphur) (molten)
<b>[ADD]</b>
Sulfur (alternately Sulphur) dioxide
<b>[REVISE]</b>
Tall oil fatty acid, barium salt <sup>1</sup>
Tetraethyl silicate monomer/oligomer (20% in ethanol)
Urea, Ammonium mono- and di-hydrogen phosphate/Potassium chloride solution
Wood lignin with Sodium acetate/oxalate
<b>1. NON-OXIDIZING MINERAL ACIDS</b>

<b>[REVISE]</b>
Di-(2-ethylhexyl) phosphoric acid
* * * * *
<b>[ADD]</b>
Hydrofluorosilicic acid (25% or less)
* * * * *
<b>[REVISE]</b>
Polyaluminum (alternately Polyaluminium) chloride solution
<b>2. SULFURIC (ALTERNATELY SULPHURIC) ACIDS</b>
<b>[REVISE]</b>
Sulfuric (alternately Sulphuric) acid <sup>1</sup>
Sulfuric (alternately sulphuric) acid, spent
* * * * *
<b>3. NITRIC ACIDS</b>
<b>[REVISE]</b>
Ferric nitrate/Nitric acid solution
Nitric acid (70% or less)
<b>4. ORGANIC ACIDS</b>
<b>[REVISE]</b>
Acetic acid <sup>1</sup>
Acrylic acid <sup>1</sup>
Butyric acid
Chloroacetic acid (80% or less)
2- or 3-Chloropropionic acid
Citric acid (70% or less)
Decanoic acid
2,2-Dichloropropionic acid
Dimethyl octanoic acid
Formic acid <sup>1</sup>
<b>[ADD]</b>
Formic acid (85% or less)
<b>[REVISE]</b>
Formic acid (over 85%)
Formic acid mixture (containing up to 18% Propionic acid and up to 25% Sodium formate)
Glycolic acid (70% or less)
Glyoxylic acid solution (50% or less)
n-Heptanoic acid
1,6-Hexanediol, distillation overheads
* * * * *
Long-chain alkyl (C13+) salicylic acid
Methacrylic acid
Naphthenic acid
Neodecanoic acid
Nonanoic acid (all isomers)
Nonanoic/Tridecanoic acid mixture
Octanoic acid (all isomers)
<b>[ADD]</b>

Oleic acid
<b>[REVISE]</b>
Pentanoic acid
n-Pentanoic acid (64%)/2-Methyl butyric acid (36%) mixture
Propionic acid
* * * * *
<b>5. CAUSTICS</b>
<b>[ADD]</b>
Aluminum (alternately Aluminium) hydroxide/sodium hydroxide/sodium carbonate solution (40% or less)
<b>[REVISE]</b>
Ammonium sulfide (alternately sulphide) solution (45% or less)
<b>[ADD]</b>
Calcium hydroxide slurry
<b>[REVISE]</b>
Calcium hypochlorite solution (15% or less)
Calcium hypochlorite solution (more than 15%)
Caustic potash solution <sup>1</sup>
Caustic soda solution <sup>1</sup>
Cresylic acid, sodium salt solution
<b>[ADD]</b>
1,4-Dihydro-9,10-dihydroxy anthracene, disodium salt solution
<b>[REVISE]</b>
Kraft black liquor
Kraft pulping liquors (free alkali content 3% or more) (Black, Green, or White)
<b>[ADD]</b>
Magnesium hydroxide slurry
<b>[REVISE]</b>
Mercaptobenzothiazol, sodium salt solution
<b>[ADD]</b>
2-Mercaptobenzothiazol (in liquid mixture)
<b>[REVISE]</b>
Potassium hydroxide solution <sup>1</sup>
<b>[ADD]</b>
Sodium acetate, Glycol, Water mixture (containing 1% or less Sodium hydroxide) (if non-flammable or non-combustible)
<b>[REVISE]</b>
Sodium acetate, Glycol, Water mixture (containing Sodium hydroxide)
* * * * *
<b>[ADD]</b>
Sodium aluminate solution (45% or less)
<b>[REVISE]</b>
Sodium borohydride (15% or less)/Sodium hydroxide solution
Sodium carbonate solutions
* * * * *
Sodium hydrosulfide (alternately hydrosulphide) solution (45% or less) <sup>1</sup>
Sodium hydrosulfide (alternately hydrosulphide)/Ammonium sulfide (alternately sulphide) solution <sup>1</sup>
Sodium hypochlorite solution (15% or less)
<b>[ADD]</b>
Sodium hypochlorite solution (20% or less)

* * * * *
<b>[REVISE]</b>
Triphenylborane (10% or less)/Caustic soda solution
* * * * *
Vanillin black liquor (free alkali content 3% or more)
<b>6. AMMONIA</b>
* * * * *
<b>[REVISE]</b>
Urea/Ammonium nitrate solution (containing 1% or more Ammonia)
<b>7. ALIPHATIC AMINES</b>
<b>[REVISE]</b>
Alkyl amine (C17+)
Alkyl (C12+) dimethylamine
* * * * *
Butylamine (all isomers)
Crude piperazine
* * * * *
Diethylamine <sup>1</sup>
Diethylenetriamine <sup>1</sup>
* * * * *
Di-n-propylamine
Dodecylamine/Tetradecylamine mixture
Dodecyldimethylamine/Tetradecyldimethylamine mixture
Ethoxylated tallow alkyl amine
Ethoxylated tallow alkyl amine, glycol mixture
Ethoxylated tallow amine (>95%)
Ethylamine <sup>1</sup>
Ethylamine solution (72% or less)
N-Ethylbutylamine
N-Ethylcyclohexylamine
Ethyleneamine EA 1302 <sup>1</sup>
Ethylenediamine <sup>1</sup>
2-Ethylhexylamine
N-Ethylmethylallylamine
<b>[ADD]</b>
Glycine, sodium salt solution
<b>[REVISE]</b>
Glyphosate solution (not containing surfactant)
Hexamethylenediamine (molten)
Hexamethylenediamine solution
Hexamethylenimine
Hexamethylenetetramine solutions
bis-(Hydrogenated tallow alkyl) methyl amines
Isophoronediamine
* * * * *
Isopropylamine (70% or less) solution
Long-chain alkyl amine
Long-chain polyetheramine in alkyl (C2-C4) benzenes
* * * * *
Methylamine solutions (42% or less)

[ADD]
2-Methyl-1,5-pentanediamine
Monoethylamine
[REVISE]
Morpholine <sup>1</sup>
* * * * *
Pentaethylenhexamine/Tetraethylenepentamine mixture
Phosphate esters, alkyl (C12-C14) amine
[ADD]
Piperazine (70% or less)
Piperazine (crude)
Piperazine, 68% solution
[REVISE]
Polyalkenyl succinic anhydride amine
Polyethylene polyamines <sup>1</sup>
Polyethylene polyamines (more than 50% C5-C20 Paraffin oil)
* * * * *
[ADD]
(Polyisobutene) amino products in aliphatic hydrocarbons
[REVISE]
Polyolefin amide alkeneamine/Molybdenum oxysulfide (alternately oxysulphide) mixture
Polyolefin amine (C17+)
Polyoxypropylenediamine (molecular weight 2000)
n-Propylamine
iso-Propylamine solution
[ADD]
Sodium N-methyl dithio carbamate solution
[REVISE]
Sulfohydrocarbon (alternately Sulphohydrocarbon), long-chain (C18+) alkylamine mixture
Tetraethylenepentamine <sup>1</sup>
* * * * *
Triethylenetetramine <sup>1</sup>
Trimethylamine solution (30% or less)
Trimethylhexamethylenediamine (2,2,4- and 2,4,4-)
<b>8. ALKANOLAMINES</b>
[REVISE]
Alkyl (C12-C16) propoxyamine ethoxylates
* * * * *
Aminoethyldiethanolamine/Aminoethylethanolamine solution
* * * * *
Diethylaminoethanol
Diisopropanolamine
Dimethylethanolamine <sup>1</sup>
* * * * *
Ethoxylated long-chain (C16+) alkyloxyalkanamine
* * * * *
Isopropanolamine solution
Linear alkyl (C12-C16) propoxyamine ethoxylates
* * * * *
[ADD]

Monoethanolamine
Monoisopropanolamine
[REVISE]
n-Propanolamine
Triethanolamine
Triisopropanolamine
<b>9. AROMATIC AMINES</b>
* * * * *
[ADD]
2,6-Diethylaniline
2,6-Dimethylaniline
Diphenylamine (molten)
* * * * *
2-Methyl-5-ethylpyridine
Methylpyridine
* * * * *
[ADD]
3-Methylpyridine
[REVISE]
4-Methylpyridine
N-Methyl-2-pyrrolidone <sup>1</sup>
* * * * *
o-Toluidine
<b>10. AMIDES</b>
* * * * *
[REVISE]
Alkenyl (C11+) amide
* * * * *
N,N-bis(2-Hydroxyethyl) oleamide
Octadecenoamide solution
[ADD]
Oleamide solution
[REVISE]
Organomolybdenum amide
* * * * *
Polyisobutenyl succinimide
[ADD]
Sulfurized (alternately Sulphurized) polyolefinamide
* * * * *
<b>11. ORGANIC ANHYDRIDES</b>
[REVISE]
Acetic anhydride
[ADD]
Alkenyl (C16-C20) succinic anhydride
[REVISE]
Alkyl succinic anhydride
Maleic anhydride
[ADD]

Maleic anhydride/sodium allylsulphonate copolymer solution
[REVISE]
Phthalic anhydride (molten)
* * * * *
<b>13. VINYL ACETATES</b>
* * * * *
[REVISE]
Vinyltoluene
<b>14. ACRYLATES</b>
[REVISE]
Butyl acrylate (all isomers)
Butyl methacrylate
Butyl/Decyl/Cetyl/Eicosyl methacrylate mixture
Cetyl/Eicosyl methacrylate mixture
* * * * *
Dodecyl/Octadecyl methacrylate mixture
Dodecyl/Pentadecyl methacrylate mixture
* * * * *
2-Hydroxyethyl acrylate <sup>1</sup>
* * * * *
Methacrylic resin in ethylene dichloride
* * * * *
Methyl methacrylate
Nonyl methacrylate monomer
Polyalkyl acrylate
Polyalkyl(C18-C22) acrylate in Xylene
Polyalkyl (C10-C20) methacrylate
Polyalkyl methacrylate in mineral oil
Polyalkyl (C10-C18) methacrylate/Ethylene-propylene copolymer mixture
<b>15. SUBSTITUTED ALLYLS</b>
[ADD]
Acrylonitrile <sup>1</sup>
[REVISE]
Allyl alcohol <sup>1</sup>
Allyl chloride
Dichloropropene (all isomers)
1,3-Dichloropropene
Dichloropropene/Dichloropropane mixtures
* * * * *
<b>16. ALKYLENE OXIDES</b>
[ADD]
Brominated Epoxy Resin in Acetone
[REVISE]
1,2-Butylene oxide
[ADD]
Diglycidyl ether of Bisphenol A

Diglycidyl ether of Bisphenol F
Epoxy resin
[REVISE]
Ethylene oxide/Propylene oxide mixture
* * * * *
<b>17. EPICHLOROHYDRINS</b>
[ADD]
Chlorohydrins
* * * * *
<b>18. KETONES</b>
[REVISE]
Acetone <sup>1</sup>
Acetophenone
Butyl heptyl ketone
Camphor oil (light)
1-(4-Chlorophenyl)-4,4-dimethyl pentan-3-one <sup>1</sup>
* * * * *
Cyclohexanone/Cyclohexanol mixtures
* * * * *
Ethyl amyl ketone
Isophorone
Ketone residue
Mesityl oxide <sup>1</sup>
Methyl amyl ketone
[ADD]
Methyl butyl ketone
Methyl ethyl ketone <sup>1</sup>
Methyl heptyl ketone
Methyl isoamyl ketone
Methyl isobutyl ketone <sup>1</sup>
Methyl propyl ketone
* * * * *
<b>19. ALDEHYDES</b>
* * * * *
[REVISE]
Acrolein <sup>1</sup>
* * * * *
Crotonaldehyde <sup>1</sup>
[ADD]
Crude isononylaldehyde
[REVISE]
Decaldehyde
[ADD]
n-Decaldehyde
[REVISE]
2-Ethyl-3-propylacrolein <sup>1</sup>
Formaldehyde (50% or more)/Methanol mixtures <sup>1</sup>
Formaldehyde solutions (37%-50%) <sup>1</sup>

[ADD]
Formaldehyde solutions (45% or less) <sup>1</sup>
[REVISE]
Furfural
Glutaraldehyde solutions (50% or less)
Glyoxal solution (40% or less)
[ADD]
Isodecaldehyde
Isononylaldehyde (crude)
[REVISE]
3-Methyl butyraldehyde
* * * * *
Propionaldehyde
Valeraldehyde (all isomers)
<b>20. ALCOHOLS, GLYCOLS</b>
[REVISE]
Acrylonitrile-Styrene copolymer dispersion in Polyether polyol
[ADD]
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
* * * * *
[REVISE]
Alcohol polyethoxylates, secondary
Alcoholic beverages, n.o.s.
Alcohols (C12+), primary, linear
[ADD]
Alcohols (C8-C11), primary, linear and essentially linear
[REVISE]
Alcohols (C12-C13), primary, linear and essentially linear
Alcohols (C14-C18), primary, linear and essentially linear
Alcohols (C13+):
Cetyl Alcohol (Hexadecanol)
Oleyl Alcohol (Octadecanol)
Pentadecanol
Tallow alcohol
Tetradecanol
Tridecanol
Amyl alcohol, primary
n-Amyl alcohol
sec-Amyl alcohol
tert-Amyl alcohol
* * * * *
Bio-fuel blends of Gasoline and Ethyl alcohol (>25% but <99% by volume)
Brake fluid base mix: Poly(2-8)alkylene (C2-C3) glycols/Polyalkylene (C2-C10) glycols monoalkyl (C1-C4) ethers and their borate esters
[ADD]
2-Butoxyethanol (58%)/Hyperbranched polyesteramide (42%) (mixture)
Butyl alcohol (all isomers) <sup>1</sup>

<b>[REVISE]</b>
Butylene glycol
Choline chloride solutions
<b>[ADD]</b>
Crude Isopropanol
<b>[REVISE]</b>
Cyclohexanol
Decyl alcohol (all isomers) <sup>1</sup>
Decyl/Dodecyl/Tetradecyl alcohol mixture
Diacetone alcohol <sup>1</sup>
2,2-Dimethylpropane-1,3-diol (molten or solution)
<b>[ADD]</b>
tert-Dodecanethiol <sup>1</sup>
<b>[REVISE]</b>
Dodecyl alcohol (all isomers)
Ethoxylated alcohols, C11-C15
Ethyl alcohol <sup>1</sup>
* * * * *
Ethylene glycol <sup>1</sup>
Furfuryl alcohol <sup>1</sup>
Glycerine <sup>1</sup>
Glycerine (83%)/Dioxanedimethanol (17%) mixture
<b>[ADD]</b>
Glycerol
<b>[REVISE]</b>
Glycerol monooleate
Glycol mixture, crude
Heptanol (all isomers)
<b>[ADD]</b>
Hexadecanol (Cetyl alcohol)
<b>[REVISE]</b>
Hexamethylene glycol
* * * * *
Hexylene glycol
Isoamyl alcohol
Isobutyl alcohol
Isopropyl alcohol
Methacrylic acid - Alkyloxypoly (alkylene oxide) methacrylate copolymer, sodium salt aqueous solution (45% or less)
3-Methoxy-1-butanol
Methyl alcohol <sup>1</sup>
* * * * *
alpha-Methylbenzyl alcohol with Acetophenone (15% or less)
<b>[ADD]</b>
Methyl butanol
<b>[REVISE]</b>
Methyl butenol
<b>[ADD]</b>
Methyl 3- (3,5 di-tert-butyl-4-hydroxyphenyl) propionate crude melt
<b>[REVISE]</b>
Methylbutynol
<b>[ADD]</b>
Methylcyclohexanemethanol (crude)
<b>[REVISE]</b>

2-Methyl-2-hydroxy-3-butyne
* * * * *
Molasses
Nonyl alcohol (all isomers) <sup>1</sup>
<b>[ADD]</b>
1-Octadecanol
Octadecenol (oleyl alcohol)
<b>[REVISE]</b>
Octanol (all isomers) <sup>1</sup>
Octyl alcohol <sup>1</sup>
Pentacos(oxypropane-2,3-diyl)s
Polyalkylene oxide polyol
Polybutadiene, hydroxyl terminated
Polyglycerine/Sodium salts solution (containing less than 3% Sodium hydroxide) <sup>1</sup>
Polyglycerol
Polyolefin amide alkeneamine polyol
n-Propyl alcohol <sup>1</sup>
Propylene glycol <sup>1</sup>
Sorbitol solution
Stearyl alcohol
<b>[ADD]</b>
Tallow alcohol
<b>[REVISE]</b>
Tallow fatty alcohol (C13+)
Trimethyl nonanol
Trimethylol propane polyethoxylated
* * * * *
<b>[ADD]</b>
Wine
<b>21. PHENOLS, CRESOLS</b>
<b>[ADD]</b>
Alkyl (C4-C9) phenols
<b>[REVISE]</b>
Alkylated (C4-C9) hindered phenols
* * * * *
Creosote <sup>1</sup>
Creosote (coal tar)
Creosote (wood tar)
Cresols (all isomers)
<b>[ADD]</b>
Cresols with 5% or more phenol
Cresols with less than 5% phenol
<b>[REVISE]</b>
Cresylic acid
* * * * *
Cresylic acid tar
<b>[ADD]</b>
Cresylic acid with 5% or more phenol
* * * * *
<b>[REVISE]</b>

2,4-Dichlorophenols
Di-tert-butylphenol
2,4-Di-tert-butylphenol
2,6-Di-tert-butylphenol
<b>[ADD]</b>
2,4-Dichlorophenol
<b>[REVISE]</b>
Dodecyl phenol
o-Ethyl phenol
Long-chain alkylphenate/Phenol sulfide (alternately sulphide) mixture
Methylene bridged isobutylenated phenols
Nonylphenol
Nonylphenol (48-62%)/Phenol (42-48%)/Dinonylphenol (1-10%) mixture
* * * * *
<b>[ADD]</b>
Tertiary butylphenols
* * * * *
<b>30. OLEFINS</b>
<b>[REVISE]</b>
Acrylic acid/ethenesulfonic (alternately ethenesulphonic) acid copolymer with phosphonate groups, sodium salt solution
Aryl polyolefin (C11-C50)
Butadiene (all isomers)
Butadiene/Butylene mixtures (containing Acetylenes)
Butene oligomer
Butylenes (all isomers)
1,5,9-Cyclododecatriene
Cyclopentadiene/Styrene/Benzene mixture
1,3-Cyclopentadiene dimer (molten)
Cyclopentene
Decene
Dicyclopentadiene, Resin Grade, 81-89%
* * * * *
Dodecene (all isomers)
Ethylene
Ethylidene norbornene <sup>1</sup>
Heptene (all isomers)
Hexene (all isomers)
Isoprene (all isomers)
<b>[ADD]</b>
Isoprene (part refined)
<b>[REVISE]</b>
Isoprene concentrate (Shell)
Latex (ammonia (1% or less)-inhibited)
<b>[ADD]</b>
d-Limonene
<b>[REVISE]</b>
Methyl acetylene/Propadiene mixture
Methyl butenes
Methylcyclopentadiene dimer
2-Methyl-1-pentene
4-Methyl-1-pentene

alpha-Methylstyrene
[ADD]
Mixed C4 Cargoes
[REVISE]
Myrcene
Nonene (all isomers)
1-Octadecene
Octene (all isomers)
[ADD]
Olefin-Alkyl ester copolymer (molecular weight 2000+)
[REVISE]
Olefin mixture (C7-C9) C8 rich, stabilized
[ADD]
Olefins (C13+, all isomers)
[REVISE]
alpha-Olefins (C6-C18) mixtures
1,3-Pentadiene
1,3-Pentadiene (greater than 50%), Cyclopentene and isomers, mixtures
Pentene (all isomers)
* * * * *
beta-Pinene
[ADD]
Piperylene concentrate
[REVISE]
Poly(4+)isobutylene (molecular weight >224)
[ADD]
Polyisobutylene (molecular weight ≤ 224)
[REVISE]
Polyolefin in mineral oil
Poly(5+)propylene
Propylene
* * * * *
Propylene dimer
Propylene tetramer
Propylene trimer
Propylene/Propane/MAPP gas mixture
Styrene monomer
* * * * *
Undecene
[ADD]
1-Undecene
<b>31. PARAFFINS</b>
[REVISE]
Alkanes (C10-C26) linear and branched (flash point > 60 °C)
Alkanes (C10-C26) linear and branched (flash point ≤ 60 °C)
Alkanes (C6-C9)
[ADD]
n-Alkanes (C9-C11)
n-Alkanes (C10+) (all isomers)
[REVISE]
iso- & cyclo-Alkanes (C10-C11)
iso- & cyclo-Alkanes (C12+)

Butane (all isomers)
<b>[ADD]</b>
Butane/Propane mixture
* * * * *
<b>[REVISE]</b>
Cyclopentane
Ethane
* * * * *
<b>[ADD]</b>
Ethylene-Propylene copolymer (in liquid mixtures)
Heptadecane (all isomers)
<b>[REVISE]</b>
Isopropylcyclohexane
Methane
* * * * *
2-Methyl pentane
Nonane (all isomers)
Octane (all isomers)
Paraffin wax
Pentane (all isomers)
Polyalpha olefins
Propane
Waxes: Paraffin
<b>32. AROMATIC HYDROCARBON MIXTURES</b>
<b>[REVISE]</b>
Alkyl acrylate-Vinyl pyridine copolymer in Toluene
Alkyl(C3-C4) benzenes:
Butylbenzenes
Cumene
Propylbenzenes
Alkyl (C5-C8) benzenes:
Amylbenzenes
Heptylbenzenes
Hexylbenzenes
Octylbenzenes
Alkyl (C9+) benzenes:
Decylbenzenes
Dodecylbenzenes
Nonylbenzenes
Tetradecylbenzenes
Tetrapropylbenzenes
Tridecylbenzenes
Undecylbenzenes
Alkylbenzene mixtures (containing at least 50% of Toluene)
Alkylbenzene, Alkylindane, Alkylindene mixture (each C12-C17)
Alkyl toluene
Alkyl (C18+) toluenes
Benzene
<b>[ADD]</b>
Benzene and mixtures having 10% Benzene or more
<b>[REVISE]</b>
Benzene hydrocarbon mixtures (containing Acetylenes) (having 10%

Benzene or more)
Benzene/Toluene/Xylene mixtures (having 10% Benzene or more)
* * * * *
Butyl toluene
C9 Resinfeed (DSM) <sup>1</sup>
p-Cymene
[ADD]
Detergent alkylate
[REVISE]
Diethylbenzene
* * * * *
Diisopropylnaphthalene
Diphenyl
Dodecyl xylene
* * * * *
Ethyl toluene
1-Hexadecylnaphthalene/1,4-bis (Hexadecyl) naphthalene mixture
1,n-Hexadecylnaphthalene (90%)/1,4-Di-n-(Hexadecyl) naphthalene (10%)
[ADD]
Hexylbenzenes
[REVISE]
Methyl naphthalene (molten)
Naphthalene (molten)
Naphthalene still residue
Parachlorobenzotrifluoride
1-Phenyl-1-xylyl ethane
Poly(2+) cyclic aromatics
Polyolefinamine in alkyl (C2-C4) benzenes
Polyolefinamine in aromatic solvent
Pyrolysis gasoline (containing Benzene)
Tetrahydronaphthalene
[ADD]
Tetramethylbenzene (all isomers)
[REVISE]
1,2,3,5-Tetramethylbenzene
Toluene
Triethylbenzene
Trimethylbenzene (all isomers)
Xylenes
Xylenes/Ethylbenzene (10% or more) mixture
<b>33. MISCELLANEOUS HYDROCARBON MIXTURES</b>
[REVISE]
Alachlor technical (90% or more)
Alkylbenzene sulfonic (alternately sulphonic) acid, sodium salt solution
Alkyl dithiothiadiazole (C6-C24)
Alkyl (C18-C28) toluenesulfonic (alternately toluenesulphonic) acid, Calcium salts, high overbase
Alkyl (C18-C28) toluenesulfonic (alternately toluenesulphonic) acid, Calcium salts, low overbase
[ADD]
Asphalt
Asphalt blending stocks, roofers flux

* * * * *
Aviation alkylates (C8 paraffins and isoparaffins BPT 95 to 120 °C)
<b>[REVISE]</b>
* * * * *
Bio-fuel blends of Diesel/gas oil and Alkanes (C10-C26), linear and branched with a flash point $\leq 60$ °C (>25% but <99% by volume)
Calcium sulfonate (alternately sulphonate)/Calcium carbonate/Hydrocarbon solvent mixture
Coal tar
<b>[ADD]</b>
Coal tar crude bases
<b>[REVISE]</b>
Coal tar distillate
Coal tar pitch (molten)
Coal tar, high temperature
Decahydronaphthalene
Diphenyl/Diphenyl ether mixture
Distillates, flashed feed stocks
* * * * *
Drilling mud (low toxicity) (if flammable or combustible)
* * * * *
Gasolines:
Automotive (containing not over 4.23 grams lead per gal.)
Aviation (containing not over 4.86 grams lead per gal.)
Casinghead (natural)
Polymer
Straight run
Jet Fuels:
JP-4
JP-5
JP-8
Kerosene
Mineral spirits
Naphtha:
Aromatic
Coal tar solvent
Heavy
Paraffinic
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, cracked
Gas, high pour
Gas, low pour
Gas, low sulfur (alternately sulphur)
Heartcut distillate
Lubricating
Mineral
Mineral seal
Motor
Neatsfoot
Penetrating
Pine
Residual
Road
Rosin
Spindle
Transformer
Turbine
Vacuum gas oil
Oxyalkylated alkyl phenol formaldehyde
Petrolatum
[ADD]
Petroleum wax
[REVISE]
Polybutene
[ADD]
Polyolefin (molecular weight 300+)
[REVISE]
Polyolefin amide alkeneamine (C17+)
Polyolefin amide alkeneamine (C28+)
* * * * *
Polyolefin amide alkeneamine in mineral oil
Polyolefinamine (C28-C250)
Sulfohydrocarbon (alternately Sulphohydrocarbon) (C3-C88)
Sulfurized (alternately Sulphurized) fat (C14-C20)
Sulfurized (alternately Sulphurized) polyolefinamide alkene (C28-C250) amine
Waxes: Petroleum
[ADD]
White spirit
[REVISE]
White spirit (low (15-20%) aromatic)
<b>34. ESTERS</b>
[REVISE]
Alkenyl (C8+) amine, Alkenyl (C12+) acid ester mixture
Alkyl dithiocarbamate (C19-C35)
Alkyl ester copolymer (C4-C20)
Alkyl ester copolymer in mineral oil
Alkyl (C7-C9) nitrates <sup>1</sup>

Alkyl (C8-C40) phenol sulfide (alternately sulphide)
Alkyl (C10-C20), (saturated and unsaturated) phosphite
Alkyl sulfonic (alternately sulphonic) acid ester of phenol
Alkyl (C18-C28) toluenesulfonic (alternately toluenesulphonic) acid, Calcium salts, borated
Alkylaryl phosphate mixtures (more than 40% Diphenyl tolyl phosphate, less than 0.02% ortho-isomer)
Amyl acetate (all isomers)
Amyl acid phosphate
Animal and Fish oils, n.o.s.:
Cod liver oil
Lanolin
Neatsfoot oil
Pilchard oil
Sperm oil
Animal and Fish acid oils and distillates, n.o.s.:
Animal acid oil
Fish acid oil
Lard acid oil
Mixed acid oil
Mixed general acid oil
Mixed hard acid oil
Mixed soft acid oil
Barium long-chain (C11-C50) alkaryl sulfonate (alternately sulphonate)
Barium long-chain alkyl (C8-C14) phenate sulfide (alternately sulphide)
Benzenetricarboxylic acid trioctyl ester
* * * * *
<b>[ADD]</b>
Bis (2-ethylhexyl) terephthalate
<b>[REVISE]</b>
Boronated calcium sulfonate (alternately sulphonate)
* * * * *
Butyl butyrate (all isomers)
n-Butyl formate
n-Butyl propionate
* * * * *
Calcium alkyl (C10-C28) salicylate
<b>[ADD]</b>
Calcium alkyl (C9) phenol sulfide (alternately sulphide), polyolefin phosphorosulfide (alternately phosphorosulphide) mixture
<b>[REVISE]</b>
Calcium carbonate slurry
Calcium long-chain alkaryl sulfonate (alternately sulphonate) (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 (alternately sulphide) (C8-C40)
Calcium long-chain alkyl (C18-C28) salicylate
Calcium nitrate solutions (50% or less)
Calcium nitrate/Magnesium nitrate/Potassium chloride solution
Calcium salts of fatty acids
Calcium stearate
Cobalt naphthenate in solvent naphtha
Copper salt of long-chain (C17+) alkanolic acid

Copper salt of long-chain (C3-C16) fatty acid
Cyclohexyl acetate
Decyl acetate
Dialkyl (C7-C13) phthalates:
Di-(2-ethylhexyl) phthalate
Diheptyl phthalate
Dihexyl phthalate
Diisooctyl phthalate
Dioctyl phthalate
Diisodecyl phthalate
Diisononyl phthalate
Dinonyl phthalate
Ditridecyl phthalate
Diundecyl phthalate
Dialkyl thiophosphates sodium salts solution
* * * * *
Dibutyl terephthalate
Di-(2-ethylhexyl) adipate
Di-(2-ethylhexyl) terephthalate
Diethylene glycol dibenzoate
Diethylene glycol phthalate
Diethyl phthalate
Diethyl sulfate (alternately sulphate)
* * * * *
Dimethyl hydrogen phosphite <sup>1</sup>
Dimethyl naphthalene sulfonic (alternately sulphonic) acid, sodium salt solution <sup>1</sup>
* * * * *
Dimethylpolysiloxane
* * * * *
Ditridecyl adipate
2-Dodecenylsuccinic acid, dipotassium salt solution
2-Ethoxyethyl acetate
* * * * *
S-Ethyl dipropylthiocarbamate
Ethylene carbonate
* * * * *
Ethylene glycol diacetate
Ethylene glycol methyl ether acetate
* * * * *
<b>[ADD]</b>
Ethyl hexyl tallate
<b>[REVISE]</b>
2-Ethyl-2-(hydroxymethyl) propane-1,3-diol (C8-C10) ester
<b>[ADD]</b>
Ethyl lactate
Ethyl propionate
Fatty acid methyl esters
Fatty acids (C8-C10)
Fatty acids (C12+)
Fatty acids (saturated, C13+)
Fatty acids (C16+)
Fatty acids, essentially linear (C6–C18) 2-ethylhexyl ester
<b>[REVISE]</b>

Glyceryl triacetate
Glycidyl ester of C10 trialkyl acetic acid
<b>[ADD]</b>
Glycidyl ester of tertiary carboxylic acid
<b>[REVISE]</b>
Glycidyl ester of tridecyl acetic acid
<b>[ADD]</b>
Glycidyl ester of Versatic acid
Glycol diacetate
Glycol triacetate
<b>[REVISE]</b>
Heptyl acetate
<b>[ADD]</b>
Herbicide (C15-H22-NO2-Cl)
<b>[REVISE]</b>
Hexyl acetate
<b>[ADD]</b>
Hog grease
* * * * *
Lauric acid methyl ester/Myristic acid methyl ester mixture
* * * * *
<b>[REVISE]</b>
Magnesium long-chain alkaryl sulfonate (alternately sulphonate) (C11-C50)
Magnesium long-chain alkyl phenate sulfide (alternately sulphide) (C8-C20)
Magnesium long-chain alkyl salicylate (C11+)
<b>[ADD]</b>
Magnesium nonyl phenol sulfide (alternately sulphide)
Magnesium sulfonate (alternately sulphonate)
* * * * *
<b>[REVISE]</b>
Methyl salicylate
<b>[ADD]</b>
N-(2-Methoxy-1-methyl ethyl)-2-ethyl-6-methyl chloroacetanilide
<b>[REVISE]</b>
Metolachlor
Naphthalene sulfonic (alternately sulphonic) acid, sodium salt solution
* * * * *
<b>[ADD]</b>
Nonyl phenol sulfide (90% or less) solution
* * * * *
Octyl nitrate
Octyl phthalate
<b>[REVISE]</b>
Oil, edible:
Beechnut
Castor
Cocoa butter
Coconut
Cod liver
Corn
Cotton seed
Fish
Grape seed
Groundnut

Hazelnut
Illipe
Lard
Maize
Mango kernel
Nutmeg butter
Olive
Palm
Palm kernel
Palm kernel olein
Palm kernel stearin
Palm mid fraction
Palm olein
Palm stearin
Peanut
Poppy
Poppy seed
Raisin seed
Rapeseed
Rapeseed, (low erucic acid containing less than 4% free fatty acids)
Rice bran
Safflower
Salad
Sesame
Shea butter
Soyabean
Sunflower
Sunflower seed
Tucum
Vegetable
Walnut
Oil, misc.:
Acid mixture from soyabean, corn (maize) and sunflower oil refining
Animal
Camelina
Cashew nut shell oil (untreated)
Coconut fatty acid
Coconut, fatty acid methyl ester
Cottonseed oil, fatty acid
Lanolin
Linseed
Oiticica
Palm acid
Palm fatty acid distillate
Palm oil, fatty acid methyl ester
Palm kernel acid
Palm kernel fatty acid distillate
Palm, non-edible industrial grade
Perilla
Pilchard
Rapeseed fatty acid methyl esters
Seal
Soapstock
Soyabean (epoxidized)

Soyabean fatty acid methyl ester
Tall
Tall, crude
Tall, distilled
Tall, fatty acid
Tall, fatty acid (resin acids less than 20%)
Tall pitch
Tung
n-Pentyl propionate
* * * * *
Poly (2-8)alkylene glycol monoalkyl (C1-C6) ether acetate:
Diethylene glycol butyl ether acetate
Diethylene glycol ethyl ether acetate
Diethylene glycol methyl ether acetate
[ADD]
Polycarboxylic ester (C9+)
[REVISE]
Polyferric sulfate (alternately sulphate) solution
[ADD]
Polymerized esters
[REVISE]
Polymethylsiloxane
Polyolefin aminoester salts (molecular weight 2000+)
Polyolefin ester (C28-C250)
Polyolefin phosphorosulfide (alternately phosphorusulphide), barium derivative (C28-C250)
Poly(20)oxyethylene sorbitan monooleate
* * * * *
Polysiloxane/White spirit, low (15-20%) aromatic
Potassium formate solutions
Potassium oleate
Potassium salt of polyolefin acid
n-Propyl acetate
* * * * *
Propylene glycol methyl ether acetate
Siloxanes
Sodium acetate solution
Sodium acetate/Glycol/Water mixture (not containing Sodium hydroxide)
Sodium alkyl (C14-C17) sulfonates (alternately sulphonates) 60-65% solution
[ADD]
Sodium aluminosilicate slurry
[REVISE]
Sodium benzoate
Sodium bicarbonate solution (less than 10%)
Sodium dimethyl naphthalene sulfonate (alternately sulphonate) solution <sup>2</sup>
Sodium long-chain alkyl salicylate (C13+)
Sodium naphthalene sulfonate (alternately sulphonate) solution
Sodium petroleum sulfonate (alternately sulphonate)
Sodium sulfate (alternately sulphate) solution
Tall oil soap, crude
Tallow
Tallow fatty acid
* * * * *

Tridecyl acetate
Triethylene glycol di-(2-ethylbutyrate)
Triethylene glycol dibenzoate
Triethyl phosphate
Triethyl phosphite <sup>1</sup>
Triisooctyl trimellitate <sup>1</sup>
Triisopropylated phenyl phosphates
Trimethyl phosphite <sup>1</sup>
2,2,4-Trimethyl-1,3-pentanediol diisobutyrate
* * * * *
2,2,4-Trimethyl-3-pentanol-1-isobutyrate
Trisodium nitrilotriacetate solution
* * * * *
Trixylenyl phosphate
Vegetable acid oils, n.o.s.:
Corn acid oil
Cottonseed acid oil
Dark mixed acid oil
Groundnut acid oil
Mixed acid oil
Mixed general acid oil
Mixed hard acid oil
Mixed soft acid oil
Rapeseed acid oil
Safflower acid oil
Soya acid oil
Sunflower seed acid oil
Vegetable fatty acid distillates, n.o.s.:
Palm kernel fatty acid distillate
Palm oil fatty acid distillate
Tall fatty acid distillate
Tall oil fatty acid distillate
Vegetable oils, n.o.s.:
Beechnut oil
Camelina oil
Cashew nut shell
Castor oil
Cocoa butter
Coconut oil
Corn oil
Cotton seed oil
Croton oil
Grape seed oil
Groundnut oil
Hazelnut oil
Illipe oil
Linseed oil
Mango kernel oil
Nutmeg butter
Oiticica oil
Olive oil
Palm kernel oil
Palm kernel olein
Palm kernel stearin

Palm mid fraction
Palm, non-edible industrial grade
Palm oil
Palm olein
Palm stearin
Peanut oil
Peel oil (oranges and lemons)
Perilla oil
Pine oil
Poppy seed oil
Poppy oil
Raisin seed oil
Rapeseed oil
Rapeseed (low erucic acid containing less than 4% free fatty acids)
Rice bran oil
Rosin oil
Safflower oil
Salad oil
Sesame oil
Shea butter
Soyabean oil
Sunflower seed oil
Tall
Tall, crude
Tall, distilled
Tall, pitch
Tucum oil
Tung oil
Walnut oil
Waxes:
Candelilla
Carnauba
* * * * *
<b>36. HALOGENATED HYDROCARBONS</b>
* * * * *
<b>[REVISE]</b>
Carbon tetrachloride <sup>1</sup>
Catoxid feedstock <sup>1</sup>
* * * * *
Chlorinated paraffins (C14-C17) (with 52% Chlorine)
Chlorinated paraffins (C18+) with any level of Chlorine
* * * * *
Dibromomethane
Dichlorobenzene (all isomers)
3,4-Dichloro-1-butene
Dichlorodifluoromethane
* * * * *
Dichloropropane
<b>[ADD]</b>
1,1-Dichloropropane
1,2-Dichloropropane
1,3-Dichloropropane

* * * * *
<b>[REVISE]</b>
Ethylene dichloride <sup>1</sup>
* * * * *
<b>[ADD]</b>
Methylene chloride
<b>[REVISE]</b>
Monochlorodifluoromethane
Pentachloroethane
Perchloroethylene
n-Propyl chloride
<b>[ADD]</b>
Sym-trichlorobenzene
Tetrachloroethane
* * * * *
1,2,3-Trichlorobenzol
<b>[REVISE]</b>
1,1,1-Trichloroethane <sup>1</sup>
* * * * *
Trichloroethylene <sup>1</sup>
1,1,2-Trichloro-1,2,2-trifluoroethane
1,2,3-Trichloropropane
<b>37. NITRILES</b>
* * * * *
<b>[REVISE]</b>
Tallow alkyl nitrile
<b>38. CARBON DISULFIDE (ALTERNATELY DISULPHIDE)</b>
<b>[REVISE]</b>
Carbon disulfide (alternately disulphide)
<b>39. SULFOLANE (ALTERNATELY SULPHOLANE)</b>
<b>[REVISE]</b>
Sulfolane (alternately Sulpholane)
<b>40. GLYCOL ETHERS</b>
<b>[REVISE]</b>
Alkyl (C7-C11) phenol poly(4-12) ethoxylates
Alkyl (C9-C15) phenyl propoxylate
Diethylene glycol <sup>1</sup>
Diethylene glycol dibutyl ether
Diethylene glycol diethyl ether
Diethylene glycol phenyl ether
Dipropylene glycol
<b>[ADD]</b>
2-Ethoxyethanol
* * * * *
Ethoxy triglycol (crude)
<b>[REVISE]</b>

Ethylene glycol dibutyl ether
Ethylene glycol monoalkyl ethers:
Ethylene glycol butyl ether
Ethylene glycol tert-butyl ether
Ethylene glycol ethyl ether
Ethylene glycol hexyl ether
Ethylene glycol isopropyl ether
Ethylene glycol methyl butyl ether
Ethylene glycol methyl ether
Ethylene glycol propyl ether
Ethylene glycol n-propyl ether
Ethylene glycol phenyl ether
Ethylene glycol phenyl ether/Diethylene glycol phenyl ether mixture
Glucitol/glycerol blend propoxylated (containing less than 10% amines)
Glycerol, ethoxylated
<b>[ADD]</b>
Glycerol polyalkoxylate
* * * * * * *
<b>[REVISE]</b>
Nonyl phenol poly(4+)ethoxylates
Pentaethylene glycol methyl ether
Polyalkylene glycols/Polyalkylene glycol monoalkyl ethers mixtures
Poly(2-8)alkylene glycol monoalkyl (C1-C6) ethers:
Diethylene glycol butyl ether
Diethylene glycol ethyl ether
Diethylene glycol n-hexyl ether
Diethylene glycol methyl ether
Diethylene glycol propyl ether
Dipropylene glycol butyl ether
Dipropylene glycol methyl ether
Polyalkylene glycol butyl ether
Polyethylene glycol monoalkyl ether
Polypropylene glycol methyl ether
Tetraethylene glycol methyl ether
Triethylene glycol butyl ether
Triethylene glycol ethyl ether
Triethylene glycol methyl ether
Tripropylene glycol methyl ether
Polyethylene glycol
* * * * * * *
Poly (ethylene glycol) methylbutenyl ether (molecular weight >1000)
Polypropylene glycol
Poly (tetramethylene ether) glycols (molecular weight 950-1050)
Polytetramethylene ether glycol
Propylene glycol monoalkyl ethers:
n-Propoxypropanol
Propylene glycol n-butyl ether
Propylene glycol ethyl ether
Propylene glycol methyl ether
Propylene glycol propyl ether
Propylene glycol phenyl ether
Tetraethylene glycol
Triethylene glycol
Triethylene glycol butyl ether mixture

Triethylene glycol ether mixture
Tripropylene glycol
<b>41. ETHERS</b>
<b>[REVISE]</b>
Alcohol (C12-C13, branched and linear) poly (4-8) propoxy sulfates (alternately sulphates), sodium salt 25-30% solution
Alkaryl polyethers (C9-C20)
* * * * *
n-Butyl ether
Dichloroethyl ether
2,2'-Dichloroisopropyl ether
<b>[ADD]</b>
Diethyl ether
Dimethyl ether
* * * * *
<b>[REVISE]</b>
Diphenyl ether/Diphenyl phenyl ether mixture
Ethyl tert-butyl ether <sup>1</sup>
* * * * *
Methyl-tert-butyl ether <sup>1</sup>
* * * * *
Methyl tert-pentyl ether
Polyether, borated
Polyether (molecular weight 1350+)
Polyether polyols
Poly(oxyalkylene) alkenyl ether (molecular weight >1000)
* * * * *
1,3,5-Trioxane
<b>42. NITROCOMPOUNDS</b>
* * * * *
<b>[REVISE]</b>
Dinitrotoluene (molten)
Nitrobenzene
<b>[ADD]</b>
o-Nitrochlorobenzene
* * * * *
<b>[REVISE]</b>
Nitroethane/1-Nitropropane (each 15% or more) mixture
Nitrophenol (mixed isomers)
Nitropropane (60%)/Nitroethane (40%) mixtures
<b>[ADD]</b>
1- or 2-Nitropropane
<b>[REVISE]</b>
o- or p-Nitrotoluenes
<b>43. MISCELLANEOUS WATER SOLUTIONS</b>
<b>[REVISE]</b>
Alkyl (C8-C10) polyglucoside solution (65% or less)

Alkyl (C8-C10)/(C12-C14):(40% or less/60% or more) polyglucoside solution (55% or less)
* * * * *
Alkyl (C8-C10)/(C12-C14):(60% or more/40% or less) polyglucoside solution (55% or less)
Alkyl (C12-C14) polyglucoside solution (55% or less)
Aluminum sulfate (alternately Aluminium sulphate) solution <sup>1</sup>
* * * * *
Ammonium bisulfite (alternately bisulphite) solution (70% or less) <sup>1</sup>
Ammonium chloride solution (less than 25%)
* * * * *
Ammonium sulfate (alternately sulphate) solution
<b>[ADD]</b>
Ammonium sulfate (alternately sulphate) solution (20% or less)
<b>[REVISE]</b>
Ammonium thiosulfate (alternately thiosulphate) solution (60% or less)
<b>[ADD]</b>
Apple juice
* * * * *
Cesium formate solution
* * * * *
<b>[REVISE]</b>
2,4-Dichlorophenoxyacetic acid, Triisopropanolamine salt solution <sup>1</sup>
Diethylenetriaminepentaacetic acid, pentasodium salt solution
Dodecyl diphenyl ether disulfonate (alternately disulphonate) solution
Drilling brines (containing Calcium, Potassium, or Sodium salts)
Drilling brines (containing Zinc salts)
Drilling brines, including: Calcium bromide solution, Calcium chloride solution, and Sodium chloride solution
Drilling mud (low toxicity) (if non-flammable or non-combustible)
Ethylenediaminetetracetic acid/tetrasodium salt solution
Ethylene-Vinyl acetate copolymer (emulsion)
Ferric hydroxyethylethylenediaminetriacetic acid, trisodium salt solution <sup>1</sup>
Fish solubles (water-based fish meal extracts)
* * * * *
<b>[ADD]</b>
Glucose solution
Hexamethylenediamine adipate (50% in water)
* * * * *
<b>[REVISE]</b>
N-(Hydroxyethyl)ethylenediamine triacetic acid, trisodium salt solution
<b>[ADD]</b>
Kaolin clay solution
<b>[REVISE]</b>
Kaolin slurry
Latex, liquid synthetic
Latex: Carboxylated Styrene-Butadiene copolymer; Styrene-butadiene rubber
<b>[ADD]</b>
Lauryl polyglucose
Lauryl polyglucose (50% or less)
* * * * *
<b>[REVISE]</b>
Ligninsulfonic (alternately Ligninsulphonic) acid, magnesium salt solution
<b>[ADD]</b>

Ligninsulfonic (alternately Ligninsulphonic) acid, sodium salt solution
* * * * *
<b>[ADD]</b>
Microsilica slurry
Milk
* * * * *
Pentasodium salt of Diethylenetriaminepentaacetic acid solution
Phenol solutions (2% or less)
* * * * *
Potassium chloride solution (10% or more)
<b>[REVISE]</b>
Potassium thiosulfate (alternately thiosulphate) (50% or less)
* * * * *
Sewage sludge
<b>[ADD]</b>
Silica slurry
Sludge, treated
* * * * *
<b>[REVISE]</b>
Sodium hydrogen sulfite (alternately sulphite) solution (45% or less)
Sodium lignosulfonate (alternately lignosulphonate) solution
<b>[ADD]</b>
<i>Sodium naphthalene sulfonate solution (40% or less), see Naphthalene sulphonic acid, sodium salt solution (40% or less)</i>
<i>Sodium naphthenate solution, see Naphthenic acid, sodium salt solution</i>
Sodium poly(4+)acrylate solution
<b>[REVISE]</b>
Sodium polyacrylate solution <sup>1</sup>
Sodium salt of Ferric hydroxyethylethylenediaminetriacetic acid solution
Sodium silicate solution <sup>1</sup>
Sodium sulfide (alternately sulphide) solution (15% or less)
Sodium sulfite (alternately sulphite) solution (25% or less)
Sodium tartrates/Sodium succinates solution
Sulfonated (alternately Sulphonated) polyacrylate solution <sup>1</sup>
* * * * *
Tetrasodium salt of ethylenediaminetetraacetic acid solution
* * * * *
<b>[ADD]</b>
Trisodium salt of N-(Hydroxyethyl)ethylenediaminetriacetic acid solution
<b>[REVISE]</b>
Urea solution
Urea/Ammonium nitrate solution (containing less than 1% free Ammonia)
Urea/Ammonium phosphate solution
Vegetable protein solution (hydrolyzed)
Water

Note:

1. See Appendix I to 46 CFR part 150 (Exceptions to the Chart).

9. Amend Appendix I to Part 150 by revising the table in paragraph (a) and revising paragraph (b) to read as follows:

## Appendix I to Part 150 – Exceptions to the Chart

(a) \* \* \*

Member of reactive group	Compatible with
Acetone (18)	Diethylenetriamine (7)
Acetone cyanohydrin (0)	Acetic acid (4)
	Acrylates (14)
	Alcohols, Glycols (20)
	Aldehydes (19)
	Aromatic Hydrocarbon Mixtures (32)
	Carbon Disulfide (alternately Disulphide) (38)
	Esters (34)
	Ethers (41)
	Glycol Ethers (40)
	Halogenated Hydrocarbons (36)
	Ketones (18)
	Miscellaneous Hydrocarbon Mixtures (33)
	Nitriles (37)
	Nitrocompounds (42)
	Olefins (30)
	Paraffins (31)
	Phenols, Cresols (21)
	Substituted Allyls (15)
	Sulfolane (alternately Sulpholane) (39)
	Vinyl Acetate (13)
	Vinyl Halides (35)
Acrylonitrile (15)	Triethanolamine (8)
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)	Bio-fuel blends of Gasoline and Ethyl alcohol (>25% but <99% by volume) (20)
	n-Butyl alcohol (20)
	Cetyl alcohol (Hexadecanol) (20)
	Ethyl alcohol (20)
	Ethylene glycol (20)
	Isobutyl alcohol (20)
	Isooctyl alcohol (20)
	Isopropyl alcohol (20)
	Methyl alcohol (20)
	Propylene glycol (20)
Caustic soda, 50% or less (5)	Acrylonitrile/Styrene copolymer dispersion in Polyether polyol (20)
	Alcohol (C12-C16) poly(1-6)ethoxylates (20)
	Bio-fuel blends of Gasoline and Ethyl alcohol (>25% but <99% by volume) (20)
	Butyl alcohol (20)
	tert-Butyl alcohol, Methanol mixtures (20)
	Cetyl alcohol (Hexadecanol) (20)
	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)
	Isobutyl alcohol (20)
	Isodecyl alcohol (20)
	Isononyl alcohol (20)
	Isopropyl alcohol (20)
	Isotridecanol (20)
	Methyl alcohol (20)
	Nonyl alcohol (20)
	Propyl alcohol (20)
	Propylene glycol (20)
	Sodium chlorate solution (0)
Dimethyl disulfide (0)	Acrylates (14)
	Alcohols, Glycols (20)
	Aromatic Hydrocarbon Mixtures (32)
	Esters (34)
	Halogenated Hydrocarbons (36)
	Ketones (18)
	Methyl tert-butyl ether (41)
	Olefins (30)
	Organic Acids (4)
	Organic Anhydrides (11)
	Paraffins (31)
	Phenols, Cresols (21)
Diphenylmethane diisocyanate (12)	2,2-Dimethylpropane-1,3-diol (20)
	Polypropylene glycol (40)
tert-Dodecanethiol (20)	Caustic soda solution (50%) (5)
	Isopropylamine solution (70%) (7)
	Polymethylene polyphenyl isocyanate (12)
	Toluene diisocyanate (12)
Dodecyl and Tetradecylamine mixture (7)	Tall oil, fatty acid (34)
Ethylenediamine (7)	Bio-fuel blends of Gasoline and Ethyl alcohol (>25% but <99% by volume) (20)
	Butyl alcohol (20)
	tert-Butyl alcohol (20)
	Butylene glycol (20)
	Creosote (21)
	Diethylene glycol (40)
	Diisobutyl ketone (18)
	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 ethyl ketone (18)

	Methyl isobutyl ketone (18)
	Propyl alcohol (20)
	Propylene glycol (20)
Lactic acid (0)	Acetic acid (4)
	Benzene (32)
	Ethanol (20)
	Polypropylene glycol (40)
	Vinyl acetate (13)
Oleum (0)	Hexane (31)
	Dichloromethane (36)
	Perchloroethylene (36)
1,2-Propylene glycol (20)	Diethylenetriamine (7)
	Polyethylene polyamines (7)
	Triethylenetetramine (7)
Sodium cresylate as Cresylate spent caustic (5)	Methyl alcohol (20)
Sodium dichromate solution (70% or less) (0)	Acetone (18)
	n-Butyl alcohol (20)
	Ethyl acetate (34)
	1-Hexene (30)
	Methyl alcohol (20)
	Octene (all isomers) (30)
	Phosphoric acid (1)
Sodium hydrosulfide (alternately hydrosulphide) solution (45% or less) (5)	Isopropyl alcohol (20)
	Methyl alcohol (20)
Sodium Methylate 21-30% in methanol (0)	1,2-Dichloropropane (36)
	Chlorobenzene (36)
	Cyclohexanone (18)
	Cyclohexanone, Cyclohexanol mixtures (18)
	Diethanolamine (8)
	Diisononyl phthalate (34)
	Dimethylformamide (10)
	Ethyl alcohol (20)
	Ethylene glycol (20)
	Furfuryl alcohol (20)
	Heptene (all isomers) (30)
	Isobutyl alcohol (20)
	Isopropyl alcohol (20)
	Lubricating oil (33)
	Methyl ethyl ketone (18)
	Nonene (all isomers) (30)
	Nonyl alcohol (all isomers) (20)
	Octene (all isomers) (30)
	Perchloroethylene (36)
	Polyisobutenamine in aliphatic (C10-C14) solvent (7)
	o-Toluidine (9)
	Xylene (32)
Sulfuric (alternately Sulphuric) acid (2)	Coconut oil (34)
	Coconut oil, fatty acid (34)

	Palm oil (34)
	Soyabean oil (34)
	Tallow (34)
Sulfuric (alternately Sulphuric) acid, 98% or less (2)	Choice white grease tallow (34)
Urea/Ammonium Nitrate solution (containing less than 1% free Ammonia) (43)	Magnesium chloride solutions (0)

(b) The binary combinations listed below have been determined to be dangerously reactive, based either on data obtained in the literature or on laboratory testing that has been carried out in accordance with procedures prescribed in Appendix III. These combinations are exceptions to Figure 1 of part 150 (Compatibility Chart) and may not be stowed in adjacent tanks.

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

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

Alkylbenzene sulfonic (alternately sulphonic) acid (less than 4%) (0) is not compatible with Groups 1-3, 5-9, 15, 16, 18, 19, 30, 34, 37, or strong oxidizers.

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

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

Ammonium bisulfite (alternately bisulphite) solution (70% or less) (43) is not compatible with Groups 1 or 3-5.

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

Butylene glycol (20) is not compatible with Caustic soda solution (5).

gamma-Butyrolactone (0) is not compatible with Groups 1-9. C9 Resinfeed (DSM) (32) is not compatible with Group 2, Sulfuric (alternately Sulphuric) Acids.

Carbon tetrachloride (36) is not compatible with Tetraethylenepentamine or Triethylenetetramine, both Group 7, Aliphatic Amines.

Catoxid feedstock (36) is not compatible with Groups 1-5, or 12.

Caustic soda solution (5) is not compatible with Butylene glycol (20).

1-(4-Chlorophenyl)-4,4-dimethyl pentan-3-one (18) is not compatible with Group 5, Caustics, or Group 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, Dimethylamine salt solution (70% or less) (0) is not compatible with Groups 1-5, 11, 12, or 16.

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

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

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

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

Dodecylbenzenesulfonic (alternately Dodecylbenzenesulphonic) acid (0) is not compatible with oxidizing agents or Groups 1-3, 5-9, 15, 16, 18, 19, 30, 34, or 37.

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

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 or 5-8.

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

Fatty acids, essentially linear (C6–C18) 2-ethylhexyl ester (34) is not compatible with Group 3, Nitric Acids.

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

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

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

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

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

1,6-Hexanediol distillation overheads (4) is not compatible with Group 3, Nitric Acids, or Group 9, Aromatic Amines.

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

Isophorone (18) is not compatible with Group 8, Alkanolamines. Lactic acid (0) is not compatible with Caustic soda solution (5).

Magnesium chloride solution (0) is not compatible with Groups 2, 3, 5, 6, or 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, Alkanolamines; or Group 9, Aromatic Amines.

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

Nitropropane (60%)/Nitroethane (40%) mixture (42) is not compatible with Group 7, Aliphatic Amines; Group 8, Alkanolamines; or Group 9, Aromatic Amines.

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

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

Polyglycerine, Sodium salts solution (containing less than 3% sodium hydroxide) (20) is not compatible with Groups 1, 4, 11, 16, 17, 19, 21, or 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, or with nitrogen dioxide, oxidizing agents, or molten sulfur (alternately sulphur) (0).

Sodium acetate, Glycol, Water mixture (containing 1% or less Sodium hydroxide) (5) 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, or 20.

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

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

Sodium hydrogen sulfide (alternately sulphide) (6% or less)/Sodium carbonate solution (3% or less) (0) is not compatible with Group 6, Ammonia, or Group 7, Aliphatic Amines.

Sodium hydrosulfide (alternately hydrosulphide) solution (45% or less) (5) is not compatible with Group 6, Ammonia, or Group 7, Aliphatic Amines.

Sodium hydrosulfide (alternately hydrosulphide), Ammonium sulfide (alternately sulphide) solution (5) is not compatible with Group 6, Ammonia, or Group 7, Aliphatic Amines.

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

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

Sodium sulfide, hydrosulfide (alternately sulphide, hydrosulphide) solution (0) is not compatible with Group 6, Ammonia, or Group 7, Aliphatic Amines.

Sodium thiocyanate (56% or less) (0) is not compatible with Groups 1-4. Sulfonated (alternately Sulphonated) polyacrylate solution (43) is not compatible with Group 5, Caustics.

Sulfuric (alternately Sulphuric) 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.

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

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

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

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 Group 1, Non-Oxidizing Mineral Acids, or Group 4, Organic Acids.

Trimethyl phosphite (34) is not compatible with Group 1, Non-Oxidizing Mineral Acids, or Group 4, Organic Acids.

1,3,5-Trioxane (41) is not compatible with Group 1, Non-Oxidizing Mineral Acids, or 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**

10. 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).

11. Amend Table 2 to Part 153 by revising the introductory text, the entries marked “[REVISE]”, and the notes at the end of the table 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-ocangoing 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
[REVISE]	
<b>Acrylic acid/ethenesulfonic (alternately ethenesulphonic) acid copolymer with phosphonate groups, sodium salt solution</b>	<b>Z</b>
Aluminum sulfate (alternately Aluminium sulphate) solution	Y
* * * * *	
Ammonium lignosulfonate (alternately lignosulphonate) solutions, <i>see also</i> Lignin liquor	Z
* * * * *	
Ammonium phosphate, urea solution, <i>see also</i> Urea/Ammonium phosphate solution	#
* * * * *	
Ammonium sulfate (alternately sulphate) solution	Z
Ammonium thiosulfate (alternately thiosulphate) solution (60% or less)	Z
* * * * *	
Calcium lignosulfonate (alternately lignosulphonate) solution, <i>see also</i> Lignin liquor	Z
<b>Calcium nitrate solutions (50% or less)</b>	<b>Z</b>
* * * * *	
<b>Chlorinated paraffins (C14–C17) (with 50% Chlorine or more, and less than 1% C13 or shorter chains)</b>	<b>X</b>
* * * * *	
4-Chloro-2-methylphenoxyacetic acid, dimethylamine salt solution	Y
* * * * *	
<i>Dextrose solution, see</i> Glucose solution	.....
Diethylenetriaminepentaacetic acid, pentasodium salt solution	<b>Z</b>
* * * * *	
Fish solubles (water-based fish meal extracts)	#
* * * * *	

Glyphosate solution (not containing surfactant)	Y
* * * * *	
Lignin liquor (free alkali content, 1% or less)	Z
<i>including:</i>	
Ammonium lignosulfonate (alternately lignosulphonate) solution	Z
Calcium lignosulfonate (alternately lignosulphonate) solution	Z
Sodium lignosulfonate (alternately lignosulphonate) solution	Z
Ligninsulfonic (alternately ligninsulphonic) acid, Sodium salt solution	Z
* * * * *	
Magnesium sulfonate (alternately sulphonate) solution	#
<b>Maltitol solution</b>	<b>OS</b>
<b>Microsilica slurry</b>	<b>OS</b>
* * * * *	
Naphthalenesulfonic (alternately Naphthalenesulphonic) acid-Formaldehyde copolymer, sodium salt solution	Z
* * * * *	
<b>Nitrilotriacetic acid, trisodium salt solution</b>	<b>Y</b>
Noxious liquid, NF, (1) n.o.s. (“trade name” contains “principal components”) ST 1, Cat X (if non-flammable and non-combustible)	X
Noxious liquid, NF, (3) n.o.s. (“trade name” contains “principal components”) ST 2, Cat X (if non-flammable and non-combustible)	X
Noxious liquid, NF, (5) n.o.s. (“trade name” contains “principal components”) ST 2, Cat Y (if non-flammable and non-combustible)	Y
Noxious liquid, NF, (7) n.o.s. (“trade name” contains “principal components”) ST 3, Cat Y (if non-flammable and non-combustible)	Y
Noxious liquid, NF, (9) n.o.s. (“trade name” contains “principal components”) ST 3, Cat Z (if non-flammable and non-combustible)	Z
Noxious liquid, NF, (11) n.o.s. (“trade name” contains “principal components”) Cat Z (if non-flammable and non-combustible)	Z
Noxious liquid, NF, (12) n.o.s. (“trade name” contains “principal components”) Cat OS (if non-flammable and non-combustible)	OS
<b>Orange juice (concentrated)</b>	<b>OS</b>
<b>Orange juice (not concentrated)</b>	<b>OS</b>
<i>Pentasodium salt of Diethylenetriaminepentaacetic acid solution, see Diethylenetriaminepentaacetic acid, pentasodium salt solution</i>	.....
Polyaluminum (alternately Polyaluminium) 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>	.....
<b>Potassium chloride solution (less than 26%)</b>	<b>OS</b>
Potassium formate solutions	Z
<b>Potassium thiosulfate (alternately thiosulphate) (50% or less)</b>	<b>Y</b>
* * * * *	
Sodium alkyl (C14–C17) sulfonates (alternately sulphonates) (60-65% solution)	Y

* * * * *	
<b>Sodium bicarbonate solution (less than 10%)</b>	<b>OS</b>
* * * * *	
<b>Sodium hydrogen sulfide (alternately sulphide) (6% or less)/Sodium carbonate (3% or less) solution</b>	<b>Z</b>
Sodium lignosulfonate (alternately lignosulphonate) solution, <i>see also</i> Lignin liquor	Z
<i>Sodium naphthenate solution (free alkali content 3% or less), see</i> Naphthenic acid, sodium salt solution	.....
Sodium poly(4+)acrylate solutions	Z
* * * * *	
Sodium sulfate (alternately sulphate) solutions	Z
<b>Sodium sulfite (alternately sulphite) solution (25% or less)</b>	<b>Y</b>
<b>Sodium thiocyanate solution (56% or less)</b>	<b>Y</b>
* * * * *	
Sulfonated (alternately Sulphonated) polyacrylate solution	Z
<i>Tetrasodium salt of Ethylenediaminetetraacetic acid solution, see</i> Ethylenediaminetetraacetic acid, tetrasodium salt solution	.....
* * * * *	
<i>Trisodium salt of N-(Hydroxyethyl)ethylenediaminetriacetic acid solution, see</i> N-(Hydroxyethyl)ethylenediaminetriacetic acid, trisodium salt solution.	.....
* * * * *	
Urea/Ammonium phosphate solution	Z
* * * * *	
Vanillin black liquor (free alkali content, 1% or less)	#
Vegetable protein solution (hydrolyzed) (if non-flammable and non-combustible)	OS
* * * * *	
<i>Zinc bromide, Calcium bromide solution, see</i> Drilling brines (containing Zinc salts)	.....

### Explanation of symbols and abbreviations used in this table:

“#” = No determination of noxious liquid substance status. For shipping on an oceangoing vessel, see 46 CFR 153.900(c).

**Bolded** entries were added from the March 2012 Annex to the 2007 edition of the IBC Code (MEPC 63/23/Add.1), the December 2012 IMO Marine Environmental Protection Committee Circular (MEPC.2/Circ.18), or the December 2013 IMO Marine Environmental Protection Committee Circular (MEPC.2/Circ.19).

“Cat” = Pollution category.

“NF” = Non-flammable (flash point greater than 60 °C (140 °F) closed cup).

“n.o.s.” = Not otherwise specified.

“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.

“see” = A redirection to the preferred, alternative cargo name—for example, in “*Tetrasodium salt of Ethylenediaminetetraacetic acid solution*, see Ethylenediaminetetraacetic acid, tetrasodium salt solution,” the pollution category for “Tetrasodium salt of Ethylenediaminetetraacetic acid solution” will be found under the preferred, alternative cargo name “Ethylenediaminetetraacetic acid, tetrasodium salt solution.”

“ST” = Ship type, as defined in Chapter 2 of the IBC Code.

“X, Y, Z” = Noxious liquid substance category of Annex II of MARPOL 73/78.

Dated: December 17, 2019.

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