

IMDG Code

2002 Edition

IMDG CODE IMDG CODE IMDG CODE IMDG CODE IMDG CODE **IMDG CODE** IMDG CODE

International Maritime Dangerous Goods Code

IMO

Volume

2



INTERNATIONAL
MARITIME
ORGANIZATION

IMDG Code

2002 Edition

**International
Maritime
Dangerous
Goods
Code**

including Amendment 31-02

volume **2**



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PART 3

DANGEROUS GOODS LIST
AND
LIMITED QUANTITIES EXCEPTIONS

Chapter 3.1

General

3.1.1 Scope and general provisions

- 3.1.1.1** The Dangerous Goods List in chapter 3.2 lists many of the dangerous goods most commonly transported. The list includes entries for specific chemical substances and articles and generic or "not otherwise specified" entries. Since it is not practical to include a separate entry for every chemical substance or article of commercial importance specifically by name, especially names for mixtures and solutions of various chemical constituents and concentrations, the Dangerous Goods List also includes generic or "not otherwise specified" names (e.g. EXTRACTS, FLAVOURING, LIQUID, UN 1197 or FLAMMABLE LIQUID, N.O.S., UN 1993). On this basis, the Dangerous Goods List is intended to include an appropriate name or entry for any dangerous good which may be transported.
- 3.1.1.2** Where a dangerous good is specifically listed by name in the Dangerous Goods List, it shall be transported in accordance with the provisions in the List which are appropriate for that dangerous good. A generic or "not otherwise specified" entry may be used to permit the transport of substances, materials or articles which do not appear specifically by name in the Dangerous Goods List. Such a dangerous good may be transported only after its dangerous properties have been determined. Dangerous goods shall be classified according to the class definitions, tests and criteria. The name which most appropriately describes the dangerous goods shall be used. Only when the specific name of the dangerous goods does not appear in the Dangerous Goods List or the associated primary or subsidiary hazards assigned to it are not appropriate may a generic or "not otherwise specified" name be used. The classification shall be made by the shipper/consignor or by the appropriate competent authority where so specified in the Code. Once the class of the dangerous good has been so established, all conditions for transport, as provided in this Code, shall be met. Any dangerous good having or suspected of having explosive characteristics shall first be considered for inclusion in class 1. Some collective entries may be of the generic or "not otherwise specified" type provided that the Code contains provisions ensuring safety, both by excluding extremely dangerous goods from normal transport and by covering all subsidiary risks inherent in some goods.
- 3.1.1.3** Inherent instability in goods may take different dangerous forms, for example explosion, polymerization with intense evolution of heat or emission of flammable, toxic, corrosive or asphyxiant gases. The Dangerous Goods List indicates that certain dangerous goods, or dangerous goods in a specific form, concentration or state, are prohibited for transport by sea. This means that the goods specified are not suitable for transport by sea under normal conditions of transport. This does not mean that such goods may not be transported under any circumstances. For most goods, such inherent instability can be controlled by suitable packaging, dilution, stabilization, addition of an inhibitor, temperature control or other measures.
- 3.1.1.4** Where precautionary measures are laid down in the Dangerous Goods List in respect of a given dangerous good (such as that it shall be "stabilized" or "with x% water or phlegmatizer"), such dangerous good may not normally be transported when these measures have not been taken, unless the item in question is listed elsewhere (such as class 1) without any indication of, or with different, precautionary measures.
- 3.1.1.5** Certain substances, by the nature of their chemical composition, tend to polymerize or otherwise react in a dangerous manner under certain conditions of temperature or in contact with a catalyst. Mitigation of this tendency can be carried out either by requiring special transport conditions or by adding adequate amounts of chemical inhibitors or stabilizers to the product. These products shall be sufficiently stabilized to prevent any dangerous reaction during the intended voyage. If this cannot be ensured, the transport of such products is prohibited.
- 3.1.1.6** Where the contents of a portable tank is to be transported heated, the transport temperature is to be maintained during the intended voyage unless it is established that crystallization or solidification on cooling would not result in instability, which can occur with some stabilized or inhibited products.

3.1.2 Proper Shipping Names

Note 1: The Proper Shipping Names of the dangerous goods are those listed in chapter 3.2, Dangerous Goods List. Synonyms, secondary names, initials, abbreviations of names, etc. have been included in the Index to facilitate the search for the Proper Shipping Name (see Part 5, Consignment Procedures). Where, in this Code, the term "Proper Shipping Name" is used, it is the "correct technical name" required by regulation 4 of Annex III of MARPOL 73/78, as amended.

Note 2: For Proper Shipping Names to be used for dangerous goods shipped as limited quantities, see 3.4.5 and 3.4.6.

Note 3: For Proper Shipping Names to be used for transport of samples, see 2.0.4. For Proper Shipping Names to be used for transport of wastes, see 5.4.1.4.3.3.

3.1.2.1 The Proper Shipping Name is that portion of the entry most accurately describing the goods in the Dangerous Goods List, which is shown in upper-case characters (plus any numbers, Greek letters, 'sec', 'tert', and the letters *m*, *n*, *o*, *p*, which form an integral part of the name). An alternative Proper Shipping Name may be shown in brackets following the main Proper Shipping Name (such as ETHANOL (ETHYL ALCOHOL)). Portions of an entry appearing in lower case need not be considered as part of the Proper Shipping Name but may be used.

3.1.2.2 When conjunctions such as "and" or "or" are in lower case or when segments of the name are punctuated by commas, the entire name of the entry need not necessarily be shown in the transport document or package markings. This is the case particularly when a combination of several distinct entries are listed under a single UN Number. Examples illustrating the selection of the Proper Shipping Name for such entries are:

.1 UN 1057 LIGHTERS or LIGHTER REFILLS – The Proper Shipping Name is the most appropriate of the following possible combinations:

LIGHTERS

LIGHTER REFILLS;

.2 UN 2583 ALKYL SULPHONIC or ARYL SULPHONIC ACIDS, SOLID with more than 5% free sulphuric acid – The Proper Shipping Name is the most appropriate of the following:

ALKYL SULPHONIC ACIDS, SOLID

ARYL SULPHONIC ACIDS, SOLID;

.3 UN 3207 ORGANOMETALLIC COMPOUND or COMPOUND SOLUTION or COMPOUND DISPERSION, WATER-REACTIVE, FLAMMABLE, N.O.S. – The Proper Shipping Name is the most appropriate of the following possible combinations:

ORGANOMETALLIC COMPOUND, WATER-REACTIVE, FLAMMABLE, N.O.S.

ORGANOMETALLIC COMPOUND SOLUTION, WATER-REACTIVE, FLAMMABLE, N.O.S.

ORGANOMETALLIC COMPOUND DISPERSION, WATER-REACTIVE, FLAMMABLE, N.O.S.

each supplemented with the technical name of the goods (see 3.1.2.8.1).

3.1.2.3 Proper Shipping Names may be used in the singular or plural as appropriate. In addition, when qualifying words are used as part of the Proper Shipping Name, their sequence on documentation or packages is optional. Commercial or military names for goods of class 1, which contain the Proper Shipping Name supplemented by additional text, may be used.

3.1.2.4 Where it is not already included, the qualifying word "LIQUID" or "SOLID", as appropriate, shall be added to the Proper Shipping Name of a substance which, due to the differing physical states of the various isomers of the substance, could be either liquid or solid (see 1.2.1 for definitions of *liquids* and *solids*).

3.1.2.5 Where it is not already included, the qualifying word "MOLTEN" shall be added to the Proper Shipping Name when a substance which is solid in accordance with the definition in 1.2.1 is offered for transport in the molten state (such as ALKYLPHENOL, SOLID, N.O.S., MOLTEN). For elevated temperature substances, see 5.4.1.4.3.4.

3.1.2.6 Except for self-reactive substances and organic peroxides and unless it is already included in capital letters in the name indicated in the Dangerous Goods List, the word STABILIZED shall be added as part of the Proper Shipping Name of the substance which without stabilization would be forbidden from transport in accordance with 1.1.4 due to it being liable to dangerously react under conditions normally encountered in transport (such as TOXIC LIQUID, ORGANIC, N.O.S., STABILIZED). When temperature control is used to stabilize such substances to prevent the development of any dangerous excess pressure, then:

.1 For liquids: where the SADT is less than 50°C, the provisions of 7.7.5 shall apply;

.2 For gases: the conditions of transport shall be approved by the competent authority.

3.1.2.7 Hydrates may be included under the Proper Shipping Name for the anhydrous substance.

3.1.2.8 Generic or “not otherwise specified” (N.O.S.) entries

3.1.2.8.1 Generic and “not otherwise specified” Proper Shipping Names that are assigned to special provision 274 in column 6 of the Dangerous Goods List shall be supplemented with their technical or chemical group names unless a national law or international convention prohibits its disclosure if it is a controlled substance. For explosives of class 1, the dangerous goods description may be supplemented by additional descriptive text to indicate commercial or military names. Technical and chemical group names shall be entered in brackets immediately following the Proper Shipping Name. An appropriate modifier, such as “contains” or “containing” or other qualifying words such as “mixture”, “solution”, etc., and the percentage of the technical constituent may also be used. For example: “UN 1993 Flammable liquid, n.o.s. (contains xylene and benzene), 3, PG II”.

3.1.2.8.1.1 The technical name shall be a recognized chemical or other name currently used in scientific and technical handbooks, journals and texts. Trade names shall not be used for this purpose. In the case of pesticides, only ISO common name(s), other name(s) in the WHO Recommended Classification or Pesticides by Hazard and Guidelines to Classification, or the name(s) of the active substance(s) may be used.

3.1.2.8.1.2 When a mixture of dangerous goods is described by one of the “N.O.S.” or “generic” entries to which special provision 274 has been allocated in the Dangerous Goods List, not more than the two constituents which most predominantly contribute to the hazard or hazards of a mixture need to be shown, excluding controlled substances when their disclosure is prohibited by national law or international convention. If a package containing a mixture is labelled with any subsidiary risk label, one of the two technical names shown in brackets shall be the name of the constituent which compels the use of the subsidiary risk label.

3.1.2.8.1.3 If a package contains a marine pollutant, the recognized chemical name of the marine pollutant needs to be shown.

3.1.2.8.1.4 Examples illustrating the selection of the Proper Shipping Name supplemented with the technical name of goods for such N.O.S. entries are:

UN 2003 METAL ALKYL, WATER-REACTIVE, N.O.S. (trimethylgallium)

UN 2902 PESTICIDE, LIQUID, TOXIC, N.O.S. (drazoxolon).

3.1.3 Mixtures and solutions containing one dangerous substance

3.1.3.1 A mixture or solution containing one dangerous substance identified by name in the Dangerous Goods List and one or more non-dangerous substances shall be shipped in accordance with the provisions for the dangerous substance except when:

- .1 the mixture or solution is specifically listed elsewhere in this Code; or
- .2 the entry in this Code for the dangerous substance specifically indicates that it applies only to the pure or technically pure substance; or
- .3 the class, physical state or packing group of the mixture or solution is not the same as that of the dangerous substance; or
- .4 there is a significant change in the measures to be taken in an emergency.

3.1.3.2 For mixtures and solutions subject to 3.1.3.1, the qualifying word “SOLUTION” or “MIXTURE”, as appropriate, shall be part of the Proper Shipping Name, such as “ACETONE SOLUTION”, “BUTANE MIXTURE”. In addition, the concentration of the solution or mixture may also be indicated, such as “ACETONE 75% SOLUTION”.

3.1.3.3 A mixture or solution containing one or more substances identified by name in this Code or classified under a N.O.S. entry and one or more substances is not subject to the provisions of this Code if the hazard characteristics of the mixture or solution are such that they do not meet the criteria (including human experience criteria) for any class.

3.1.4 Segregation groups

3.1.4.1 For the purpose of segregation, dangerous goods having certain similar chemical properties have been grouped together in segregation groups, see 7.2.1. Where, in the Dangerous Goods List entry in column 16 (stowage and segregation), a particular segregation requirement refers to a group of substances, the particular segregation requirement applies to the goods allocated to the respective segregation group.

3.1.4.2 It is recognized that not all substances falling within a segregation group are listed in the IMDG Code by name. These substances are shipped under N.O.S. entries. Although these N.O.S. entries are not listed themselves in the above groups, the shipper shall decide, based on assimilation, whether inclusion under the segregation group is appropriate. Mixtures, solutions or preparations containing substances falling within a segregation group and shipped under an N.O.S. entry are considered to fall within that segregation group.

3.1.4.3 The segregation groups in this Code do not cover substances which fall outside the classification criteria of the Code. It is recognized that some non-hazardous substances have similar chemical properties as substances listed in the segregation groups. A shipper or the person responsible for packing the goods into a cargo transport unit who does have knowledge of the chemical properties of such non-dangerous goods may decide to implement the segregation provisions of a related segregation group on a voluntary basis.

3.1.4.4 The following segregation groups are identified.

1 Acids

| | |
|------|---|
| 1052 | Hydrogen fluoride, anhydrous |
| 1182 | Ethyl chloroformate |
| 1183 | Ethyldichlorosilane |
| 1238 | Methyl chloroformate |
| 1242 | Methyldichlorosilane |
| 1295 | Trichlorosilane |
| 1572 | Cacodylic acid |
| 1595 | Dimethyl sulphate |
| 1715 | Acetic anhydride |
| 1716 | Acetyl bromide |
| 1718 | Butyl acid phosphate |
| 1722 | Allyl chloroformate |
| 1724 | Allyltrichlorosilane, stabilized |
| 1725 | Aluminium bromide, anhydrous |
| 1726 | Aluminium chloride, anhydrous |
| 1727 | Ammonium hydrogendifluoride, solid |
| 1728 | Amyltrichlorosilane |
| 1729 | Anisoyl chloride |
| 1730 | Antimony pentachloride, liquid |
| 1731 | Antimony pentachloride solution |
| 1732 | Antimony pentafluoride |
| 1733 | Antimony trichloride |
| 1736 | Benzoyl chloride |
| 1737 | Benzyl bromide |
| 1738 | Benzyl chloride |
| 1739 | Benzyl chloroformate |
| 1740 | Hydrogendifluorides, n.o.s. |
| 1742 | Boron trifluoride acetic acid complex |
| 1743 | Boron trifluoride propionic acid complex |
| 1744 | Bromine or bromine solution |
| 1747 | Butyltrichlorosilane |
| 1750 | Chloroacetic acid solution |
| 1751 | Chloroacetic acid, solid |
| 1752 | Chloroacetyl chloride |
| 1753 | Chlorophenyltrichlorosilane |
| 1754 | Chlorosulphonic acid (with or without sulphur trioxide) |
| 1755 | Chromic acid solution |
| 1756 | Chromic fluoride, solid |
| 1757 | Chromic fluoride solution |

| | |
|------|---|
| 1758 | Chromium oxychloride |
| 1762 | Cyclohexenyltrichlorosilane |
| 1763 | Cyclohexyltrichlorosilane |
| 1764 | Dichloroacetic acid |
| 1765 | Dichloroacetyl chloride |
| 1766 | Dichlorophenyltrichlorosilane |
| 1767 | Diethyldichlorosilane |
| 1768 | Difluorophosphoric acid, anhydrous |
| 1769 | Diphenyldichlorosilane |
| 1771 | Dodecyltrichlorosilane |
| 1773 | Ferric chloride, anhydrous |
| 1775 | Fluoroboric acid |
| 1776 | Fluorophosphoric acid, anhydrous |
| 1777 | Fluorosulphonic acid |
| 1778 | Fluorosilicic acid |
| 1779 | Formic acid |
| 1780 | Fumaryl chloride |
| 1781 | Hexadecyltrichlorosilane |
| 1782 | Hexafluorophosphoric acid |
| 1784 | Hexyltrichlorosilane |
| 1786 | Hydrofluoric acid and sulphuric acid mixture |
| 1787 | Hydriodic acid |
| 1788 | Hydrobromic acid |
| 1789 | Hydrochloric acid |
| 1790 | Hydrofluoric acid |
| 1792 | Iodine monochloride |
| 1793 | Isopropyl acid phosphate |
| 1794 | Lead sulphate with more than 3% free acid |
| 1796 | Nitrating acid mixture |
| 1799 | Nonyltrichlorosilane |
| 1800 | Octadecyltrichlorosilane |
| 1801 | Octyltrichlorosilane |
| 1802 | Perchloric acid with not more than 50% acid, by mass |
| 1803 | Phenolsulphonic acid, liquid |
| 1804 | Phenyltrichlorosilane |
| 1805 | Phosphoric acid |
| 1806 | Phosphorus pentachloride |
| 1807 | Phosphorus pentoxide |
| 1808 | Phosphorus tribromide |
| 1809 | Phosphorus trichloride |
| 1810 | Phosphorus oxychloride |
| 1811 | Potassium hydrogendifluoride, solid |
| 1816 | Propyltrichlorosilane |
| 1817 | Pyrosulphuryl chloride |
| 1818 | Silicon tetrachloride |
| 1826 | Nitrating acid mixture, spent |
| 1827 | Stannic chloride, anhydrous |
| 1828 | Sulphur chlorides |
| 1829 | Sulphur trioxide, inhibited or sulphur trioxide, stabilized |
| 1830 | Sulphuric acid with more than 51% acid |

| | |
|------|---|
| 1831 | Sulphuric acid, fuming |
| 1832 | Sulphuric acid, spent |
| 1833 | Sulphurous acid |
| 1834 | Sulphuryl chloride |
| 1836 | Thionyl chloride |
| 1837 | Thiophosphoryl chloride |
| 1838 | Titanium tetrachloride |
| 1839 | Trichloroacetic acid |
| 1840 | Zinc chloride solution |
| 1848 | Propionic acid |
| 1898 | Acetyl iodide |
| 1902 | Diisooctyl acid phosphate |
| 1905 | Selenic acid |
| 1906 | Sludge acid |
| 1938 | Bromoacetic acid |
| 1939 | Phosphorus oxybromide |
| 1940 | Thioglycolic acid |
| 2031 | Nitric acid, other than red fuming |
| 2032 | Nitric acid, red fuming |
| 2214 | Phthalic anhydride with more than 0.05% of maleic anhydride |
| 2215 | Maleic anhydride |
| 2218 | Acrylic acid, inhibited |
| 2225 | Benzenesulphonyl chloride |
| 2226 | Benzotrichloride |
| 2240 | Chromosulphuric acid |
| 2262 | Dimethylcarbamoyl chloride |
| 2267 | Dimethyl thiophosphoryl chloride |
| 2305 | Nitrobenzenesulphonic acid |
| 2308 | Nitrosylsulphuric acid |
| 2331 | Zinc chloride, anhydrous |
| 2407 | Isopropyl chloroformate |
| 2434 | Dibenzylchlorosilane |
| 2435 | Ethylphenyldichlorosilane |
| 2437 | Methylphenyldichlorosilane |
| 2438 | Trimethylacetyl chloride |
| 2439 | Sodium hydrogendifluoride |
| 2440 | Stannic chloride pentahydrate |
| 2442 | Trichloroacetyl chloride |
| 2443 | Vanadium oxytrichloride |
| 2444 | Vanadium tetrachloride |
| 2475 | Vanadium trichloride |
| 2496 | Propionic anhydride |
| 2502 | Valeryl chloride |
| 2503 | Zirconium tetrachloride |
| 2506 | Ammonium hydrogen sulphate |
| 2507 | Chloroplatinic acid, solid |
| 2508 | Molybdenum pentachloride |
| 2509 | Potassium hydrogen sulphate |
| 2511 | 2-chloropropionic acid |
| 2513 | Bromoacetyl bromide |

| | |
|------|---|
| 2531 | Methacrylic acid, inhibited |
| 2564 | Trichloroacetic acid solution |
| 2571 | Alkylsulphuric acids |
| 2576 | Phosphorus oxybromide, molten |
| 2577 | Phenylacetyl chloride |
| 2578 | Phosphorus trioxide |
| 2580 | Aluminium bromide solution |
| 2581 | Aluminium chloride solution |
| 2582 | Ferric chloride solution |
| 2583 | Alkylsulphonic acids, solid or arylsulphonic acids, solid with more than 5% free sulphuric acid |
| 2584 | Alkylsulphonic acids, liquid or arylsulphonic acids, liquid with more than 5% free sulphuric acid |
| 2585 | Alkylsulphonic acids, solid or arylsulphonic acids, solid with not more than 5% free sulphuric acid |
| 2586 | Alkylsulphonic acids, liquid or arylsulphonic acids, liquid with not more than 5% free sulphuric acid |
| 2604 | Boron trifluoride diethyl etherate |
| 2642 | Fluoroacetic acid |
| 2670 | Cyanuric chloride |
| 2691 | Phosphorus pentabromide |
| 2692 | Boron tribromide |
| 2698 | Tetrahydrophthalic anhydrides with more than 0.05% of maleic anhydride |
| 2699 | Trifluoroacetic acid |
| 2739 | Butyric anhydride |
| 2740 | <i>n</i> -Propyl chloroformate |
| 2742 | Chloroformates, toxic, corrosive, flammable, n.o.s. |
| 2743 | <i>n</i> -Butyl chloroformate |
| 2744 | Cyclobutyl chloroformate |
| 2745 | Chloromethyl chloroformate |
| 2746 | Phenyl chloroformate |
| 2748 | 2-Ethylhexyl chloroformate |
| 2751 | Diethylthiophosphoryl chloride |
| 2789 | Acetic acid, glacial or acetic acid solution, more than 80% acid, by mass |
| 2790 | Acetic acid solution, more than 10% but not more than 80% acid, by mass |
| 2796 | Sulphuric acid with not more than 51% acid or battery fluid, acid |
| 2798 | Phenylphosphorus dichloride |
| 2799 | Phenylphosphorus thiodichloride |
| 2802 | Copper chloride |
| 2812 | Sodium aluminate, solid |
| 2817 | Ammonium hydrogendifluoride solution |
| 2819 | Amyl acid phosphate |
| 2820 | Butyric acid |
| 2823 | Crotonic acid |
| 2826 | Ethyl chlorothioformate |
| 2829 | Caproic acid |
| 2834 | Phosphorous acid |
| 2851 | Boron trifluoride dihydrate |
| 2865 | Hydroxylamine sulphate |
| 2869 | Titanium trichloride mixture |
| 2879 | Selenium oxychloride |
| 2967 | Sulphamic acid |
| 2985 | Chlorosilanes, flammable, corrosive, n.o.s. |

| | |
|------|---|
| 2986 | Chlorosilanes, corrosive, flammable, n.o.s. |
| 2987 | Chlorosilanes, corrosive, n.o.s. |
| 2988 | Chlorosilanes, water-reactive, flammable, corrosive, n.o.s. |
| 3093 | Corrosive liquid, oxidizing, n.o.s. |
| 3246 | Methanesulphonyl chloride |
| 3250 | Chloroacetic acid, molten |
| 3260 | Corrosive solid, acidic, inorganic, n.o.s. |
| 3261 | Corrosive solid, acidic, organic, n.o.s. |
| 3264 | Corrosive liquid, acidic, inorganic, n.o.s. |
| 3265 | Corrosive liquid, acidic, organic, n.o.s. |
| 3277 | Chloroformates, toxic, corrosive, n.o.s. |

2 Ammonium compounds

| | |
|------|---|
| 0222 | Ammonium nitrate, with more than 0.2% combustible substances |
| 0223 | Ammonium nitrate fertilizer |
| 1310 | Ammonium picrate, wetted with not less than 10% water, by mass |
| 1439 | Ammonium dichromate |
| 1442 | Ammonium perchlorate |
| 1444 | Ammonium persulphate |
| 1512 | Zinc ammonium nitrite |
| 1546 | Ammonium arsenate |
| 1630 | Mercury ammonium chloride |
| 1727 | Ammonium hydrogendifluoride, solid |
| 1835 | Tetramethylammonium hydroxide, solid |
| 1843 | Ammonium dinitro- <i>o</i> -cresolate solid or solution |
| 1942 | Ammonium nitrate with not more than 0.2% combustible substances |
| 2067 | Ammonium nitrate fertilizer |
| 2071 | Ammonium nitrate fertilizer |
| 2072 | Ammonium nitrate fertilizer, n.o.s. |
| 2073 | Ammonia solution, relative density < 0.880 at 15°C in water |
| 2426 | Ammonium nitrate, liquid (hot concentrated solution) |
| 2505 | Ammonium fluoride |
| 2506 | Ammonium hydrogen sulphate |
| 2683 | Ammonium sulphide solution |
| 2687 | Dicyclohexylammonium nitrite |
| 2817 | Ammonium hydrogendifluoride solution |
| 2818 | Ammonium polysulphide solution |
| 2854 | Ammonium fluorosilicate |
| 2859 | Ammonium metavanadate |
| 2861 | Ammonium polyvanadate |
| 2863 | Sodium ammonium vanadate |
| 3375 | Ammonium nitrate emulsion or suspension or gel intermediate for blasting explosives |

3 Bromates

| | |
|------|-----------------------------|
| 1450 | Bromates, inorganic, n.o.s. |
| 1473 | Magnesium bromate |
| 1484 | Potassium bromate |
| 1494 | Sodium bromate |
| 2469 | Zinc bromate |

- 2719 Barium bromate
- 3213 Ammonium bromate
- 3213 Bromates, inorganic, aqueous solution, n.o.s.

4 Chlorates

- 1445 Barium chlorate
- 1452 Calcium chlorate
- 1458 Chlorate and borate mixture
- 1459 Chlorate and magnesium chloride mixture
- 1461 Chlorates, inorganic, n.o.s.
- 1485 Potassium chlorate
- 1495 Sodium chlorate
- 1506 Strontium chlorate
- 1513 Zinc chlorate
- 2427 Potassium chlorate, aqueous solution
- 2428 Sodium chlorate, aqueous solution
- 2429 Calcium chlorate, aqueous solution
- 2573 Thallium chlorate
- 2721 Copper chlorate
- 2723 Magnesium chlorate

5 Chlorites

- 1453 Calcium chlorite
- 1462 Chlorites, inorganic, n.o.s.
- 1496 Sodium chlorite
- 1908 Chlorite solution

6 Cyanides

- 1541 Acetone cyanhydrin, stabilized
- 1565 Barium cyanide
- 1575 Calcium cyanide
- 1587 Copper cyanide
- 1588 Cyanides, inorganic, solid, n.o.s.
- 1620 Lead cyanide
- 1626 Mercuric potassium cyanide
- 1636 Mercury cyanide
- 1642 Mercury oxycyanide, desensitized
- 1653 Nickel cyanide
- 1679 Potassium cuprocyanide
- 1680 Potassium cyanide
- 1684 Silver cyanide
- 1689 Sodium cyanide
- 1694 Bromobenzyl cyanides
- 1713 Zinc cyanide
- 1889 Cyanogen bromide
- 1935 Cyanide solution, n.o.s.
- 2205 1,4-Dicyanobutane
- 2316 Sodium cuprocyanide, solid
- 2317 Sodium cuprocyanide solution

7 Heavy metals and their salts

- 0129 Lead azide, wetted, with not less than 20% water, or mixture of alcohol and water, by mass

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| 0130 | Lead styphnate (lead trinitroresorcinate), wetted with not less than 20% water, or mixture of alcohol and water, by mass |
| 0135 | Mercury fulminate, wetted with not less than 20% water, or mixture of alcohol and water, by mass |
| 1347 | Silver picrate, wetted with not less than 30% water, by mass |
| 1366 | Diethylzinc |
| 1370 | Dimethylzinc |
| 1435 | Zinc ashes |
| 1436 | Zinc dust or zinc powder |
| 1469 | Lead nitrate |
| 1470 | Lead perchlorate |
| 1477 | Nitrates, inorganic, n.o.s. |
| 1493 | Silver nitrate |
| 1512 | Zinc ammonium nitrite |
| 1513 | Zinc chlorate |
| 1514 | Zinc nitrate |
| 1515 | Zinc permanganate |
| 1516 | Zinc peroxide |
| 1587 | Copper cyanide |
| 1616 | Lead acetate |
| 1617 | Lead arsenates |
| 1618 | Lead arsenites |
| 1620 | Lead cyanide |
| 1623 | Mercuric arsenate |
| 1624 | Mercuric chloride |
| 1625 | Mercuric nitrate |
| 1626 | Mercuric potassium cyanide |
| 1627 | Mercurous nitrate |
| 1629 | Mercury acetate |
| 1630 | Mercury ammonium chloride |
| 1631 | Mercury benzoate |
| 1634 | Mercury bromides |
| 1636 | Mercury cyanide |
| 1637 | Mercury gluconate |
| 1638 | Mercury iodide |
| 1639 | Mercury nucleate |
| 1640 | Mercury oleate |
| 1641 | Mercury oxide |
| 1642 | Mercury oxycyanide, desensitized |
| 1643 | Mercury potassium iodide |
| 1644 | Mercury salicylate |
| 1645 | Mercury sulphate |
| 1646 | Mercury thiocyanate |
| 1649 | Motor fuel anti-knock mixture |
| 1653 | Nickel cyanide |
| 1674 | Phenylmercuric acetate |
| 1683 | Silver arsenite |
| 1684 | Silver cyanide |
| 1712 | Zinc arsenate and zinc arsenite mixture |
| 1713 | Zinc cyanide |
| 1714 | Zinc phosphide |
| 1794 | Lead sulphate with > 3% free acid |