

## CHAPTER 3.1

### GENERAL

#### 3.1.1 Scope and general provisions

3.1.1.1 The Dangerous Goods List in this Chapter lists the dangerous goods most commonly carried but is not exhaustive. It is intended that the list cover, as far as practicable, all dangerous substances of commercial importance.

3.1.1.2 Where a substance or article 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 substance or article. A “generic” or “not otherwise specified” entry may be used to permit the transport of substances or articles which do not appear specifically by name in the Dangerous Goods List. Such a substance or article may be transported only after its dangerous properties have been determined. The substance or article shall then be classified according to the class definitions and test criteria and the name in the Dangerous Goods List which most appropriately describes the substance or article shall be used. The classification shall be made by the appropriate competent authority when so required or may otherwise be made by the consignor. Once the class of the substance or article has been so established, all conditions for dispatch and transport, as provided in these Regulations shall be met. Any substance or article 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 regulations contain 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 The Dangerous Goods List does not include goods which are so dangerous that their transport, except with special authorization, is prohibited. Such goods are not listed because the transport of some goods may be prohibited for some modes of transport and allowed in others and, in addition, because it would be impossible to draw up an exhaustive list. Moreover, any such list would soon cease to be exhaustive because of the frequent introduction of new substances; and the absence of a substance from such a list might give the mistaken impression that that substance could be carried without special restrictions. Inherent instability in goods may take different dangerous forms, for example, explosion, polymerization, with intense evolution of heat, or emission of toxic gases. In respect of most substances, such tendencies can be controlled by correct packing, dilution, stabilization, addition of an inhibitor, refrigeration or other precautions.

3.1.1.4 Where precautionary measures are laid down in the Dangerous Goods List in respect of a given substance or article (e.g. that it shall be “stabilized” or “with x% water or phlegmatizer”) such substance or article may not normally be carried when these measures have not been taken, unless the item in question is listed elsewhere (e.g. Class 1) without any indication of, or with different, precautionary measures.

#### 3.1.2 Proper shipping name

**NOTE 1:** *For proper shipping names to be used for dangerous goods transported as limited quantities, see 3.4.8.*

**NOTE 2:** *For proper shipping names used for the transport of samples, see 2.0.4.*

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 [e.g., 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:

- (a) UN 1057 LIGHTERS or LIGHTER REFILLS - The proper shipping name is the most appropriate of the following possible combinations:

LIGHTERS  
LIGHTER REFILLS;

- (b) UN 2793 FERROUS METAL BORINGS, SHAVINGS, TURNINGS or CUTTINGS in a form liable to self-heating. The proper shipping name is the most appropriate of the following combinations:

FERROUS METAL BORINGS  
FERROUS METAL SHAVINGS  
FERROUS METAL TURNINGS  
FERROUS METAL CUTTINGS

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 package markings is optional. For instance, “DIMETHYLAMINE AQUEOUS SOLUTION” may alternatively be shown “AQUEOUS SOLUTION OF DIMETHYLAMINE”. Commercial or military names for goods of Class 1 which contain the proper shipping name supplemented by additional descriptive text may be used.

3.1.2.4 Many substances have an entry for both the liquid and solid state (see definitions for liquid and solid in 1.2.1), or for the solid and solution. These are allocated separate UN numbers which are not necessarily adjacent to each other. Details are provided in the alphabetical index, e.g.:

|                      |     |      |
|----------------------|-----|------|
| NITROXYLENES, LIQUID | 6.1 | 1665 |
| NITROXYLENES, SOLID  | 6.1 | 3447 |

3.1.2.5 Unless it is already included in capital letters in the name indicated in the Dangerous Goods List, the qualifying word “MOLTEN” shall be added as part of the proper shipping name when a substance, which is a solid in accordance with the definition in 1.2.1, is offered for transport in the molten state (e.g. ALKYLPHENOL, SOLID, N.O.S., MOLTEN).

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 a substance which, without stabilization, would be forbidden from transport in accordance with 1.1.3 due to it being liable to dangerously react under conditions normally encountered in transport (e.g.: “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:

- (a) For liquids: where the SADT is less than or equal to 50 °C, the provisions of 7.1.5 shall apply;
- (b) For gases: the conditions of transport shall be approved by the competent authority.

3.1.2.7 Hydrates may be transported under the proper shipping name for the anhydrous substance.

### **3.1.2.8 *Generic or “not otherwise specified” (N.O.S.) names***

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 the 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 World Health Organisation (WHO) Recommended Classification of 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 Examples illustrating the selection of the proper shipping name supplemented with the technical name of goods for such N.O.S. entries are:

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

UN 3394 ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER-REACTIVE (trimethylgallium)

### **3.1.3 Mixtures and solutions containing one dangerous substance**

3.1.3.1 A mixture or solution containing a dangerous substance identified by name in the Dangerous Goods List and one or more substances not subject to these Regulations shall be treated according to the requirements given for the dangerous substance provided that the packaging is appropriate to the physical state of the mixture or solution, unless:

- (a) The mixture or solution is specifically identified by name in these Regulations; or
- (b) The entry in these Regulations specifically indicates that it applies only to the pure substance; or
- (c) The hazard class, physical state or packing group of the solution or mixture is different from that of the dangerous substance; or
- (d) There is significant change in the measures to be taken in emergencies.

3.1.3.2 For solutions and mixtures treated according to the provisions given for the dangerous substance, the qualifying word “SOLUTION” or “MIXTURE”, as appropriate, shall be added as part of the proper shipping name, e.g. “ACETONE SOLUTION”. In addition, the concentration of the solution or mixture may also be indicated, e.g., “ACETONE 75% SOLUTION”.

3.1.3.3 A mixture or solution containing one or more substances identified by name in these Regulations or classified under a N.O.S. entry and one or more substances is not subject to these Regulations 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.

## CHAPTER 3.2

### DANGEROUS GOODS LIST

#### 3.2.1 Structure of the dangerous goods list

The Dangerous Goods List is divided into 11 columns as follows:

Column 1 “UN No.” - this column contains the serial number assigned to the article or substance under the United Nations system.

Column 2 “Name and description” - this column contains the proper shipping names in uppercase characters, which may be followed by additional descriptive text presented in lowercase characters (see 3.1.2). An explanation of some of the terms used appears in Appendix B. Proper shipping names may be shown in the plural where isomers of similar classification exist. Hydrates may be included under the proper shipping name for the anhydrous substance, as appropriate.

Unless otherwise indicated for an entry in the dangerous goods list, the word “solution” in a proper shipping name means one or more named dangerous goods dissolved in a liquid that is not otherwise subject to these Regulations.

Column 3 “Class or division” - this column contains the class or division and in the case of Class 1, the compatibility group assigned to the article or substance according to the classification system described in Chapter 2.1.

Column 4 “Subsidiary risk” - this column contains the class or division number of any important subsidiary risks which have been identified by applying the classification system described in Part 2.

Column 5 “UN packing group” - this column contains the UN packing group number (i.e. I, II or III) assigned to the article or substance. If more than one packing group is indicated for the entry, the packing group of the substance or formulation to be transported shall be determined, based on its properties, through application of the hazard grouping criteria as provided in Part 2.

Column 6 “Special provisions” - this column contains a number referring to any special provision(s) indicated in 3.3.1 that are relevant to the article or substance. Special provisions apply to all the packing groups permitted for a particular substance or article unless the wording makes it otherwise apparent.

Column 7 “Limited quantities” - this column provides the maximum quantity per inner packaging or article authorized for transport of the substance concerned according to the provisions for limited quantities in Chapter 3.4. The word “None” in this column means that the article or substance is not permitted to be transported under the provisions of Chapter 3.4.

Column 8 “Packing instruction” - This column contains alpha numeric codes which refer to the relevant packing instructions specified in section 4.1.4. The packing instructions indicate the packaging (including IBCs and large packagings), which may be used for the transport of substances and articles.

A code including the letter “P” refers to packing instructions for the use of packagings described in Chapters 6.1, 6.2 or 6.3.

A code including the letters “IBC” refers to packing instructions for the use of IBCs described in Chapter 6.5.

A code including the letters “LP” refers to packing instructions for the use of large packagings described in Chapter 6.6.

When a particular code is not provided, it means the substance is not authorized in the type of packaging that may be used according to the packing instructions bearing that code.

When N/A is included in the column it means that the substance or article need not be packaged.

The packing instructions are listed in numerical order in section 4.1.4 as follows:

Sub-section 4.1.4.1: Packing instructions concerning the use of packagings (except IBCs and large packagings) (P);

Sub-section 4.1.4.2: Packing instructions concerning the use of IBCs (IBC);

Sub-section 4.1.4.3: Packing instructions concerning the use of large packagings (LP).

Column 9 “Special packing provisions” - this column contains alpha numeric codes which refer to the relevant special packing provisions specified in section 4.1.4. The special packing provisions indicate the special provisions for packaging (including IBCs and large packagings).

A special packing provision including the letters “PP” refers to special packing provision applicable to the use of packing instructions bearing the Code “P” in 4.1.4.1.

A special packing provision including the letter “B” refers to special packing provision applicable to the use of packing instructions bearing the code “IBC” in 4.1.4.2.

A special provision including the letter “L” refers to special packing provision applicable to packing instructions bearing the code “LP” in 4.1.4.3.

Column 10 “Portable tank and bulk containers/Instructions” - this column contains a number preceded by the letter “T” which refers to the relevant instruction in 4.2.5 specifying the tank type(s) required for the transport of the substance in portable tanks.

A code including the letters “BK” refers to types of bulk containers used for the transport of bulk goods described in Chapter 6.8.

The gases authorized for transport in MEGCs are indicated in the column “MEGC” in Tables 1 and 2 of packing instruction P200 in 4.1.4.1.

Column 11 “ Portable tank and bulk containers/Special provisions” - this column contains a number preceded by the letters “TP” referring to any special provisions indicated in 4.2.5.3 that apply to the transport of the substance in portable tanks.

### 3.2.2 Abbreviations and symbols

The following abbreviations or symbols are used in the Dangerous Goods List and have the meanings shown:

| Abbreviation | Column | Meaning  |
|--------------|--------|--|
| N.O.S.       | 2      | Not otherwise specified.                               |
| †            | 2      | Entry for which there is an explanation in Appendix B. |