

**CIRCULAR: EHS/PM/03/17**  
**Dated: 1<sup>st</sup> March 2017**

**To: All Shipping Lines, Shipping Agents, Ship Owners, Vessel Operators,  
Shippers and Other Interested Parties**

**Subject: IMDG Code Amendment (38-16) & EHS Requirements**

The new edition (2016) of the IMDG Code has been published by the International Maritime Organization (IMO) and this edition includes the changes in Amendment (38-16). EHS will enforce the new IMDG code Amendment (38-16) requirements from **1<sup>st</sup> January 2018**.

The many detailed changes introduced by Amendment 38-16 includes but not limited to the following:

- Definitions in 1.2 are revised: there are amendments to several existing definitions and new definitions added.
- Chapter 1.3 is updated to reflect the new Code of Practice for Packing of Cargo Transport Units (CTU Code) in 1.3.1.5 and 1.3.1.7.
- For explosives the description of division 1.6 explosives is amended in 2.1.1.4
- For class 3 there are updates to the assignment of packing group for viscous liquids as covered in 2.3.2.2 and 2.3.2.5.
- Polymerizing substances are now covered under the definition and general provisions for class 4.1. The definition and properties of these substances is covered in 2.4.2.5 with new UN Numbers (UN 3531 to UN 3534) being added accordingly.
- For class 9 there have been some amendments to items that have been assigned to this class.
- For class 2, 3, 6.1 and 8 there are new sections, 2.2.4, 2.3.5, 2.6.2.5, and 2.8.3 respectively, regarding not accepting chemically unstable substances for transport unless precautions have been taken to prevent decomposition or polymerization under normal conditions of transport.
- There are numerous changes to dangerous goods entries to reflect updates to packing provisions, marine pollutant status, special provisions and the codes in columns 16a and 16b.
- UN Nos. 3151 and 3152 add HALOGENATED MONOMETHYLDIPHENYLMETHANES as valid PSNs.
- UN 3166 is now just for vehicles. The entries for Engines previously covered by this UN Number have been moved to new UN Numbers 3528, 3529 and 3530
- There have been nine new UN Numbers added: UN 0510 and UN Nos from UN 3527 to UN 3534.
- There are numerous changes to special provisions. Many are amended, a few are deleted and 11 new ones added: SP378–387, SP971-972
- There are many revisions to the packing instructions, including those for IBCs and large packagings and a number of new packing instructions: P005, P412, P910, LP200
- In numerous places the term ‘marking’ is replaced by the word ‘mark’ e.g. 3.5.4.1, 4.1.2.4
- There is a new 5.2.1.10 which provides for a new mark for lithium batteries. This is to be applied to packages containing lithium cells or batteries prepared in accordance with special provision 188.

- Lithium batteries also have a new class 9 label (No.9A) added to 5.2.2.2.2. This label is required by SP384
- In Chapter 7.1 there is a new introductory note 2 to clarify that cargo holds cannot be interpreted as closed cargo transport units.
- There is a new stowage code added to 7.1.5, for liquid-fuelled engines or machinery of UN 3528, SW29 prescribes stowage category A when the fuel flashpoint is 23°C or above.
- There is a change to the segregation table for segregation between bulk materials possessing chemical hazards and dangerous goods in packaged form, 7.6.3.5.2. In the row for "Substances which in contact with water emit flammable gases 4.3," versus column 2.1, replace "1" by "2" ie replace the 'away from' requirement with a more stringent 'separated from' requirement.
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### **Part 1 – General Provisions, Definitions and Training**

- Section 1.1.1.6 on the application of standards is clarified further.
- Definitions in 1.2 are revised: there are amendments to several existing definitions and new definitions for 'CTU Code' (referring to the IMO/ILO/UNECE Code of Practice for Packing of Cargo Transport Units (MSC.1/Circ.1497)), 'Design life' and 'Service life' both as applied to composite cylinders and tubes, and 'Self-accelerating polymerization temperature'.
- Chapter 1.3 is updated to reflect the new Code of Practice for Packing of Cargo Transport Units (CTU Code) in 1.3.1.5 and 1.3.1.7.

### **Part 2 – Classification**

- There is a new 2.0.0.2 for when a consignor, on the basis of test data, identifies that a substance listed by PSN in the DGL meets classification criteria for a hazard class or division that is not identified in the list. This permits the consignor, with the approval of the competent authority, to either assign a substance 'Under the most appropriate generic or not otherwise specified (N.O.S.) entry reflecting all hazards' or 'Under the same UN number and name but with additional hazard communication information as appropriate'. This change is reflected with a new sentence after the first paragraph in 2.0.2.2.
- For explosives the description of division 1.6 explosives is amended in 2.1.1.4, the description of Compatibility Group "N" is replaced in 2.1.2.2, and the assignment of fireworks to hazard divisions sub-paragraph is replaced with new text in 2.1.3.5.1.
- There is a new 2.1.3.6 regarding classification documentation for explosives. This confirms that a competent authority should confirm any assignment of an article or substance in class 1 in writing and provides examples of the information that may be provided in the document.
- For class 3 there are updates to the assignment of packing group for viscous liquids as covered in 2.3.2.2 and 2.3.2.5.
- Polymerizing substances are now covered under the definition and general provisions for class 4.1. The definition and properties of these substances is covered in 2.4.2.5 with new UN Numbers (UN 3531 to UN 3534) being added accordingly.
- The classification of organic peroxides table in 2.5.3.2.4 has been amended
- For class 9 there have been some amendments to items that have been assigned to this class. Halogenated Monomethyldiphenylmethanes have been added to the items which, in the event of fire, may form dioxins and the engine entries for UN 3166 have been amended to reflect the new UN Number assignment for these, UN 3530.

- For class 2, 3, 6.1 and 8 there are new sections, 2.2.4, 2.3.5, 2.6.2.5, and 2.8.3 respectively, regarding not accepting chemically unstable substances for transport unless precautions have been taken to prevent decomposition or polymerization under normal conditions of transport. For the precautions necessary to prevent polymerization there is a new special provision, SP386.

### **Part 3 - Dangerous Goods List (DGL), Special Provisions and Exemptions**

- There are numerous changes to dangerous goods entries to reflect updates to packing provisions, marine pollutant status, special provisions and the codes in columns 16a and 16b.
- Prevalent changes include:
  - renumbering 'B2' as 'B21' in all cases except for IBC100 and UN 0222. Currently, the provision B2 used by IBC100 is different from the B2 used by the other IBC instructions since an explosive could not be in an open CTU. B2 for other cases allowed for the possibility of an open CTU with rigid sided or fences to the height of the IBC;
  - the addition of the new SP386 and the existing stowage requirement SW1 to substances meeting the new classification requirements as covered in 2.2.4, 2.3.5, 2.6.2.5, and 2.8.3 (see last bullet in section above). In a number of these instances the stowage category has also been to Category C; and
  - for several substances the fire schedule 'F-G' has now been changed to read 'F-G'. The underline is for several of the class 4.3 pg I entries. The fire schedule already warns that contact with water would produce large volumes of flammable gases and possibly an explosive atmosphere.
- UN Nos. 3151 and 3152 add HALOGENATED MONOMETHYLDIPHENYLMETHANES as valid PSNs.
- UN 3166 is now just for vehicles. The entries for Engines previously covered by this UN Number have been moved to new UN Numbers 3528, 3529 and 3530. UN 3528 flammable liquid powered engines are in class 3; flammable gas powered are UN 3529 and in class 2.1. Special provision 363 exempts them from the IMDG Code if they are empty of fuel and contain no other dangerous goods. These entries in UN 3528 and UN 3529 now need segregating from other dangerous goods as they are no longer class 9. When powered by gas or a liquid with flashpoint below 23°C they are in stowage category E, so allowed on cargo sailings only. With a higher flashpoint fuel they are in stowage category A. UN 3530, class 9, is to be used for engines which are marine pollutants but not meeting the definitions of any of classes 1 to 8. The description 'machinery' is to be used if this is more appropriate than 'engine'. Special provision 363 .7 give the conditions under which reduced marking and labelling requirements may apply
- There are nine new UN Numbers as follows:
  - UN 0510 - ROCKET MOTORS
  - UN 3527 - POLYESTER RESIN KIT, solid base material
  - UN 3528 - ENGINE, INTERNAL COMBUSTION, FLAMMABLE LIQUID POWERED or ENGINE, FUEL CELL, FLAMMABLE LIQUID POWERED or MACHINERY, INTERNAL COMBUSTION, FLAMMABLE LIQUID POWERED or MACHINERY, FUEL CELL, FLAMMABLE LIQUID POWERED
  - UN 3529 - ENGINE, INTERNAL COMBUSTION, FLAMMABLE GAS POWERED or ENGINE, FUEL CELL, FLAMMABLE GAS POWERED or MACHINERY, INTERNAL COMBUSTION, FLAMMABLE GAS POWERED or MACHINERY, FUEL CELL, FLAMMABLE GAS POWERED

- UN 3530 - ENGINE, INTERNAL COMBUSTION or MACHINERY, INTERNAL COMBUSTION
  - UN 3531 - POLYMERIZING SUBSTANCE, SOLID, STABILIZED N.O.S.
  - UN 3532 - POLYMERIZING SUBSTANCE, LIQUID, STABILIZED, N.O.S.
  - UN 3533 - POLYMERIZING SUBSTANCE, SOLID, TEMPERATURE CONTROLLED, N.O.S.
  - UN 3534 - POLYMERIZING SUBSTANCE, LIQUID, TEMPERATURE CONTROLLED, N.O.S.
- There is a new second sentence added to the introduction to special provisions in Chapter 3.3. This refers to where special provisions apply to package markings and recaps that they need to meet the provisions of 5.2.1.2.1 to .4.
- There are numerous changes to special provisions. Many are amended, a few are deleted and 11 new ones added: SP378–387, SP971-972
- For excepted quantities the paragraphs on inner packaging being securely packed with intermediate packaging and marking on overpacks, 3.5.2.1.2 and 3.5.4.3 respectively, have been updated.

#### **Part 4 – Packing and Tank Provisions**

- Paragraph 4.1.1.12 regarding packagings intended to contain liquids now references the requirement for quality assurance programmes as stipulated in 6.1.1.3.
- Large salvage packagings are now included in paragraph 4.1.1.18.
- The sub-paragraph 4.1.1.19 on salvage pressure receptacles is amended limiting them to a water capacity of 1,000 litres.
- There have been numerous changes to existing packing instructions and special provisions. The following provides a brief summary:
- The following special provisions are all amended PP48 (applying to packing instructions P112 and P114), PP67 (applying to P130), PP70 (applying to P137)
  - For gases there have been numerous amendments and additions to packing instruction P200 and P206-P208
  - For flammable solids there have been amendments to packing instructions P403, P406 and P410.
  - Packing instruction “P805” is renumbered as “P603” and relocated accordingly. The UN Number concerned, UN 3507, has changed from class 8 subrisk 7 to class 6.1 subrisks 7 and 8, so the packing instruction name changes to conform.
  - Finally packing instructions P502, P650, P906 and P909 have minor amendments.
- In addition to these amendments there have also been new packing instructions and special provisions added:
- There is a new P005 applying to the new UN Nos. 3528, 3529 and 3530.
  - There is a new P412 applying to UN No.3527
  - There is a new P910 applying to UN Nos. 3090, 3091, 3480 and 3481 when as prototypes or small production runs.
  - PP93 is added to P001 and assigned to new UN Nos. 3532 and 3534
  - PP92 is added to P002 and concerns the prevention of gas or vapour build up in packagings

- P100 is added to P002, P003, P410 and concerns water-resistance and sift-proofness
- For IBCs, there is a new B19 added to IBC03, B4 is now added to IBC06 and IBC07. B2 for UN 0222 remains unchanged. However, for all other IBC instructions B2 is now renumbered as B21. Finally, there are new substance entries added to the tables in IBC520
- For large packagings in LP02, L2 is deleted and new large packing provisions 'L3' and 'L4' added. There is a new large packaging instruction LP200 which applies to UN 1950
- There is a new 4.1.1.5.2 which provides for the use of supplementary packagings within combination packages.
- For tanks there are a few changes to the rules for pre-2003 IMO tanks, 'markings' have become 'marks' instructions, and provision TP23 is removed as it is no longer used.

### Part 5 - Consignment Procedures

- In numerous places the term 'marking' is replaced by the word 'mark' e.g. 3.5.4.1, 4.1.2.4. This follows the rationalisation of these terms had undertaken in the Orange Books.
- There is a new 5.2.1.10 which provides for a new mark for lithium batteries. This is to be applied to packages containing lithium cells or batteries prepared in accordance with special provision 188. Details of the mark are provided in a new 5.2.1.10.2 and the mark is as shown below:



\* Place for UN number(s);

\*\*Place for telephone number for additional information

- Lithium batteries also use a new class 9 label (No.9A) added to 5.2.2.2.2 as shown below. This label is required by SP384. However the placard used is still to be No.9



Symbol (seven vertical black stripes in upper half; battery group, one broken and emitting flame in lower half): black;

Background: white;

Figure "9" underlined in bottom corner".

- There is a new paragraph added to the end of 5.3.1.1.2 which clarifies that the new No.9A label must not be used for placarding purposes.
- There are some minor changes to the documentation chapter to reflect some of the changes previously mentioned in this summary. For example, sub-paragraph 5.4.1.5.5 now incorporates the inclusion of polymerizing substances to class 4.1.
- There are two new sub-paragraphs added for information required in addition to the dangerous goods descriptions; 5.4.1.5.16 Classification where new data is available as per the new requirement in 2.0.0.2 and 5.4.1.5.17 applying to UN Nos. 3528, 3529 and 3530 when shipped in accordance with special provision 363.
- The marking requirements as covered in Chapter 5.5 have new paragraphs added to reflect the requirements for the markings applied to be able to survive 3 months immersion in the sea.

## **Part 6 - Construction and Testing of Packagings**

- Throughout this Part there are minor changes to reflect the change from the use of 'markings' to 'mark'.
- There are several amendments to chapter 6.2 concerning UN pressure receptacles, aerosol dispensers and gas cartridges including addition of new ISO standards. Also, there are new sub-paragraphs added to the marking requirements for refillable UN pressure receptacles, 6.2.2.7.
- In Chapter 6.5 there are some minor amendments to the section 6.5.2 concerned with marking for primary marking and additional marking

## **Part 7 - Provisions Concerning Transport Operations**

- In Chapter 7.1 there is a new introductory note 2 to clarify that cargo holds cannot be interpreted as closed cargo transport units.
- There is a new stowage code added to 7.1.5, for liquid-fuelled engines or machinery of UN 3528, SW29 prescribes stowage category A when the fuel flashpoint is 23°C or above.
- There is a new table 7.2.6.3.3 added for Organometallic Substances which exempts them from normal segregation requirements as they are deemed to belong to a group of substances of different classes but for which scientific evidence exists that they do not react dangerously when in contact with each other.
- There is a change to the segregation table for segregation between bulk materials possessing chemical hazards and dangerous goods in packaged form, 7.6.3.5.2. In the row for "Substances which in contact with water emit flammable gases 4.3," versus column 2.1, replace "1" by "2" ie replace the 'away from' requirement with a more stringent 'separated from' requirement.

### **IMDG Code Supplement**

- There are no significant changes currently planned for the Supplement other than adding the new UN Numbers to the EmS Index.

Any contravention of these above mentioned requirements may result in appropriate sanction which may also include imposition of fines against the violator.

All relevant and applicable IMDG Code and Ports EHS requirements should be strictly followed at all times. Any queries related to this circular should be forwarded to [Ehs.Ports@trk.pfc.ae](mailto:Ehs.Ports@trk.pfc.ae)

This circular is intended to assist all concerned parties to promote a safer, cleaner and hazard free working environment

**Sincerely,**

**Eng. Madiha Salem**

EHS Director

Environment, Health & Safety – Trakhees

Cc:

DP World UAE Region Commercial Department

DP World UAE Region HSE Department