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PPR.1/Circ.7/Rev.1
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DECISIONS WITH REGARD TO THE CATEGORIZATION AND CLASSIFICATION OF PRODUCTS

1 The Marine Environment Protection Committee, at its seventy-fourth session (13 to 17 May 2019), and the Maritime Safety Committee, at its 101st session (5 to 14 June 2019), recognizing the need to update BLG.1/Circ.33 to capture all relevant decisions in relation to the assignment of carriage requirements under the IBC Code following the adoption of amendments to chapters 1, 15, 16, 17, 18, 19 and 21 of the IBC Code by resolutions MEPC.318(74) and MSC.460(101), approved the revised *Decisions with regard to the categorization and classification of products* (PPR.1/Circ.7).

2 The Sub-Committee on Pollution Prevention and Response, at its tenth session (24 to 28 April 2023), agreed to include additional decisions with regard to the categorization and classification of products, that had been made since the issuance of PPR.1/Circ.7. Subsequently, the Marine Environment Protection Committee, at its eightieth session (3 to 7 July 2023), approved the updated *Decisions with regard to the categorization and classification of products*, as set out in the annex.

3 Member Governments and international organizations are invited to bring the annexed decisions to the attention of Administrations, recognized organizations, port authorities, shipowners, ship operators and other parties concerned.

4 This circular revokes PPR.1/Circ.7.

ANNEX

DECISIONS WITH REGARD TO THE CATEGORIZATION AND CLASSIFICATION OF PRODUCTS

1 The following decisions have been taken to assist in the categorization and classification of products.

- .1 "NI" in column A2 should be regarded as "NR" (Not Readily Biodegradable).
- .2 "NI" in column B2 (Aquatic chronic toxicity):

If column B2 is "NI" or column A1 is "NI" or column "A2" is "NI", the chronic aquatic toxicity rating (B2) is assigned using this method:

- .1 if column B1 is 2, 3, 4, 5 or 6; and
- .2 column A2 is "NR" or "NI", or column A1 is 4, 5 or 6;

the product is deemed not to be chronically toxic to aquatic organisms and is assigned a "1" in column B2.

- .3 In all other cases, the product is deemed not to be chronically toxic and is assigned a "0" in column B2.

The above method is illustrated in the table shown below.

A1 Bioaccumulation	A2 Biodegradation	B1* Acute toxicity	Assign B2 as
		≤ 1	(0)
≤ 3	R	≥ 2	
≥ 4		≥ 2	(1)
	NI (NR)	≥ 2	
	NR	≥ 2	

* B2 is 0 when B1 is ≤ 1 , irrespective of the value of A1 or A2.

- .3 "NI" in column E2 should be regarded as "F" or "S" (Floater or Sinker), however, during the classification revision process it was agreed to qualify floaters, based on their properties, either as an F or as an Fp (persistent floater). Since an F alone has no impact on the assignment of ship typing, NI in column E2 should be regarded as Fp.
- .4 "NI" in other columns used for classification purposes should be regarded as insufficient data to permit proper classification.
- .5 GESAMP Hazard Profiles with ratings in brackets (indicating estimated values) are treated in the same manner as ratings without brackets for the purposes of product classification.

- .6 Only the ratings "R" and "NR" are used in column A2 for categorization purposes and so it is necessary to translate the notation "Inorg" into a rating that can be used for categorization. The rating of "Inorg", for the purposes of categorization under chapter 21 of the IBC Code, is considered to be "R".
- .7 When a material has floater characteristics but this is combined with dissolution or evaporation properties (having an SD, FD, FE or FED rating for column E2 in the GESAMP Hazard Profile), consideration of this combined rating should not trigger a Pollution Category Y on the basis of the S or F reference presented in column E2 of the hazard profile in view of the substance's associated properties and behaviour.
- .8 When assigning the pollution category of a product in relation to the condition "not Fp, F or S (if not organic)" as set out in rule 13 of appendix 1 to MARPOL Annex II, it was confirmed that "if not organic" has the same meaning as "unless inorganic".
- .9 Procedures for estimating acute inhalation toxicity ratings are reflected in the report of the forty-first session of the GESAMP/EHS Working Group (BLG/Circ.15, annex 3). The decision table utilized for this purpose which is based on C1/C2 and D1/D2 ratings is shown below:

Highest Oral and/or Dermal ratings for Columns C1 and/or C2	Highest Skin and/or Eye irritation ratings for Columns D1 and/or D2	Proposed estimated Acute Inhalation Toxicity rating for Column C3
0	0	0
	1	1
	2	2
	3	3
1	0	1
	1	2
	2	
	3	3
2	0	2
	1	
	2	
	3	3
3	0	3
	1	4
	2	
	3	
4	0	4
	1	
	2	
	3	

- .10 In the case of inorganic solid substances transported in aqueous solution where it can be shown that the solids concerned are non-volatile and that there is a minimal risk of generating aerosols or mists from solutions during transport and transfer, the provisions in chapter 21 of the IBC Code (paragraph 21.1.3), where human factors or other factors indicate a need for alternative arrangements to be followed when assessing carriage requirements, should be considered. Based on the following criteria:
- .1 the substance itself has low volatility and high stability under ambient temperature and pressure conditions; and
 - .2 the solution does not produce hazardous vapours,

it may be appropriate that a requirement for controlled venting or gauging or operational requirements, in relation to the inhalation toxicity (C3) or corrosivity (D1) ratings, are not required. If this approach is followed, to formalize this position, a footnote/reference indicating this by using the wording below should be associated with the product entry:

"With reference to chapter 21 of the IBC Code (paragraph 21.1.3) deviations from the normal assignment criteria used for some carriage requirements have been implemented."

It should be noted that use of the above reference is not intended for tripartite agreements but only for products which have been assessed and agreed by the ESPH Working Group.

- .11 Substances only used as components in trade named mixtures need to have a full GESAMP Hazard Profile. The Ship Type, component factor and Pollution Category of these products can be established based on the GESAMP Composite List. If the component is used in the contains name of the mixture, it should be included in annex 5 to the MEPC.2/Circular. If the component presents a safety hazard this should be taken into account when assigning carriage requirements to the mixture. The contains name used in the trade name mixture needs not be listed in chapter 17 or 18 of the IBC Code or in List 1 of the MEPC.2/Circ.
- .12 Notwithstanding sub-paragraph 11 above, for a mixture which contains one or more MARPOL Annex I components forming more than 1% by weight of the mixture, the resulting Pollution Category of the mixture should always be Pollution Category X. A component factor of 100 should be used for the assignment of ship type. The MARPOL Annex I component(s) should also be indicated in the contains name as follows: contains oil.* The MARPOL Annex I component(s) should not be included in annex 5 to the MEPC.2/Circular.
- .13 In cases where products which contain mineral oil are proposed as entries for List 1 but the products are not conventional mixtures since the oil is a diluent which is present as a necessary consequence of manufacture and hence effectively integral to the product concerned, the term mineral oil does not need to be reflected in the product name.

* See list of oils in appendix I to MARPOL Annex I, excluding "Mineral oil" as a component in Lube Oil Additive mixtures.

- .14 As the boiling point of a product is not always less than its autoignition temperature, boiling point should not be used to estimate flammability criteria. Additionally,
- .1 if the autoignition temperature is $> 200^{\circ}\text{C}$, then an accurate value does not need to be provided unless the flashpoint is $\leq 60^{\circ}\text{C}$, when it is required to assign electrical apparatus; and
 - .2 if the autoignition temperature is $\leq 200^{\circ}\text{C}$, then an accurate value is needed to assign certain carriage requirements.
- .15 Column "I" of chapter 17 of the IBC Code should list all suitable fire-fighting media in order to allow an appropriate type to be selected for the range of products to be carried on a ship. Although in paragraph 21.4.12.1 of the IBC Code it states that "all appropriate media shall be listed", with respect to the need to specify Dry Chemical (D) usage, this should not be used unless the Water Reactivity Index (WRI) condition is invoked (WRI to be ≥ 1).
- .16 (Aqueous solution), in line with established practice for reporting water solutions, the term aqueous should be deleted and the brackets removed.
- .17 If there is no information in columns i' and i'' the default requirement is set as T4 and IIB respectively, if the flashpoint of the product is $\leq 60^{\circ}\text{C}$ or if the product is heated to within 15°C of its flashpoint.
- .18 Taking into account that some components of mixtures can potentially react chemically with each other, manufacturers should provide information, in the PPR Product Data Reporting Form, on the final composition of mixtures as far as practicable, rather than simply providing the initial "recipe" chemicals.
- .19 In cases where products included in list 1 of the MEPC.2/Circular have amended carriage requirements subsequent to the latest set of amendments to the IBC Code, a qualifier to the product name may be assigned by the ESPH Technical Group. The product name will be the IBC Code product name followed by "(amended)", e.g. Ethyl tert-butyl ether (amended), which will be the new provisional product name. The addition of a qualifier to the product name means that the reassessed product with the new provisional product name will be a separate product in respect of the IBC Code, even if the chemical composition of the product is the same. Where a product with a qualifier is to be shipped, the product should be included in the addendum to the Certificate.
- .20 With regard to chapter 17 of the IBC Code (resolutions MEPC.318(74) and MSC.460(101)), note the corrected carriage requirements for methyl acrylate and methyl methacrylate set out in PPR.1/Circ.9 on *Revised carriage requirements for methyl acrylate and methyl methacrylate*.

2 Background information and rationale for the decisions set out above can be found in the following documents: BLG/Circ.15, BLG 11/3/2, BLG 12/3, BLG 14/3, BLG 15/3, BLG 16/3, PPR 3/WP.3, PPR 5/3, PPR 5/WP.4, PPR 6/3, PPR 7/3, PPR 7/WP.3, PPR 8/3 and PPR 10/3.

APPENDIX

RATIONALE FOR DEVIATING FROM THE CARRIAGE REQUIREMENTS SET OUT IN CHAPTER 21 OF THE IBC CODE (RESOLUTIONS MEPC.318(74) and MSC.460(101))

The information set out below provides the rationale for deviating from the carriage requirements based on the criteria set out in chapter 21 of the IBC Code for the following products, as agreed by the ESPH Technical Group.

- .1 **Ammonium nitrate solution (93% or less):** it was agreed that this product would require 1G tanks due to the carriage temperature and the thermal stress placed on the structure, if shipped in 2G tanks. It was further agreed that Special Requirement 15.2 should be amended to make this clear.
- .2 **Ammonium sulphide solution (45% or less):** it was agreed that due to the Temperature Class being rated as T4, i.e. auto-ignition temperature < 200°C due to H₂S, then a ship type 2 would be required for this product.
- .3 **Coal tar pitch (molten):** it was agreed that due to the high carriage temperature, 1G tanks should be retained due to the stress levels on the structure.
- .4 **Creosote (coal tar):** taking into account the considerations on safety and environmental protection aspects (see PPR 10/3, paragraphs 3.56 to 3.58 and 3.60), it was agreed that a ship type 2 would be appropriate for carrying this product based on expert judgement.
- .5 **Diethyl ether:** it was noted that this product has a high vapour pressure and was also listed in chapter 19 of the IGC Code. It was therefore agreed that the appropriate section of chapter 15 of the IBC Code should be amended to identify that 1G tanks would be appropriate for carrying this product.
- .6 **Ethylamine:** it was noted that this product was also included in chapter 19 of the IGC Code. Given its high vapour pressure, it was agreed that carriage in 1G tanks should be retained for this product.
- .7 **Hydrochloric acid:** it was agreed that the product should be retained in 1G tanks due to its corrosivity and that a new special requirement be added following 15.8 to indicate that hydrochloric acid should only be carried in 1G tanks.
- .8 **Methyl alcohol:** during the review of chapters 17 and 18 of the IBC Code, it was agreed the requirements in paragraph 15.12.3.1 of the IBC Code would not be applied to the revised carriage requirements, on the basis of experience and expert judgement. All other requirements of 15.12 would apply in addition to all other applicable carriage requirements.
- .9 **Phosphoric acid:** the Group could not agree on the proposed deviation to the carriage requirements, based on the information presented. The Group therefore requested industry to submit data on the C1 and C2 ratings to GESAMP to reassess the GESAMP Hazard Rating, as the current C1 and C2 ratings were not based on actual data, but by analogy to the D1 and D2 ratings.
- .10 **Phosphorus, yellow or white:** it was agreed that the existing tank type should be retained as the special requirements in 15.7 implied independent tanks. It was also agreed that the wording in chapter 15.7 would need to be amended to emphasis this point.

- .11 **Sodium hydrosulphide/Ammonium sulphide solution:** it was agreed that due to the temperature class being rated as T4, i.e. auto-ignition temperature <200°C, then a ship type 2 would be required.

 - .12 **Sulphur (molten):** due to its carriage at high temperature and corresponding stress on the tank, it was agreed to retain its carriage in 1G tanks. It was also agreed that special requirement 15.10 would need to be amended and a new entry under 15.10.7 be added to require the carriage of this product in 1G tanks only.
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