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**COMMITTEE OF EXPERTS ON THE TRANSPORT OF
DANGEROUS GOODS AND ON THE GLOBALLY
HARMONIZED SYSTEM OF CLASSIFICATION
AND LABELLING OF CHEMICALS**

Sub-Committee of Experts on the Globally Harmonized
System of Classification and Labelling of Chemicals

Seventeenth session
Geneva, 29 June – 1 July 2009
Item 6(a) of the provisional agenda

STATUS OF IMPLEMENTATION OF THE GHS

Reports from governments or organizations

Consideration of issues relevant to Material Safety Data Sheets (MSDSs) by IMO
Sub-Committee on Bulk, Liquids and Gases at its thirteenth session (BLG 13)

Transmitted by the International Maritime Organization (IMO)¹

1. The Sub-Committee on Bulk, Liquids and Gases (BLG Sub-Committee) held its thirteenth session from 2 to 6 March 2009 and, amongst others, considered issues relevant to Material Safety Data Sheets (MSDS) in relation to MARPOL Annex I oil cargoes and marine fuel oils. Details of this consideration are contained in the following paragraphs.
2. Having discussed a report from the correspondence group on amendments to the recommendation for MSDS for MARPOL Annex I cargoes and marine fuels (resolution MSC.150(77)) and having considered a number of issues arising, the Sub-Committee tasked a drafting group to prepare a draft revised recommendation for (MSDS) for MARPOL Annex I cargoes and marine fuel oils and an associated draft MSC resolution.

¹ In accordance with the programme of work of the Sub-Committee for 2009-2010 approved by the Committee at its fourth session (refer to ST/SG/AC.10/C.4/32, Annex II and ST/SG/AC.10/36, para. 14)

3. This group prepared modifications to the text of Annex 2 to resolution MSC.150(77), in order to make the draft revised text more specific for its purposes. In this context, numerous amendments were made to paragraph 2 of the existing Annex 2 to resolution MSC.150(77) having considered the particular hazards and properties associated with MARPOL Annex I oils and fuel oils. These reflect the deletion of items not related directly to health and safety issues, the use of more appropriate parameters (as employed in the oil industry) for some of the physical property requirements and the need to specify hazards arising from benzene, hydrogen sulphide and total sulphur content at more appropriate sections of the MSDS.

4. As a consequence of the changes proposed for Annex 2, some minor editorial modifications were also made to the text of Annex 1 to the draft revised recommendation for MSDS for MARPOL Annex I cargoes and marine fuel oils.

5. Having agreed to these changes, the BLG Sub-Committee approved a draft MSC resolution on recommendations for MSDS for MARPOL Annex I oil cargo and oil fuel, as set out in the annex, for submission to the Maritime and Safety Committee (MSC) at its 86th session (27 May - 6 June 2009) for adoption.

Action requested of the GHS Sub-Committee

6. The GHS Sub-Committee is invited to consider the information provided in this report and its annex, and to take action, as appropriate, with respect to including the special needs of the maritime industry in its criteria on the Globally Harmonized System of classification and labelling of chemicals.

Annex

Draft MSC Resolution

Recommendations for Material Safety Data Sheets (MSDS) for MARPOL Annex I oil cargo and oil fuel

The Maritime Safety Committee,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING also that, at its seventy-sixth session, it approved the Recommendation for the use of a standard format for the cargo information required by chapter 16 of the IBC Code,

RECALLING further that, at its seventy-seventh session, it adopted the Recommendation for material safety data sheets for MARPOL Annex I cargoes and marine fuel oils (MSC.150(77)),

NOTING that, at its eighty-third session, it adopted amendments to SOLAS regulation VI/5-1, by means of resolution MSC.239(83), making the provision of material safety data sheets (MSDS) mandatory prior to the loading of MARPOL Annex I type cargo in bulk and oil fuel,

RECOGNIZING the importance of providing seafarers with clear, concise and accurate information on the health and the environmental effects of toxic substances carried on board tankers,

RECOGNIZING also the need to ensure a common understanding for an unambiguous implementation of SOLAS regulation VI/5-1,

HAVING CONSIDERED the recommendation made by the Sub-Committee on Bulk Liquids and Gases,

1. Adopts:
 - .1 The Recommendations for material safety data sheets (MSDS) for marine use suitable to meet the particular needs of the marine industry containing safety, handling, and environmental information to be supplied to a ship prior to the loading of MARPOL Annex I type oil as cargo in bulk and the bunkering of oil fuel, as set out in Annex 1 to the present resolution; and
 - .2 The Guidelines for the completion of MSDS for the MARPOL Annex I type oil as cargo in bulk and oil fuel, as set out in Annex 2 to the present resolution;

2. Urges governments to ensure the supply and carriage of the material safety data sheets (MSDS) for MARPOL Annex I type oil as cargo in bulk and oil fuel, as from [*date of adoption*];

3. Revokes Resolution MSC.150(77).

Annex 1 to the draft MSC Resolution

Recommendations for Material Safety Data Sheets (MSDS) for marine use suitable to meet the particular needs of the marine industry containing safety, handling, and environmental information to be supplied to a ship prior to the loading of MARPOL Annex I type oil as cargo in bulk and the bunkering of oil fuel

Section	Heading	Content
1	Identification of the substance or mixture and of the supplier	<ul style="list-style-type: none"> • Name of the category – see guidance in Annex 2 for MARPOL Annex I type oil cargoes and oil fuels • The name of the substances. • Trade name of the substances. • Description on Bill of Lading (B/L), Bunker Delivery Note or other shipping document. • Other means of identification. • Supplier's details (including name, address, telephone number, etc.). • Emergency telephone number.
2	Hazards identification	<ul style="list-style-type: none"> • GHS¹ classification of the substance/mixture and any regional information. • Other hazards which do not result in classification (e.g., hydrogen sulphide) or are not covered by the GHS. • See Guidelines in Annex 2.
3	Composition/information on ingredients	<ul style="list-style-type: none"> • Common name, synonyms, etc. • Impurities and stabilizing additives which are themselves classified and which contribute to the classification of the substances. • The chemical identity and concentration or concentration ranges of all ingredients which are hazardous within the meaning of GHS and are present above their cut-off levels. Cut-off level for reproductive toxicity, carcinogenicity and category 1 mutagenicity is 0.1%. Cut-off level for all other hazard classes is 1%. • See Guidelines in Annex 2.

¹ Globally Harmonized System of Classification and Labelling of Chemicals (GHS), United Nations (2007 edition, as revised).

Section	Heading	Content
4	First aid measures	<ul style="list-style-type: none"> • Description of necessary measures, subdivided according to the different routes of exposure, i.e. inhalation, skin and eye contact and ingestion. • Most important symptoms/effects, acute and delayed. • Indication of immediate medical attention and special treatment, if necessary.
5	Fire-fighting measures	<ul style="list-style-type: none"> • Suitable extinguishing media. • Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products). • Special protective equipment and precautions for fire-fighters.
6	Accidental release measures	<ul style="list-style-type: none"> • Personal precautions, protective equipment and emergency procedures. • Environmental precautions. • Methods and materials for containment and clean-up.
7	Handling and storage	<ul style="list-style-type: none"> • Precautions for safe handling. • Conditions for safe storage, including any incompatibilities.
8	Exposure controls/personal protection	<ul style="list-style-type: none"> • Control parameters (e.g., occupational exposure limit values). • Appropriate technical precautions. • Individual protection measures, such as personal protective equipment.
9	Physical and chemical properties	<ul style="list-style-type: none"> • See Guidelines in Annex 2.
10	Stability and reactivity	<ul style="list-style-type: none"> • Chemical stability. • Possibility of hazardous reactions. • Conditions to avoid (e.g., static discharge).
11	Toxicological information	<ul style="list-style-type: none"> • Concise but complete and comprehensible description of the various toxicological (health) effects and the available data used to identify those effects, including: <ul style="list-style-type: none"> ○ Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact); ○ Symptoms related to the physical, chemical and toxicological characteristics; ○ Delayed and immediate effects and also chronic effects from short- and long-term exposure.

Section	Heading	Content
		<ul style="list-style-type: none"> • Numerical measures of toxicity (such as acute toxicity estimates). • See Guidelines in Annex 2.
12	Ecological information	<ul style="list-style-type: none"> • Ecotoxicity (aquatic and terrestrial, where available). • Persistence and degradability. • Bioaccumulation potential. • Mobility in soil. • Other adverse effects. • See Guidelines in Annex 2.
13	Disposal considerations	<ul style="list-style-type: none"> • Description of waste residues and information on their safe handling and methods of disposal, in line with MARPOL requirements.
14	Transport information	<ul style="list-style-type: none"> • UN number, where applicable. • UN Proper shipping name, where applicable. • Transport Hazard class(es), where applicable. • Special precautions which a user needs to be aware of or needs to comply with in connection with transport (e.g., heating and carriage temperatures). • Note that this product is being carried under the scope of MARPOL Annex I.
15	Regulatory information	<ul style="list-style-type: none"> • Safety, health and environmental regulations specific for the product in question.
16	Other information including information on preparation and revision of the MSDS	<ul style="list-style-type: none"> • Version No. • Date of issue. • Issuing source.

Annex 2 to the draft MSC Resolution

Guidelines for the completion of MSDS for MARPOL Annex I type oil as cargo in bulk and oil fuel

1. Categories of liquids

The following categories subdivide the full scope of substances covered by Annex I of MARPOL 73/78 and set in groups specific products for general identification purposes.

- .1 Crude oils;
- .2 Fuel and residual oils, including ship's bunkers¹;
- .3 Unfinished distillates, hydraulic oils and lubricating oils;
- .4 Gas oils, including ship's bunkers²;
- .5 Kerosenes;
- .6 Naphthas and condensates;
- .7 Gasoline blending stocks;
- .8 Gasoline and spirits; and
- .9 Asphalt solutions.

2. Properties and information

In addition to properties and information specified in Annex 1, the following properties and information should be reported:

- .1 For the following provide appropriate hazards identification in section 2, composition/information on ingredients in section 3, and toxicological information in section 11 of the MSDS:
 - .1 Benzene – if present $\geq 0.1\%$ by weight (even if naturally occurring ingredient of the material);
 - .2 Hydrogen sulphide – if present at any concentration, in liquid and vapour phases, or if possible to accumulate in a tank's vapour space; and
 - .3 Total Sulphur – if present $\geq 0.5\%$ by weight, identify in section 3 and warn of potential for hydrogen sulphide evolution in sections 2 and 11;
- .2 For physical and chemical properties in section 9 of the MSDS:
 - .1 Appearance (physical state, colour, etc.);
 - .2 Odour;
 - .3 Pour point;

¹ Refer to standard ISO 8217:2005, Petroleum products – Fuels (class F) – Specifications of marine fuels, table 2.

² Refer to standard ISO 8217:2005, Petroleum products – Fuels (class F) – Specifications of marine fuels, table 1.

- .4 Boiling range;
 - .5 Flash point;
 - .6 Upper/lower flammability or explosive limits;
 - .7 Vapour pressure (Reid vapour pressure (RVP) when appropriate);
 - .8 Vapour density;
 - .9 Density;
 - .10 Auto-ignition temperature; and
 - .11 Kinematic viscosity; and
- .3 for ecological information in section 12 of the MSDS: Persistent or non-persistent oil as per the International Oil Pollution Compensation (IOPC) Fund definition³.

³ International Oil Pollution Compensation (IOPC) Fund definition: “A non-persistent oil is oil, which, at the time of shipment, consists of hydrocarbon fractions, (a) at least 50% of which, by volume, distils at a temperature of 340°C (645°F) and (b) at least 95% of which, by volume, distils at a temperature of 370°C (700°F) when tested by the ASTM Method D-86/78 or any subsequent revision thereof”.