ANNEX 18

RESOLUTION MSC.150(77)
(adopted on 2 June 2003)

RECOMMENDATION FOR MATERIAL SAFETY DATA SHEETS FOR MARPOL ANNEX I CARGOES AND MARINE FUEL OILS

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,

BEARING IN MIND that there are currently no mandatory requirements for occupational health and safety information relating to the transport of MARPOL Annex I type cargoes and marine fuel oils,

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

HAVING CONSIDERED the recommendation made by the Sub-Committee on Bulk Liquids and Gases at its eighth session,

1. ADOPTS the 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 cargoes and marine fuel oils, as set out in Annex 1 to the present resolution;

2. ADOPTS ALSO the Guidelines for the completion of MSDS for the MARPOL Annex I type cargoes and marine fuel oils, as set out in Annex 2 to the present resolution;

3. URGES Governments to ensure the supply and carriage of the material safety data sheets (MSDS) for MARPOL Annex I cargoes and marine fuel oils, as from 2 June 2003.

ANNEX 1

**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 CARGOES AND MARINE FUEL OILS**

1	**Identification of the substance or mixture and of the supplier**	• Name of the category - see supporting guidelines for each Annex I category type • The name of the substances • Trade name of the substances • Description of Bill of Lading (B/L) · Other means of identification. · Supplier's details (including name, address, phone number etc). · Emergency phone number.
2	**Hazards identification**	• GHS classification of the substance/mixture and any regional information. · Other hazards which do not result in classification (e.g. dust explosion hazard) or are not covered by the GHS.
3	**Composition/information on ingredients***	• Common name, synonyms etc. • Impurities and stabilizing additives which are themselves classified and which contribute to the classification of the substance. • The chemical identity and concentration or concentration ranges of all ingredients which are hazardous within the meaning of the GHS.* • See supporting guidelines for each Annex I category type.
4	**First aid measures**	• 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 needed, if necessary
5	**Fire-fighting measures**	• Suitable extinguishing media. · Special protective equipment and precautions for fire-fighters
6	**Accidental release measures**	• Personal precautions, protective equipment and emergency procedures. • Environmental precautions. · Methods and materials for containment and cleaning up.

* **Note**: For information on ingredients, the competent authority rules for CBI take priority over the rules for product identification.

7	**Handling and storage**	• Precautions for safe handling. · Conditions for safe storage, including any incompatibilities.
8	**Exposure controls/personal protection**.	• Control parameters e.g. occupational exposure limit values • Appropriate technical precautions. · Individual protection measures, such as personal protective equipment
9	**Actual physical, [and] chemical and operational properties**	• See supporting guidelines for each Annex I category type
10	**Stability and reactivity**	• Chemical stability. • Possibility of hazardous reactions. • Conditions to avoid (e.g. static discharge).
11	**Toxicological information**	• Concise but complete and comprehensible description of the various toxicological (health) effects and the available data used to identify those effects, including: • 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. • Numerical measures of toxicity (such as acute toxicity estimates)
12	**Ecological information**	• Ecotoxicity (aquatic and terrestrial, where available). • Persistence and degradability • Bioaccumulative potential • Mobility in soil • Other adverse effects
13	**Disposal considerations**	• Description of waste residues and information on their safe handling and methods of disposal, in line with MARPOL requirements.
14	**Transport information**	• UN number • UN Proper shipping name. • Transport Hazard class(es). · 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)
15	**Regulatory information**	· Safety, health and environmental regulations specific for the product in question.
16	**Other information including information on preparation and revision of the MSDS**	• Version No. • Date of issue • Issuing source

ANNEX 2

GUIDELINES FOR THE COMPLETION OF MSDS FOR THE MARPOL ANNEX I TYPE CARGOES AND MARINE FUEL OILS

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 purposed to define the technical and environmental parameters required for the MSDS.

.1 crude oils;
.2 fuel and residual oils, including ship's bunkers (ISO 8217, table 2);
.3 unfinished distillates, hydraulic oils and lubricating oils;
.4 gas oils, including ship's bunkers (ISO 8217, table 1);
.5 kerosenes;
.6 napthas and condensates;
.7 gasoline blending stocks;
.8 gasolines and spirits; and
.9 asphalt solutions.

2 Outline of technical, physical and environmental properties

2.1 The following properties should be reported for all liquids categorized in paragraph 1:

.1 Technical properties:

Density at 15ºC – kg/m3
Sulphur content % mass
Benzene content – mg/kg
Hydrogen sulphide content – mg/kg
Saturated vapour pressure at recommended carriage temperature – kPa; and

.2 Environmental properties:

Distillation % recovered at 200, 340, and 370ºC.

2.2 In addition to parameters required in paragraphs 2.1.1 and 2.1.2 above, the following properties should be reported by liquid category:

.1 crude oil:

Kinematic viscosity at 20 and 50ºC – mm^2/sec:
Pour point temperature – ºC
Cloud point temperature – ºC
Reid vapour pressure – kPa
Asphaltene content - % wt.

.2 residual and fuel oils, including ship's bunkers:

Parameters stipulated by table 2 of ISO 8217
Identification of differing additives and their percentage in the shipped liquid
Asphaltene content - % wt

.3 unfinished distillates, hydraulic oils and lubricating oils:

Kinematic viscosity at 20 and 40ºC – mm^2/sec
Flash point (PMCC) – ºC
Pour point temperature – ºC
Cloud point temperature – ºC
Reid vapour pressure – kPa
Identification of differing additives and their percentage in the shipped liquid
Asphaltene content - % wt

.4 gas oils, including ship's bunkers:

Parameters stipulated by table 1 of ISO 8217
Identification of differing additives and their percentage in the shipped liquid
Asphaltene content - %wt

.5 kerosenes:

Total acidity – mgKOH/g
Aromatic content - % volume
Flash point – ºC
Identification of differing additives and their percentage in the shipped liquid

.6 napthas and condensates:

Total acidity – mgKOH/g
Aromatic content - % volume
Flash point – ºC
Reid vapour pressure – kPa

.7 gasoline blending stocks:

Aromatic content - % volume
Reid vapour pressure - kPa
Flash point – ºC

.8 gasolines and spirits:

Total acidity – mgKOH/g
Aromatic content - % volume
Reid vapour pressure - kPa
Identification of differing additives and their percentage in the shipped liquid; and

.9 asphalt solutions:

Aromatic content - % volume
Flash point (PMCC) – ºC
Asphaltene content - % wt
Identification of differing additives and their percentage in the shipped liquid
Pour point – ºC.

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