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COMITÉ D'EXPERTS DU TRANSPORT DES
MARCHANDISES DANGEREUSES ET DU SYSTÈME
GÉNÉRAL HARMONISÉ DE CLASSIFICATION ET
D'ÉTIQUETAGE DES PRODUITS CHIMIQUES

Sous-Comité d'experts du transport
des marchandises dangereuses

Trente-troisième session
Genève, 30 juin-9 juillet (matin) 2008
Point 4 de l'ordre du jour provisoire

INSCRIPTION, CLASSEMENT ET EMBALLAGE

Nouvelle rubrique pour l'iode brut affecté à la classe 8

Communication de l'expert de l'Allemagne*

Introduction

1. À l'heure actuelle, la matière iode brut est expédiée de par le monde en grandes quantités, la tendance étant à la hausse.
2. Au cours de contrôles, en Allemagne, il a été découvert que cette matière était classée par les expéditeurs de plusieurs façons:
 - Comme une marchandise non dangereuse;
 - Comme un polluant marin relevant de la classe 9, sous le numéro ONU 3077, le groupe d'emballage étant le groupe III;

* Conformément au programme de travail du Sous-Comité pour la période 2007-2008, adopté par le Comité à sa troisième session (voir ST/SG/AC.10/C.3/60, par. 100, et ST/SG/AC.10/34, par. 14).

- Comme une matière relevant de la classe 8, sous le numéro ONU 1759, les groupes d'emballage étant les groupes II ou III;
- Comme une matière relevant de la classe 8 avec risque subsidiaire 6.1, sous le numéro ONU 2923, le groupe d'emballage étant le groupe II;
- Comme un polluant marin relevant de la division 6.1 avec risque subsidiaire 8, sous le numéro ONU 3290, le groupe d'emballage étant le groupe II.

3. Pour des raisons de sécurité, les marchandises dangereuses transportées à l'échelle mondiale en aussi grandes quantités devraient se voir attribuer des numéros ONU individuels, parce que, d'une part, cela favorise l'utilisation d'une norme de sécurité unique dans les transports multimodaux à travers le monde et, d'autre part, seules des rubriques ONU individuelles permettent l'affectation de dispositions d'emballage spécifiques et d'instructions d'entreposage opérationnel spécifiques, un traitement spécifique, une identification plus rapide et un accès aux informations relatives à la sécurité pour l'intervention en cas d'urgence.

Pour ces raisons, l'expert de l'Allemagne propose d'introduire une nouvelle rubrique, comme libellée ci-dessous (voir la fiche de renseignements en annexe).

Proposition

4. a) Ajouter dans la Liste des marchandises dangereuses la nouvelle rubrique 3xxx, ainsi conçue:

N° ONU	Nom et description	Classe ou division	Risque subsidiaire	Groupe d'emballage	Dispositions spéciales	Quantités limitées et quantités exceptées		Emballages et GRV		Citernes mobiles et conteneurs pour vrac	
								Instructions d'emballage	Dispositions spéciales	Instruction de transport	Dispositions spéciales
(1)	(2)	(3)	(4)	(5)	(6)	(7a)	(7b)	(8)	(9)	(10)	(11)
3xxx	IODE BRUT	8	6.1	II	-	1 kg	E2	P002 IBC08	B2, B4	T3	TP 33

- b) Ajouter comme suit dans l'index alphabétique une rubrique pour l'iode brut:

IODE BRUT

8

3xxx

* * *

Figure 1

**DATA SHEET TO BE SUBMITTED TO THE UNITED NATIONS
FOR NEW OR AMENDED CLASSIFICATION OF SUBSTANCES**

Submitted by.....GERMANY Date

Supply all relevant information including sources of basic classification data. Data should relate to the product in the form to be transported. State test methods. Answer all questions – if necessary state «not known» or «not applicable» – If data is not available in the form requested, provide what is available with details. Delete inappropriate words.

Section 1. SUBSTANCE IDENTITY

- 1.1 Chemical name **Iodine, raw**
- 1.2 Chemical formula **I₂**
- 1.3 Other names/synonyms
- 1.4.1 UN number **3XXX**.....1.4.2 CAS number **7553-56-2**
- 1.5 Proposed classification for the Recommendations
- 1.5.1 Proper shipping name (3.1.2¹) **IODINE, RAW**.....
- 1.5.2 Class/division **8**..... subsidiary risk(s) **6.1**
- packing group **II**
- 1.5.3 Proposed special provisions, if any
- 1.5.4 Proposed packing instruction(s)

Section 2. PHYSICAL PROPERTIES

- 2.1 Melting point or range**114** °C
- 2.2 Boiling point or range**184** °C
- 2.3 Relative density at:
- 2.3.1.....15 °C
- 2.3.2.....20 °C **4,94**
- 2.3.3.....50 °C
- 2.4 Vapour pressure at:
- 2.4.1.....50 °C **0,287** kPa
- 2.4.2.....65 °C kPa
- 2.5 Viscosity at 20 °C² **n.a.** m²/s

¹ This and similar references are to chapters and paragraphs in the Model Regulations on the Transport of Dangerous Goods.

- 2.6 Solubility in water at 20 °C**0,03** g/100 ml
- 2.7 Physical state at 20°C (2.2.1.1¹) **solid**²
- 2.8 Appearance at normal transport temperatures, including colour and odour
bluish-black crystals; metallic luster, pungent odor
.....
- 2.9 Other relevant physical properties
.....
.....

Section 3. FLAMMABILITY

- 3.1 Flammable vapour
 - 3.1.1 Flash point (2.3.3¹) **n.a.** °C oc/cc
 - 3.1.2 Is combustion sustained? (2.3.1.3¹) **no**
- 3.2 Autoignition temperature °C
- 3.3 Flammability range (LEL/UEL)**n.a.** %
- 3.4 Is the substance a flammable solid? (2.4.2¹) **no**
 - 3.4.1 If yes, give details
 -
 -
 -

Section 4. CHEMICAL PROPERTIES

- 4.1 Does the substance require inhibition/stabilization or other treatment such as nitrogen blanket to prevent hazardous reactivity? **no**
If yes, state:
 - 4.1.1 Inhibitor/stabilizer used
 - 4.1.2 Alternative method
 - 4.1.3 Time effective at 55 °C
 - 4.1.4 Conditions rendering it ineffective

¹ This and similar references are to chapters and paragraphs in the Model Regulations on the Transport of Dangerous Goods.

² See definition of «liquid» in 1.2.1 of the Model Regulations on the Transport of Dangerous Goods.

- 4.2 Is the substance an explosive according to paragraph 2.1.1.1? (2.1¹) **no**
4.2.1 If yes, give details.....
.....
.....
- 4.3 Is the substance a desensitized explosive? (2.4.2.4¹) **no**
4.3.1 If yes, give details.....
.....
.....
- 4.4 Is the substance a self-reactive substance? (2.4.1¹) **no**
If yes, state:
4.4.1 Exit box of flow chart.....
What is the self-accelerating decomposition temperature (SADT) for a 50 kg package?°C
Is the temperature control required? (2.4.2.3.4¹) yes/no
4.4.2 Proposed control temperature for a 50 kg package °C
4.4.3 Proposed emergency temperature for a 50 kg package .. °C
- 4.5 Is the substance pyrophoric? (2.4.3¹) **no**
4.5.1 If yes, give details.....
.....
.....
- 4.6 Is the substance liable to self-heating? (2.4.3¹) **no**
4.6.1 If yes, give details.....
.....
.....

¹ This and similar references are to chapters and paragraphs in the Model Regulations on the Transport of Dangerous Goods.

- 4.7 Is the substance an organic peroxide (2.5.1¹) **no**
If yes state:
4.7.1 Exit box of flow chart.....
What is the self accelerating decomposition temperature (SADT) for a 50 kg package?°C
Is temperature control required? (2.5.3.4.1¹) yes/no
4.7.2 Proposed control temperature for a 50 kg package..... °C
4.7.3 Proposed emergency temperature for a 50 kg package... °C
- 4.8 Does the substance in contact with water emit flammable gases? (2.4.4¹) **no**
4.8.1 If yes, give details
.....
.....
- 4.9 Does the substance have oxidizing properties (2.5.1¹) **no**
4.9.1 If yes, give details
.....
.....
- 4.10 Corrosivity (2.8¹) to:
4.10.1mild steel mm/year at °C
4.10.2aluminium mm/year at °C
4.10.3other packaging materials (specify)
mm/year at °C
mm/year at °C
- 4.11 Other relevant chemical properties.....
.....
.....
.....

¹ This and similar references are to chapters and paragraphs in the Model Regulations on the Transport of Dangerous Goods.

Section 5. HARMFUL BIOLOGICAL EFFECTS

- 5.1 LD₅₀, oral (2.6.2.1.1¹)..... **1840** mg/kg Animal species **rat**.....
LD_{LO}, oral (2.6.2.1.1¹)..... **800** mg/kg Animal species **dog**.....
5.2 LD₅₀, dermal (2.6.2.1.2¹) mg/kg Animal species **no animal data available**
5.3 LC_{LO}, inhalation (2.6.2.1.3¹) **0.8** mg/litre Animal species **rat** Exposure time **1** hours
or ml/m³. Animal species
5.4 Saturated vapour concentration at 20 °C (2.6.2.2.4.3¹) ml/m³
5.5 Skin exposure (2.8¹) results Exposure time hours/minutes
Animal species **no animal data available**
5.6 Other data

Octanol/water partition coefficient as log Pow: 2.49

Fish, LC50: 0.44 mg/kg

- 5.7 Human experience

Several incidences of accidental poisoning have been reported after oral, dermal or inhalative exposure. The observed acute toxic effects of iodine are mainly due to its irritating and corrosive effects on the gastrointestinal and respiratory tract, skin, and eyes. Locally, iodine affects cells in a way similar to that of a corrosive acid. After ingestion or inhalation of iodine, oedema of the glottis or pulmonary oedema have been reported. Skin contact may give rise to skin eruption. Iodine vapour causes irritation and lachrymation in human eyes.

Section 6. SUPPLEMENTARY INFORMATION

- 6.1 Recommended emergency action

- 6.1.1 Fire (include suitable and unsuitable extinguishing agents)

Toxic gases and vapors may be released if involved in a fire. Wear full protective clothing and self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Use any means suitable for extinguishing surrounding fire. Water spray may be used to keep fire exposed containers cool.

¹ This and similar references are to chapters and paragraphs in the Model Regulations on the Transport of Dangerous Goods.

6.1.2 Spillage

Notify safety personnel of iodine spill or leaks. Ventilate area of leak or spill. Wear protective equipment (supplied air, full-facepiece respirator, airlined hood, or full-facepiece selfcontained breathing apparatus; impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact; chemical safety goggles and/or a full face shield where splashing is possible). Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Collect and containerize as much solid iodine as possible. Cover the spill area with an excess of reducing agent (sodium thiosulfate, bisulfate, or ferrous salts in 3M sulfuric acid) and then neutralize with soda ash. Collect slurry into approved containers.

6.2 Is it proposed to transport the substance in:

6.2.1 Bulk Containers (6.8¹) **yes/no**

6.2.2 Intermediate Bulk Containers (6.5¹)? **yes/æ**

6.2.3 Portable tanks (6.7¹)? **yes/æ**

If yes, give details in Sections 7, 8 and/or 9.

Section 7. BULK CONTAINERS (only complete if yes in 6.2.1)

7.1 Proposed type(s)

Section 8. INTERMEDIATE BULK CONTAINERS (IBCs) (only complete if yes in 6.2.2)

8.1 Proposed type(s) **All types listed in packing instruction IBC08**

Section 9. MULTIMODAL TANK TRANSPORT (only complete if yes in 6.2.3)

9.1 Description of proposed tank (including IMO tank type if known) **T3**

9.2 Minimum test pressure **2,65 bar**

9.3 Minimum shell thickness **5 mm**

9.4 Details of bottom openings, if any **2 shut-off devices**

9.5 Pressure relief arrangements **Normal type**

9.6 Degree of filling

9.7 Unsuitable construction materials**polyethylene, polyvinyl chloride, natural and synthetic rubber**

¹ This and similar references are to chapters and paragraphs in the Model Regulations on the Transport of Dangerous Goods.