

**Committee of Experts on the Transport of Dangerous Goods  
and on the Globally Harmonized System of Classification  
and Labelling of Chemicals**

14 June 2013

**Sub-Committee of Experts on the  
Transport of Dangerous Goods**

**Forty-third session**

Geneva, 24 – 28 June 2013

Item 11 (f) of the provisional agenda

**Issues relating to the Globally Harmonized System  
of Classification and Labelling of Chemicals:  
Miscellaneous**

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

**Twenty-fifth session**

Geneva, 1 – 3 July 2013

Item 4 (a) of the provisional agenda

**Implementation of the GHS:  
Development of a list of chemicals classified in  
accordance with the GHS**

**Comparison between transport classification (Rev.17) and  
EU CLP Regulation (up to its 4<sup>th</sup> adaptation to technical  
progress)**

**Note by the secretariat**

**Background**

1. The Sub-Committee has been considering the development of a list of chemicals classified in accordance with the GHS since 2009.
2. The discussions started at the eighteenth session (December 2009), on the basis of an informal document submitted by the expert from Australia (see also the report of the sub-committee on that session, document ST/SG/AC.10/C.4/36, paragraphs 34-38). Further consideration to this matter was given at the following sessions, and as a result of the discussions, a set of guiding principles for the development of the list was adopted by the Sub-Committee in December 2012 at its twenty-fourth session (refer to ST/SG/AC.10/C.4/48, para. 35 and Annex III).
3. One of issues raised during the discussion was how to address possible conflicts between the GHS harmonized list and other existing lists established for different purposes (e.g. transport) which could lead to conflicting labelling requirements and consequent confusion.
4. To illustrate the situation, the secretariat submitted an information document to the TDG and GHS sub-committees (37<sup>th</sup> and 19<sup>th</sup> sessions respectively)<sup>1</sup> comparing the classification of substances deemed to be the most commonly carried (as contained in the 16<sup>th</sup> revised edition of the United Nations Recommendations on the Transport of Dangerous Goods, Model Regulations), with that contained in table 3.1 (List of harmonized classification and labelling of hazardous substances) of Annex VI of the CLP Regulation<sup>2</sup>,

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<sup>1</sup> INF.12 (TDG) and INF.7 (GHS), available at:

<http://www.unece.org/fileadmin/DAM/trans/doc/2010/ac10c4/UN-SCEGHS-19-INF07.pdf>

<sup>2</sup> Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, as amended in by Regulation (EC) No 790/2009, the so-called (1<sup>st</sup> adaptation to technical progress)

as amended by Regulation No 790/2009 of 10 August 2009 for the purposes of its adaptation to technical and scientific progress (the so-called 1<sup>st</sup> ATP).

5. Since then, the Model Regulations and the CLP have been revised (17<sup>th</sup> revised edition of the Model Regulations and 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> adaptations to technical and scientific progress to the CLP)<sup>3</sup>. The provisions of the 5<sup>th</sup> revised edition of the GHS (which is in line with the 18<sup>th</sup> revised edition of the Model Regulations) are expected to be taken into account in forthcoming ATPs to the CLP.

6. The secretariat provides in this document an update of the comparison list circulated in June 2010. The update takes account of the provisions of the 17<sup>th</sup> revised edition and the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> adaptations to technical progress to the CLP.

7. The TDG and GHS **sub-committees are invited** to take into account the information provided when considering the development of a harmonised list of chemicals classified in accordance with the GHS or when addressing current inconsistencies between the classification in the dangerous goods list with other existing classification lists for supply and use.

### **Amendments from the dangerous goods list in the Model Regulations (17th revised edition)**

8. Most of the amendments to the dangerous goods list which were incorporated into the 17<sup>th</sup> revised edition of the Model Regulations<sup>4</sup> were related to transport provisions (e.g. generic, packing or portable tank and bulk container provisions; limited and excepted quantities) and did not have an impact on classification.

9. Several new entries were introduced but were either related to articles (e.g. Batteries, capacitors) or to chemicals for which no specific entry is given in the CLP (e.g. chemicals under pressure, n.o.s; Krill meal).

10. The only change affecting classification applied to UN 2809 (Mercury) for which a subsidiary risk 6.1 (toxic) was introduced (see annex).

### **Amendments from the CLP (2nd, 3rd and 4th ATPs)**

11. Changes from the 2nd ATP refer mainly to labelling provisions and apply to Methyl bromide (UN 1062), Carbon tetrachloride (UN 1846) and to 1,1,1-Trichloroethane (UN 2831). Also, note “H” in table 3.1 of the CLP was deleted (apply to UN Nos. 1075, 1136, 1202 and 1203) (see annex).

12. In the 3<sup>rd</sup> ATP, changes were made to the classification of Ethylene glycol monoethyl ether (UN 1171) and Tetrahydrofuran (UN 2056) (see annex).

13. The secretariat notes that the acute toxicity category (inhalation) for UN 1171 has been upgraded from Cat. 4 to Cat.3, which entails a **discrepancy with the current transport classification, and raises the question whether the transport classification for UN 1171 may need to be revised to check if a subsidiary risk corresponding to the toxic by inhalation properties of the substance have to be addressed by transport regulations**. However, this raises again the question of clarification of substances already classified in lists of mandatory application such as the list of the Model Regulations on the

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<sup>3</sup> Regulation EC No.286/2011 of 10 March 2011 (2<sup>nd</sup> ATP); Regulation (EC) No 618/2012 of 10 July 2012 (3<sup>rd</sup> ATP) and Regulation (EC) No. 487/2013 (4<sup>th</sup> ATP).

<sup>4</sup> For the list of amendments to the 16th revised edition which were incorporated into the 17th revised edition refer to document ST/SG/AC.10/38/Add.1.

transport of dangerous goods. The secretariat had already suggested that the development of a GHS list should start with substances currently listed in that list and still feels that this should be a priority to avoid conflicts for substances which are considered to be the most commonly carried internationally.

14. In the 4<sup>th</sup> ATP, the supplemental hazard code EUH006 (“Explosive with or without contact with air”) was deleted against Acetylene, dissolved (UN 1001) (see annex).

## Annex

### List of amendments to the comparison table

1. Reference is made to the comparison table circulated to the TDG and GHS sub-committees in June 2010 as information document INF.12 (TDG, 37th session) and INF.7 (GHS, 19<sup>th</sup> session)<sup>5</sup>.
2. The tables hereafter show in visible mode (track-changes) the amendments to the entries mentioned in paragraphs 8 to 14 above.

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<sup>5</sup> <http://www.unece.org/fileadmin/DAM/trans/doc/2010/ac10c4/UN-SCEGHS-19-INF07.pdf>

## Amendments from the 17<sup>th</sup> revised edition of the Model Regulations

### Amendments to UN 2809: MERCURY

UNMR Rev.16/17	UN No.	2809
	Proper shipping name/ additional data FP = flash point BP = Boiling point	MERCURY
	Class or Div.	8
	Subsidiary risk	<a href="#">6.1</a>
	Packing Group	III
	Special Provision	<a href="#">365</a>
	CLP Regulation	Index No.
Int. Chem. ID		mercury
EC No.		231-106-7
CAS No.		7439-97-6

### Classification

CLP regulation							Classif. TDG - GHS	Classif. CLP - GHS	
Classification		Labelling			Specific Conc. Limits, M-factors	Notes	ATP inserted/ ATP Updated	P= Marine pollutant PP= Severe marine pollutant	* highest minimum classif
Haz Class +Cat	Haz Stat	Pict, SW	Haz stat	Suppl. Haz. St.					
Ac. Tox. 3 * STOT RE 2* Aq. Ac. 1 Aq. Chronic 1	H331 H373** H400 H410	GHS06 GHS08 GHS09 <b>Dgr</b>	H331 H373** H410				CLP00/01	Corr. 1C <a href="#">Ac.Tox.3</a>  P	Ac.Tox.3* Aq.Ac.1 Aq.Chr.1

### Comments

A subsidiary risk “toxic” (Division 6.1 in transport) was introduced in the 17<sup>th</sup> revised edition of the Model Regulations. However, **the difference in the classification between transport regulations and CLP-GHS still remain**, since it is classified as corrosive (1C) in transport regulations but not in the CLP.

## Amendments from the 2<sup>nd</sup> ATP to the CLP regulation

### Amendments to UN 1062: METHYL BROMIDE with not more than 2% chloropicrin

UNMR Rev.16/17	UN No.	1062
	Proper shipping name/ additional data FP = flash point BP = Boiling point	METHYL BROMIDE with not more than 2% chloropicrin LC50 (mg/m3) (4h) = 425
	Class or Div.	2.3
	Subsidiary risk	
	Packing Group	
	Special Provision	23
	CLP Regulation	Index No.
Int. Chem. ID		bromomethane; methylbromide
EC No.		200-813-2
CAS No.		74-83-9

### Classification

CLP regulation							Classif. TDG - GHS	Classif. CLP - GHS	
Classification		Labelling			Specific Conc. Limits, M-factors	Notes	ATP inserted/ ATP Updated	P= Marine pollutant PP= Severe marine pollutant	* highest minimum classif
Haz Class +Cat	Haz Stat	Pict, SW	Haz stat	Suppl. Haz. St.					
Press. Gas Muta. 2 Ac. Tox. 3 * Ac. Tox. 3 * STOT RE 2 * Eye Irrit. 2 STOT SE 3 Skin Irrit. 2 Aq. Ac. 1 Ozone <u>1</u>	H341 H331 H301 H373 ** H319 H335 H315 H400 <u>EUH059</u> <u>H420</u>	GHS04 GHS06 GHS08 GHS09 <b>Dgr</b>	H341 H331 H301 H373 ** H319 H335 H315 H400 <u>H420</u>	<u>EUH059</u>		U	CLP00/02	Press. Gas (liq.dis) Ac.tox.2	Press. Gas  Ac.Tox 3* Aq. Ac.1

### Comments

No change in the classification comparison results from the previous version of the table,

The amendments relate only to labelling provisions for supply and use:

Following the alignment of the previous EU hazard class for substances and mixtures hazardous to the ozone layer with the equivalent hazard class in the GHS. Code EUH059 (Dangerous to the ozone layer) replaced by H420 (Harms public health and the environment by destroying ozone in the upper atmosphere).

**Amendments to UN 1846: CARBON TETRACHLORIDE**

<b>UNMR Rev.16/17</b>	<b>UN No.</b>	1846
	<b>Proper shipping name/ additional data FP = flash point BP = Boiling point</b>	CARBON TETRACHLORIDE
	<b>Class or Div.</b>	6.1
	<b>Subsidiary risk</b>	
	<b>Packing Group</b>	II
	<b>Special Provision</b>	
	<b>CLP Regulation</b>	<b>Index No.</b>
	<b>Int. Chem. ID</b>	carbon tetrachloride; tetrachloromethane
	<b>EC No.</b>	200-262-8
	<b>CAS No.</b>	56-23-5

*Classification*

CLP regulation							Classif. TDG - GHS	Classif. CLP - GHS	
Classification		Labelling			Specific Conc. Limits, M-factors	Notes	ATP inserted/ ATP Updated	P= Marine pollutant PP= Severe marine pollutant	* highest minimum classif
Haz Class +Cat	Haz Stat	Pict. SW	Haz stat	Suppl. Haz. St.					
Carc. 2 Ac. Tox. 3 * Ac.Tox. 3 * Ac.Tox. 3 * STOT RE 1 Aq. Chronic 3 Ozone 1	H351 H331 H311 H301 H372 ** H412 <a href="#">EUH059</a> <a href="#">H420</a>	GHS06 GHS08 <b>Dgr</b>	H351 H331 H311 H301 H372 ** H412 <a href="#">H420</a>	<a href="#">EUH059</a>	* STOT RE 1; H372: C ≥ 1 % STOT RE 2; H373: 0,2 % ≤ C < 1 %	CLP00/ <a href="#">02</a>	Ac.tox.2 P	Ac.tox.3* Aq.Chr.3	

*Comments*

No change in the classification comparison results from the previous version of the table,

The amendments relate only to labelling provisions for supply and use:

Following the alignment of the previous EU hazard class for substances and mixtures hazardous to the ozone layer with the equivalent hazard class in the GHS. Code EUH059 (Dangerous to the ozone layer) replaced by H420 (Harms public health and the environment by destroying ozone in the upper atmosphere).

**Amendments to UN 2831: 1,1,1-TRICHLOROETHANE**

<b>UNMR Rev.16/17</b>	<b>UN No.</b>	2831
	<b>Proper shipping name/ additional data FP = flash point BP = Boiling point</b>	1,1,1-TRICHLOROETHANE
	<b>Class or Div.</b>	6.1
	<b>Subsidiary risk</b>	
	<b>Packing Group</b>	III
	<b>Special Provision</b>	
	<b>CLP Regulation</b>	<b>Index No.</b>
	<b>Int. Chem. ID</b>	1,1,1-trichloroethane; methyl chloroform
	<b>EC No.</b>	200-756-3
	<b>CAS No.</b>	71-55-6

*Classification*

CLP regulation							Classif. TDG - GHS	Classif. CLP - GHS	
Classification		Labelling			Specific Conc. Limits, M-factors	Notes	ATP inserted/ ATP Updated	P= Marine pollutant PP= Severe marine pollutant	* highest minimum classif
Haz Class +Cat	Haz Stat	Pict, SW	Haz stat	Suppl. Haz. St.					
Acute Tox. 4 * Ozone <u>1</u>	H332 <a href="#">EUH059</a> <a href="#">H420</a>	GHS07 Wng	H332 <a href="#">H420</a>	<a href="#">EUH059</a>		F	<a href="#">CLP00/02</a>	Ac.Tox.3	Ac.Tox.4*

*Comments*

No change in the classification comparison results from the previous version of the table. The amendments relate only to labelling provisions for supply and use:

Following the alignment of the previous EU hazard class for substances and mixtures hazardous to the ozone layer with the equivalent hazard class in the GHS. Code EUH059 (Dangerous to the ozone layer) replaced by H420 (Harms public health and the environment by destroying ozone in the upper atmosphere).

**Amendments to UN 1075, 1136, 1202 and 1203**

Note “H” to table 3.1 in Annex VI of the CLP is deleted.

“*Note H (Table 3.1):*

*The classification and label shown for this substance applies to the dangerous property(ies) indicated by the risk phrase(s) in combination with the category(ies) of danger shown. Manufacturers, importers and downstream users of this substance shall be obliged to carry out an investigation to make themselves aware of the relevant and accessible data which exists for all other properties to classify and label the substance. The final label shall follow the requirements of section 7 of Annex VI to Directive 67/548/EEC.”.*



## Amendments from the 3rd ATP to the CLP Regulation

## Amendments to UN 1171: ETHYLENE GLYCOL MONOETHYL ETHER

UNMR Rev.16/17	UN No.	1171
	Proper shipping name/ additional data FP = flash point BP = Boiling point	ETHYLENE GLYCOL MONOETHYL ETHER
	Class or Div.	3
	Subsidiary risk	
	Packing Group	III
	Special Provision	
	CLP Regulation	Index No.
Int. Chem. ID		2-ethoxyethanol; ethylene glycol monoethyl ether
EC No.		203-804-1
CAS No.		110-80-5

## Classification

CLP regulation							Classif. TDG -GHS	Classif. CLP -GHS	
Classification		Labelling			Specific Conc. Limits, M-factors	Notes	ATP inserted/ ATP Updated	P= Marine pollutant PP= Severe marine pollutant	* highest minimum classif
Haz Class +Cat	Haz Stat	Pict, SW	Haz stat	Suppl. Haz. St.					
Flam. Liq. 3 Repr. 1B Ac. Tox. 4* <sup>3</sup> Ac. Tox. 4* <del>Ac. Tox. 4*</del>	H226 H360FD <a href="#">H332H331</a> <a href="#">H312H302</a>	GHS02 GHS08 <a href="#">GHS07</a> <a href="#">GHS06</a> Dgr	H226 H360FD <a href="#">H332H331</a> <a href="#">H312</a> H302				CLP00/ <a href="#">03</a>	Flam.3	Flam. Liq. 3 Ac.Tox. 4* <sup>3</sup> <a href="#">(inhal.)</a>

## Comments

The classification of the substance with regard to its acute toxicity changed with the 3<sup>rd</sup> ATP to the CLP.

<i>Initial classification (CLP00)</i>	<i>Updated classification (ATP03)</i>
Acute toxicity Cat. 4 (inhalation)	Acute toxicity Cat. 3 (inhalation)
Acute toxicity Cat. 4 (oral)	Acute toxicity Cat. 4 (oral)
Acute toxicity Cat. 4 (dermal)	Not classified

The secretariat notes that the acute toxicity category (inhalation) for UN 1171 has been upgraded from Cat. 4 to Cat.3, which entails a **discrepancy with the current transport classification** (refer to paragraph 13 in this document).

Amendments to UN 2056: TETRAHYDROFURAN

UNMR Rev.16/17	UN No.	2056
	Proper shipping name/ additional data FP = flash point BP = Boiling point	TETRAHYDROFURAN
	Class or Div.	3
	Subsidiary risk	
	Packing Group	II
	Special Provision	
CLP Regulation	Index No.	603-025-00-0
	Int. Chem. ID	tetrahydrofuran
	EC No.	203-726-8
	CAS No.	109-99-9

Classification

CLP regulation							Classif. TDG - GHS	Classif. CLP - GHS	
Classification		Labelling			Specific Conc. Limits, M-factors	Notes	ATP inserted/ ATP Updated	P= Marine pollutant PP= Severe marine pollutant	* highest minimum classif
Haz Class +Cat	Haz Stat	Pict, SW	Haz stat	Suppl. Haz. St.					
Flam. Liq. 2 Eye Irrit. 2 STOT SE 3 <a href="#">Carc.2</a>	H225 H319 H335 <a href="#">H351</a>	GHS02 GHS07  <a href="#">GHS08</a> Dgr	H225 H319 H335 <a href="#">H351</a>	EUH019	Eye Irrit. 2; H319: C ≥ 25 % STOT SE 3; H335: C ≥ 25 %		<a href="#">CLP00/03</a>	Flam.2	Flam. Liq. 2

Comments

The substance is now classified as Carcinogenic (Cat.2) (Suspected of causing cancer). Since this hazard class is not covered by transport regulations, the change has no implications for the existing classification under the Model Regulations.

## Amendments from the 4th ATP to the CLP Regulation

### Amendments to UN 1001: ACETYLENE DISSOLVED

<b>UNMR Rev.16/17</b>	<b>UN No.</b>	1001
	<b>Proper shipping name/ additional data FP = flash point BP = Boiling point</b>	ACETYLENE DISSOLVED
	<b>Class or Div.</b>	2.1
	<b>Subsidiary risk</b>	
	<b>Packing Group</b>	
	<b>Special Provision</b>	
	<b>CLP Regulation</b>	<b>Index No.</b>
<b>Int. Chem. ID</b>		acetylene; ethyne
<b>EC No.</b>		200-816-9
<b>CAS No.</b>		74-86-2

### Classification

CLP regulation							Classif. TDG -GHS	Classif. CLP -GHS	
Classification		Labelling			Specific Conc. Limits, M-factors	Notes	ATP inserted/ ATP Updated	P= Marine pollutant PP= Severe marine pollutant	* highest minimum classif
Haz Class +Cat	Haz Stat	Pict, SW	Haz stat	Suppl. Haz. St.					
Flam. Gas 1 Press. Gas	H220	GHS02 GHS04 Dgr	H220	<del>EUH006</del>		U	CLP00/04	Flam. Gas.1	Flam. Gas 1 Press. Gas

### Comments

The supplemental labelling code EUH006 (Explosive with or without contact with air) is no longer needed for this substance. The change has no implications for the existing classification under the Model Regulations.