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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

Seventh session, 14-16 July 2004  
Item 2 (c) (i) of the provisional agenda

#### CLASSIFICATION AND LABELLING OF OZONE DEPLETING SUBSTANCES

#### Transmitted by the expert from Finland

### INTRODUCTION

1. At its 6<sup>th</sup> session in December 2003, the Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals agreed to set up a Correspondence Group on Ozone Depleting Substances (ODS) (ST/SG/AC.10/C.4/12, para 48) to address the issues raised in the discussion on the proposal concerning classification and labelling of ozone depleting substances (ST/SG/AC.10/C.4/2003/6).

2. The ODS correspondence group consists of experts from Austria, Brazil, Finland, France, Germany, Italy, Japan, Norway, United States of America and International Council of Chemical Associations. The correspondence group is lead by Finland.

### PROGRESS OF WORK

3. The expert from Finland prepared a document for consideration of the correspondence group addressing the issues raised in the discussion at the 6<sup>th</sup> Session of Sub-Committee. They are:

- ?? identification of substances for GHS (whether the list of substances of ozone depleting substances of Montreal Protocol should be used for the GHS)
- ?? what should be the cut-off value for classification of mixtures containing ozone depleting substances
- ?? how the hazard communication elements of the label should look like (pictogram)
- ?? how hazard communication elements of the label should be specified (identification of substances on the label).

The expert from Finland provided justified options to the correspondence group to find a solution to the outstanding issues. The document on options is attached as Annex 1 to this document.

The working document was circulated to the correspondence group and to the Secretariat of the Montreal Protocol by the Secretariat (see Annex 2). Comments and suggestions to the working document were requested by 1 April 2004.

4. Only one expert, expert from Germany, responded to the request by 1 April. German response is attached (Annex 3). The expert supported

?? option 1 concerning identification of ozone depleting substances for the GHS (to use lists of Montreal Protocol for the purposes of the GHS);

?? option 1 (cut off 0,1 %) concerning cut-off value for classification of mixtures containing ozone depleting substances;

?? no firm position concerning options for pictogram (option 1: the present pictogram adopted by the GHS for dangerous for the environment; option 2: a modified pictogram of the present GHS pictogram for dangerous for the environment: upper part of the pictogram with white and yellow stripes, or upper part of the pictogram completely yellow);

?? option 1 for naming of substances on the label (normal rules of GHS should apply which would allow identification of substances in terms of Montreal protocol).

5. Expert from France indicated later in June support for the views of the German expert on the preferred options.

#### **GUIDANCE FOR CONTINUATION OF THE WORK**

6. The Sub-Committee is invited to discuss the working document with different options for the classification and labelling of ODS and to provide guidance for continuation of work in the correspondence group.

## ANNEX 1

### ISSUES AND OPTIONS TO BE DISCUSSED AND RESOLVED FOR OZONE DEPLETING SUBSTANCES (ODS)

#### Issues raised in the discussion at SCEGHS

Document ST/SG/AC.10/C.4/2003/6 submitted to the SCEGHS proposes classification criteria for ozone depleting substances and subsequent harmonized labelling requirements for ozone depleting substances and mixtures. At the discussion in SCEGHS 6<sup>th</sup> Session in December 2003 the proposal was welcomed by many experts of the Subcommittee. The following issues were raised for further discussion:

- ?? cut-off value for classification of mixtures (proposal 0,1 %)
- ?? hazard communication elements of the label, in particular
  - the pictogram, taking into account that
    - ~~the~~ transport system is in the process of incorporating the same pictogram for substances and mixtures that are dangerous for the aquatic environment
    - ~~the~~ pictogram should also pass the information that ODS may be hazardous to the human health
  - identification of ozone depleting substances on the label, taking into account that the World Customs Organization is currently further developing customs codes for ODS's (informal document UN/SCEGHS/6/INF. 13 submitted after the December Session of the SCEGHS)
- ?? the exclusive list of ozone depleting substances for classification purposes within the GHS.

In addition it should be noted that ODS classification and labelling should be dealt in close cooperation with the experts and Secretariat of the Montreal Protocol.

#### Options for solving the issues raised

##### 1 Classification criteria based on the list of ozone depleting substances as included in the Annexes of Montreal Protocol

###### *Option 1*

Substances listed in Annex A, B, C or E of Montreal Protocol are classified as ODS within GHS (as proposed in ST/SG/AC.10/C.4/2003/6).

This approach can be justified by the following:

1) Identification of ozone depleting hazards of substances is a very complicated process and requires special expertise. If classification within the GHS were recognised on the basis of the general definition of Montreal protocol without lists of substances, a conflict might occur between the two international instruments, the GHS and Montreal Protocol. If some substances not included in Annexes of Montreal Protocol were recognised as such within the GHS, this might cause confusion among the users of such chemicals around the world.

2) The general definition of the ozone depleting substances within the EU legislation has not, as far as is known, led to classification of any other substances than those listed in Annexes to Montreal Protocol.

3) The proposed way of classification of ODS's would be simple for everyone to follow.

4) The general definition of ozone depletion is not always unambiguous (for example the ozone depletion potential for very short lived compounds depends on the specific location of the emission on earth surface).

### ***Option 2***

Substances fulfilling the criteria of ozone depleting substances of Montreal Protocol would be classified as ODS's within the GHS.

This option can be justified by the following:

1) GHS is not using lists of hazardous substances in any other context, but is based on the general definitions and criteria for classification to be applied by the suppliers or users of chemicals.

2) The general definition included in the present EU legislation has not led to application of criteria more widely than to those substances listed in Annexes of Montreal Protocol.

3) CA's and systems would still have the option available to provide the lists of Annexes of Montreal Protocol as guidance.

## **2 Cut-off value for classification of mixtures as OD**

### ***Option 1***

Mixtures are classified as ozone depleting when at least one ingredient has been classified as ozone depleting and is present at or above the cut-off concentration limit  $\geq 0,1 \%$ .

This option can be justified by the following:

1) This cut-off concentration is used in one existing system (EU). GHS is supposed to be based on existing systems without lowering the level of protection.

2) The general cut-off concentration has no scientific background, but is based on the similar principle as setting of general cut-off's for other hazardous end-points, like e.g. for aquatic hazards. The general cut-off's most often used within the GHS are 10 %, 1 % or 0,1 %.

3) Ozone depleting hazard is a serious hazard that would warrant application of cut-off concentration 0,1 %.

### ***Option 2***

Mixtures are classified as ozone depleting when at least one ingredient has been classified as ozone depleting and is present at or above the cut-off concentration limit  $[\geq 10 \%]$   $[1 \%]$ .

This option can be justified by the following:

1) only one system in the world is presently applying classification and labelling requirements for ozone depleting mixtures. There is too little experience on application of 0,1 % cut-off concentration. A more cautious solution to take account the interests of the industry would justify higher limit, like [10 %][1 %].

2) there is no scientific justification for application of 0,1 % cut-off concentration.

### **3 Labelling elements for ODS – Pictogram**

#### ***Option 1***

Ozone depleting substances and mixtures are labelled with the existing pictogram (fish and tree) for dangerous for environment as specified by the GHS

This option can be justified by the following:

1) Fish and tree pictogram describes well that the chemical may be dangerous for the environment. This is sufficient information for all target audiences. The pictogram intended for transport will be bigger in size and can mostly be differentiated as necessary for the transport purposes also by other means (the label information is different for transport and supply purposes).

2) Fish and tree pictogram covers sufficiently well also the needs to include possible hazardous effects on human health caused by ODSs. The human effects are only secondary effects. In the case of ODS, the secondary effects are in principle not different from the secondary effects of substances hazardous to the aquatic environment, where secondary effects are not taken into account in the pictogram.

#### ***Option 2***

Ozone depleting substances would warrant a different pictogram (suggestions included in Annexes) from the existing pictogram (fish and tree) as specified by the GHS.

This option can be justified by the following:

1) Fish and tree pictogram should be reserved for chemicals hazardous to the aquatic environment, in particular, because the transport system is traditionally using one pictogram for one hazard only. Use of the same pictogram for other end points would cause confusion within the transport system.

2) Different pictogram would provide better information to all target audiences on the specific hazard of ODS's.

### **4 Labelling elements of ODS – product identifiers – identification of substances**

#### ***Option 1***

Ozone depleting substances would be named in accordance with the normal rules of labelling of the GHS (see para ....)

This option can be justified by the following:

1) Normal rules of the GHS would allow naming of substances by their exact chemical names, technical names or identification codes<sup>1</sup>. This would not prevent using of the identification specified within the Montreal Protocol.

**Option 2**

Ozone depleting substances should be named by using the technical names or designations specified by the Montreal Protocol<sup>1</sup>.

This option can be justified by the following:

1) It would be user friendly to apply the same identification methods for ODSs in both international instruments (GHS and Montreal Protocol).

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<sup>1</sup> example:

customs codes	Montreal Protocol designation	Chemical name/technical name
2903 41	CFC-11	trichlorofluoromethane
2903 42	CFC-12	dichlorodifluoromethane
2903 43	CFC-113	trichlorotrifluoroethanes
2903 44	CFC-114 and CFC-115	dichlorotetrafluoroethanes ja chloropentafluoroethane

ANNEX 2

**Correspondence to the ODS Secretariat (by email)**

**From:** Catherine Masson  
**24/02/2004 09:50**  
**To:** Michael Graber/UNEP/NBO/UNO@UNON, Gilbert Bankobeza/UNEP/NBO/UNO@U  
**cc:** anna-liisa.sundquist@stm.vn.fi  
**Subject:** UN SCE GHS/ODS classification and labelling

Dear Colleagues,

At the 6th session of the UN Sub Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals (SCE GHS) in December 2003, the Sub-Committee decided to pursue work on the classification and labelling of ODS substances. To this aim, a Correspondence Group on ODS was established. The Sub-Committee expressed the wish that this group would closely coordinate with the ODS Secretariat and the Montreal Protocol (see paras 43 to 48 of the report of the 6th session of the SCE GHS at:<http://www.unece.org/trans/main/dgdb/dgsubc4/c4rep.html>).

The Group has yet started its work and plan to submit a progress report to the 7th session of the SCE GHS (Geneva, 14-16 July 2004). As a first step, Mrs Anna-Liisa Sundquist from Finland, who leads the Group, is submitting a background paper to the Group members for comments. She also requested the secretariat to forward this document to the ODS Secretariat with an invitation for comments.

You will find here below the message of Mrs. Sundquist to her group, together with the documents that are circulated for comments. I would be grateful if you could read these documents and provide your comments to the secretariat by 1st April 2004.

We thank you very much for your contribution and stay at your disposal for any further questions.

With my best regards.

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----- Forwarded by Catherine Masson/UNECE/GVA/UNO on 24/02/2004 09:46 -----

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20/02/2004 10:27

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**Subject:** GHS-ODS's

Dear colleagues,

1. GHS and classification and labelling of ozone depleting substances (ODSs). The proposal to classify and label ozone depleting substances (document ST/SG/AC.10/C.4/2003/6 ) was discussed at the December 2003 Session of SCEGHS. The SCEGHS decided to set up a correspondence group to discuss further the proposal. The Secretariat of SCEGHS has compiled a list of members of correspondence group which is attached.

2. Process by the next SCEGHS Session

The correspondence group would work to solve the remaining issues raised in the discussion at the SCEGHS. SCEGHS did not specify time schedule for the work. It was emphasized that SCEGHS would work in close cooperation with the Montreal Protocol and ODS Secretariat.

I am suggesting that the correspondence group would work on ODS on inter-sessional basis and would provide a progress report to the next session of the SCE GHS. - by e-mail, by teleconferences (if necessary) and eventually meet in the context of the next Session of SCEGHS.

I would like to ask the Secretariat of the SCEGHS to forward to the ODS Secretariat the documents discussed in the ODS correspondence group and to provide them a similar opportunity with the members of the correspondence group to comment the documents via e-mail .

3. Issues Paper

On the basis of discussion that took place on the proposal at SCEGHS I am attaching for your consideration and comments an issues paper with different options for solutions concerning classification and labelling of ozone depleting substances. Annexes to Issues Paper are documents odspict1 and odspict2. I would appreciate your comments and suggestions concerning the issues and suggested options by 1 April 2004.

Please, don't hesitate to contact me if you have any questions.

Best regards,

Anna-Liisa Sundquist

### ANNEX 3

#### Comments by the expert from Germany (by email)

*Dear Anna-Liisa,*

*Here it is as the last but one work before Easter Holiday:*

*A translation into English !*

*Best wishes Eva*

ad 1:

I would plead for option 1 with in each case the most recent version of the Montreal Protocol as a Basis.

Argumentation:

In the framework of the MP there are several expert groups dealing with details on the substances and their use. The Technology and Economic Assessment Panel (TEAP) regularly assesses the ozone depleting potential of new substances that have not yet been adopted under Annex A-C and E of the MP, e.g. n-pB. As this is a time-consuming process I can't imagine that in the framework of GHS another committee should draft a decision besides the existing committee of experts under MP. EU Regulation on production and use of ODS refers to the lists of the MP.

ad 2:

Here as well I vote for option 1.

Argumentation:

Intentional addition - even of low percentages of ODS - will result in on-going production of ODS. According to MP and EU-directives production shall phase out. Therefore it would not be adequate to exempt mixtures containing of ODS from labelling. Only impurities from production (should mean <0,1%) should be exempted from labelling.

(Annotation: We are not aware of mixtures with 0,1-1% ODS. So we could agree to 1%cut-off level if it is technically necessary )

ad 3:

To be honest, we see little difference in the pictograms. No vote in this case. Maybe a 3rd colour would rise costs for printing?

ad 4:

We vote for option 1, but addition of the common short names is desirable.

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