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
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COOPERATION WITH OTHER INTERNATIONAL ORGANIZATIONS

Classification and labelling of ozone depleting substances

Transmitted by experts from Austria, Belgium, Denmark, France, Finland,
Germany, Greece, Italy and Spain

Introduction

The Ozone Secretariat in consultation with the Expert Group on Customs Codes of the Montreal Protocol explained in document ST/SG/AC.10/C.4/2003/3 submitted to the Subcommittee of Experts on the Globally Harmonised System (SCEGHS) at its 5th Session on 7-9 July 2003 the issues concerning labelling and identification of ozone depleting substances by customs codes. Labelling and customs codes are considered to be helpful, in particular, on international trade and illegal trade.

Paragraph 17 of the document of the Ozone Secretariat refers to Decision XIV/8 stating:

“Consideration of the use of the Globally Harmonized System for the Classification and Labelling of chemicals that deplete the ozone layer”, the Parties note the value that could be attributed to labelling ODSs under the Globally Harmonized System of Classification and Labelling of chemicals, such as: providing information with respect to identifying the safe handling of these substances in trade, in the workplace, and in consumer products. The Parties requested the Ozone Secretariat to contact the Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemical (SCEGHS), to evaluate the possibilities for and feasibility of including ODSs on its work programme.”

Besides the introduction made by the Ozone Secretariat the experts of Austria, Belgium, Finland, Germany, Greece and Spain would like to emphasise the present requirements of the European Union in classification and labelling of ozone depleting substances, and make a proposal for classification and hazard communication of ozone depleting substances and mixtures within the GHS.
Classification and labelling of ozone depleting substances in the European Union

Ozone depleting substances are considered to be dangerous for the environment in accordance with the Directive 67/548/EEC on the classification, packaging and labelling of dangerous substances.\(^1\)

Section 5.2.2.2 of Annex VI to Directive 67/548/EEC states as follows:

“Substances and preparations shall be classified as dangerous for the environment, and assigned the symbol ‘N’ and the appropriate indication of danger, where applicable, and assigned risk phrases in accordance with the following criteria:

R59 Dangerous for the ozone layer.

Substances which on the basis of the available evidence concerning their properties and their predicted or observed environmental fate and behaviour may present a danger to the structure and/or the functioning of the stratospheric ozone layer. This includes the substances which are listed in Annex I to Council Regulation (EC) No 2037/2000 on substances that deplete the ozone layer (OJ L244, 29.9.2000, p. 1) and its subsequent amendments.

Preparations shall be classified on the basis of conventional method referred to in Article 7 of and Annex III, Parts A and B, to Directive 1999/45/EC.”

Classification and labelling requirements for preparations (mixtures) are specified in Article 7 which refers to Annex III of Directive 1999/45/EC:\(^2\):

Annex III of Directive 1999/45/EC:

... 

II For the non-aquatic environment

The concentration limits fixed in the following tables, expressed as weight/weight percentage or, for gaseous preparations as a volume/volume percentage, determine the classification of the preparation in relation to the individual concentration of the substance(s) present whose classification is shown.

Table 5

<table>
<thead>
<tr>
<th>Classification of the substance</th>
<th>Classification of the preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>N with R59</td>
<td>C ≥ 0.1 %</td>
</tr>
</tbody>
</table>

The substances are, in general, identified as ozone depleting substances on the basis of Montreal Protocol which is implemented in the EU by Regulation 2037/2000. The present EU criteria are not, however, literally limited to the substances included in the Annexes of the Montreal Protocol.

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An example of labelling elements of ozone depleting substances of the EU is attached as Annex 1.

Classification and labelling of ozone depleting substances is considered to be necessary to be able to identify ozone depleting substances for trade and safe handling at the work places and in consumer products.

Continuation of hazard communication in terms of existing labelling elements of the European Union as supplementary information will be extremely difficult as the present warning symbol of the EU for dangerous for the environment resembles too much the newly adopted GHS pictogram but is, however, different in colour (orange) and shape (square).

Proposal

Proposal for classification criteria and hazard communication of ozone depleting substances is attached as Annex 2. Criteria and hazard communication elements for ozone depleting substances is proposed to be introduced in the GHS document as chapter 3.11. It is proposed that the work carried out by the Ozone Secretariat with the Expert Group on Customs Codes of the Montreal Protocol is taken into consideration in hazard communication by identifying the ozone depleting substances as customs codes as suggested by the document ST/SG/AC.10/C.4/2003/3, if seen appropriate and necessary by the SCEGHS.

It is also suggested that appropriate precautionary statements would be developed for ozone depleting substances/mixtures in the context of the work of SCEGHS correspondence group on precautionary statements.
Annex 1

THE EU LABEL ELEMENTS FOR SUBSTANCES AND PREPARATIONS THAT DEPLETE THE OZONE LAYER

- Product identifiers:
  - trade name or designation of the substance/preparation
  - name, address, telephone number of the company/person responsible for placing on the market
  - (ingredients, not required to be declared on the label)

- Warning symbol ‘N’: dangerous for the environment

![Warning Symbol](colours: black pictogram on an orange background)

- Indication of danger: dangerous for the environment
- Risk phrase 59: Dangerous for the ozone layer.
- Safety phrases
  - S59 Refer to manufacturer for information on recovery/recycling (obligatory for substances/preparation dangerous for the ozone layer).
  - S57 Use appropriate containment to avoid environmental contamination (substances and preparations which have been assigned the symbol ‘N’).
  - S61 Avoid release to the environment. Refer to special instructions/safety data sheet (substances and preparations dangerous for the environment and assigned the symbol ‘N’).
Annex 2

PROPOSAL FOR CLASSIFICATION CRITERIA AND HAZARD COMMUNICATION OF ODS

DRAFT CHAPTER 3.11

HAZARDOUS TO THE OZONE LAYER

3.11.1 Definitions and general considerations

3.11.1.1 Definitions

Ozone Depletion Potential (ODP) is an integrative quantity, distinct for each halocarbon source species, that represents the extent of ozone depletion in the stratosphere expected from the halocarbon on a mass-for-mass basis relative to CFC-11. The formal definition of ODP is the ratio of integrated perturbations to total ozone, for a differential mass emission of a particular compound relative to an equal emission of CFC-11.

Ozone depleting substance is a substance with Ozone Depleting Potential affecting stratospheric ozone layer, contain chlorine and/or bromine, is volatile and has an atmospheric lifetime extending from several days up to hundreds of years.

Montreal Protocol is the Montreal Protocol on substances that deplete the ozone layer as adjusted and amended by the meetings of the Parties in 1990, 1992, 1997 and 1999. The Montreal Protocol restricts the production and consumption of ozone depleting substances; phase out dates have been agreed to all controlled substances both in developed and developing countries.

3.11.2 Classification criteria for substances

Substance is classified as ozone depleting substance if it is listed in Annex A, B, C or E of the Montreal Protocol. Only one category is specified for classification.

3.11.3 Classification criteria for mixtures

3.11.3.1 Classification of mixtures when data are available for the complete mixture

No test methods exist for assessment of ozone depleting potential of mixtures.

3.11.3.2 Classification of mixtures when data are not available for the complete mixture: Bridging principles

Bridging principles cannot be applied to classification of mixtures as depleting the ozone layer.

3.11.3.3 Classification of mixtures when data are available for all components or only some components of the mixture

3.11.3.3.1 The mixture is classified as ozone depleting when at least one ingredient has been classified as ozone depleting according to the Montreal Protocol and is present at or above the cut-off value/concentration limit mentioned in Table 3.11.3.
Table 3.11.3 Cut-off values/concentration limits of ingredients of a mixture classified as ozone depleting that would trigger classification of the mixture

<table>
<thead>
<tr>
<th>Ingredient classified as</th>
<th>Cut-off/concentration limit triggering classification of a mixture as ozone depleting mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ozone depleting substance of Annex A, B, C or E of Montreal Protocol</td>
<td>≥ 0.1 %</td>
</tr>
</tbody>
</table>

3.11.4 Hazard communication

3.11.4.1 General and specific considerations concerning labelling requirements are provided in *Hazard Communication: Labelling* (Chapter 1.4). Annex 2 contains summary tables about classification and labelling. Annex 3 contains examples of precautionary statements and pictograms which can be used where allowed by the competent authority.

Table 3.11.4 Label elements for ozone depleting substances

<table>
<thead>
<tr>
<th>Ozone depleting substance/mixture</th>
<th>Symbol</th>
<th>Signal word</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fish and tree</td>
<td>Warning</td>
<td>Depletes the ozone layer.</td>
</tr>
</tbody>
</table>
3.11.5  Decision logic for ozone depleting substances and mixtures

The decision logic which follows is not part of the harmonized classification system but is provided here as additional guidance. It is strongly recommended that the person responsible for classification study the criteria before and during use of the decision logic.

**Decision logic 3.11.1 for substances**

- **Substance:** Is the substance mentioned in Annex A, B, C or E of the Montreal Protocol?
  - No: Classification not possible
  - Yes: **Mixture:** Does the mixture contain ingredients classified as ozone depleting substances according to Annex A, B, C or E of the Montreal Protocol?
    - No: Classification not possible
    - Yes: See Decision Logic 3.11.2

- **Ozone depleting Warning**
Decision logic 3.11.2 for mixtures

Does the mixture contain one or more ingredients classified as ozone depleting substance at a concentration of:

- \( \geq 0.1\% \)

Yes

Ozone depleting

Warning

No

Not classified

**NOTE:** Annex 1 (Allocation of Label Elements) and Annex 2 (Classification and Labelling Summary tables) should further be completed accordingly.