



**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 Transport of Dangerous Goods****Fourtieth session**

Geneva, 28 November – 7 December 2011

Item 2 (c) of the provisional agenda

Listing, classification and packing: miscellaneous**Classification of mixtures containing an environmentally
hazardous substance component****Transmitted by the International Council of Chemical Associations
(ICCA)¹****Background**

1. With the change of the wording in Chapter 2.0.2.5 in the sixteenth revised edition of the United Nations Recommendations on the Transport of Dangerous Goods, Model Regulations, a mixture or solution composed of a single predominant substance identified by name in the Dangerous Goods List and one or more substances not subject to the Regulations and/or traces of one or more substances identified by name in the Dangerous Goods List, shall be assigned the UN number and proper shipping name of the predominant substance named in the Dangerous Goods List.
2. Taking into account this new rule the question has arisen within industry on how to deal with mixtures or solutions containing environmentally hazardous substances. Indeed environmentally hazardous substances are a specific case as they need to be named on the transport document according to the IMDG-Code (i.e. “Marine Pollutant”) and for ADR/RID/ADN (i.e. “environmentally hazardous”). In order to avoid substances being assigned to different UN numbers for different transport modes, ICCA is looking for clarification from the Sub-Committee.
3. In order to illustrate the issue the following mixture/solution is taken as an example:

¹ In accordance with the programme of work of the Sub-Committee for 2011-2012 approved by the Committee at its fifth session (refer to ST/SG/AC.10/C.3/76, para. 116 and ST/SG/AC.10/38, para. 16).

- A predominant component listed specifically by name in the Dangerous Goods List, e.g. 70 % Acetone
- An environmental hazardous component, e.g. 25 % Triphenyl phosphate)
- One or more non dangerous components, e.g. 5 % water.

4. Taking into account 2.0.2.5 the classification of this mixture/solution can be made in two alternative ways:

Alternative I: classification under the most appropriate collective entry

- The environmentally hazardous component is a second dangerous substance besides a predominant component subject to the UN Model Regulations and therefore the requirement, that the mixture/solution includes only one dangerous component is not fulfilled.
- The second component does not meet the description of “trace” as it causes the solution/mixture to be classified as environmentally hazardous.
- Sea transport requires different emergency actions for environmentally hazardous substances regarding stowage position, priority for salvage actions and notification to authorities in case of an incident.

The solution/mixture can therefore not be assigned to the specific entry of the predominant component and has to be classified under the most appropriate collective entry:

UN 1993 FLAMMABLE LIQUID, N.O.S. (Acetone, Triphenyl phosphate), 3, II.

Alternative II: classification under the entry of the predominant substance

- None of the conditions of 2.0.2.5 (a) to (d) for not assigning the specific entry of the predominant substance are met.

The solution/mixture has therefore to be assigned to the specific entry of the predominant component:

UN 1090 ACETONE SOLUTION, 3, II

Proposal

5. In case Alternative I is decided as appropriate, the following amendments are proposed:

- In 2.0.2.5 (c) after “subsidiary risk,” add “the classification as environmentally hazardous,”
- Create a new subsection

“3.1.2.9 Environmentally hazardous substances

3.1.2.9.1 For substances classified as environmentally hazardous, belonging to a generic or n.o.s. entry to which SP 274 is not assigned, the proper shipping name **may** be supplemented with the recognized chemical name of the environmentally hazardous component.

3.1.2.9.2 Examples illustrating the selection of the Proper Shipping Name supplemented with the recognized technical name of goods for such entries are indicated below:

UN 1993 FLAMMABLE LIQUID, N.O.S. (propyl acetate, di-n-butyltin-di-2-ethylhexanoate)

UN 1263 PAINT (triethylbenzene)”

6. Whereas the proposed amendment to 2.0.2.5 (c) clarifies the classification process according to Alternative I, it causes for substances classified consequently under a most appropriate generic entry which is not subject to SP 274, a difference between sea transport and other modes. In fact the environmentally hazardous component has to be indicated as chemical name according to IMDG Code/Marpol (see MARPOL Annex III Regulation 4.1), which is not the case for the other modes. This difference is not limited to substances classified in accordance with 2.0.2.5 but also to every other environmentally hazardous substance classified under a generic or n.o.s. entry to which SP 274 is not assigned. Therefore the new subsection 3.1.2.9 is proposed in order to ensure a harmonized dangerous goods description by providing the indication of the chemical name as an option for all modes.

7. In case Alternative II is decided as appropriate, the following amendments are proposed:

- In 2.0.2.5 the first sentence should be amended to read:

2.0.2.5 A mixture or solution composed of a single predominant substance identified by name in the dangerous goods list and

- One or more substances not subject to these Regulations, and/or
- One or more substances which are dangerous to the aquatic environment that do not meet the classification criteria of any other class or another substance within Class 9, and/or
- Traces of one or more substances subject to these Regulation in concentrations below the classification thresholds

shall be assigned the UN number and proper shipping name of the predominant substances in the Dangerous Goods List unless: ...

- Create a new subsection

“3.1.2.9 Environmentally hazardous substances

3.1.2.9.1 For entries to which SP 274 is not assigned, including those individually identified by name in the Dangerous Goods List, the proper shipping name **may** be supplemented with the recognized chemical name of the environmentally hazardous substances.

3.1.2.9.2 Examples illustrating the selection of the Proper Shipping Name supplemented with the recognized technical name of goods for such entries are indicated below:

UN 1090 ACETONE SOLUTION (triphenyl phosphate), 3, II

UN 1993 FLAMMABLE LIQUID, N.O.S. (propyl acetate, di-n-butyltin-di-2-ethylhexanoate), class 3, PG III

UN 1263 PAINT (triethylbenzene), class 3, PG III”

8. The same explanation given in paragraph 6 above, applies to the amendments proposed in paragraph 7, with the difference that new subsection 3.1.2.9 for Alternative II also permits to supplement the hazard inducing substance for specific entries.

9. The Subcommittee is asked for a clarification in order to enable harmonized classifications for all transport modes, even if mainly the provisions of the IMDG Code and ADR/RID/ADN are affected.