



**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****Thirtieth session**

Geneva, 9 – 11 December 2015

Item 3 (c) of the provisional agenda

Classification criteria and related hazard communication:**Aspiration hazard, viscosity criterion for classification of mixtures****Classification criteria for aspiration hazards****Transmitted by the International Maritime Organization (IMO)¹****Background**

1. The “Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP)” is an advisory body composed of specialized experts nominated by the sponsoring agencies (IMO, FAO, UNESCO-IOC, WMO, IAEA, United Nations, UNEP, UNIDO, UNDP) that provides scientific advice regarding the prevention, reduction and control of the degradation of the marine environment to the sponsoring agencies including the United Nations itself. The International Maritime Organization serves as the secretariat of this United Nations advisory body.
2. The GESAMP/EHS Working Group is the GESAMP body that has been tasked with evaluating liquid chemical substances carried in bulk and identifying the human health and environmental hazards associated with these substances, with the results of its work feeding directly into the international regulatory regime for the transport of liquid chemicals in bulk established by the International Maritime Organization (IMO).
3. In late 2014, GESAMP published an update of its Reports and Studies No.64² (2nd Ed) entitled the *Revised GESAMP Hazard Evaluation Procedure for Chemical Substances*

¹ In accordance with the programme of work of the Sub-Committee for 2015–2016 approved by the Committee at its seventh session (see ST/SG/AC.10/C.3/92, paragraph 95 and ST/SG/AC.10/42, para. 15)

carried by Ships, 2nd Edition. This document, which is generally in line with GHS principles, establishes the specific criteria for evaluating both the human health and environmental hazards associated with chemical substances carried in chemical tankers that may enter the marine environment through operational discharge, accidental spillage, or loss overboard.

4. The information is collated in what is known as the “GESAMP Hazard Profile”, an easily readable fingerprint of the hazard characteristics of each substance. The full listing of GESAMP Hazard Profiles can be found in the *GESAMP Composite List*³, which is updated and published annually by the IMO.

Aspiration hazard criteria

5. The GESAMP hazard classification system includes a hazard rating for “aspiration” that is fully in line with the criteria set out in the GHS for aspiration hazard, category 1².

6. In assessing several products at its fifty-first session in April 2015, the GESAMP/EHS Working Group experienced difficulties in interpreting the GHS criteria for aspiration hazard category 1, given that the criteria based on kinematic viscosity appeared to only apply to hydrocarbons (table 3.10.1 in GHS), whereas the examples given in the footnote and the specific considerations set out in paragraph 3.10.1.6.1 refer also to modified hydrocarbon chemicals (e.g. chlorinated hydrocarbons) that are known to pose an aspiration hazard.

7. The GESAMP/EHS Working Group, in evaluating a Cresol/Phenol/Xylenol mixture and Cyclohexane-1,2-dicarboxylic acid, diisononyl ester, noted that these products would meet the aspiration hazard criteria consistent with GHS aspiration hazard category 1 (GHS paragraph 3.10.2), based on their kinematic viscosities. However, since such classifications would be based on physico-chemical data and not on human evidence, it would only be applicable to hydrocarbons. The group concluded that since these products were not hydrocarbons in the strict sense (i.e. containing only C and H atoms in the molecular structure), the classification for aspiration hazard (the assignment of an A rating) would not apply.

8. Given the identified discrepancy, the GESAMP/EHS Working Group agreed to request clarification from the Sub-Committee on the applicability of the GHS criteria to aspiration hazard category 1, based on kinematic viscosity data for chemical groups other than pure hydrocarbons.

9. It is noted that the OECD Task Force on Harmonisation of Classification and Labelling, when developing the GHS section on the aspiration hazard, based its work on the OECD document ENV/JM/HCL(2001)2/Rev1 that documents the different approaches used in Canada, the European Union and the United States by the Consumer Product Safety Commission (CPSC), the Environmental Protection Agency (EPA) and the Occupational Safety and Health Organisation (OSHA). The different approaches to “hydrocarbons” under the various classification schemes set out in this document provide information on the origin of the ambiguous definition of hydrocarbons and the examples given.

² http://www.gesamp.org/publications/publicationdisplaypages/therevised-gesamp-hazard-evaluation-procedure_-2nd-edition

³ <http://www.imo.org/en/OurWork/Environment/PollutionPrevention/ChemicalPollution/Pages/ChemicalsReportingForms.aspx>

10. It is further recalled that a proposal was made to the 28th session of the GHS Sub-Committee for the revision to chapter 3.10 of the GHS to include additional viscosity criteria for mixtures (e.g. paints and printing inks).

Action requested

11. Based on the above considerations, the Sub-Committee is invited to:
- (a) provide clarification on the applicability of the GHS criteria to aspiration hazard category 1, based on kinematic viscosity data for chemical groups other than pure hydrocarbons; and, correspondingly
 - (b) consider whether the current text in the GHS should be revised.
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