

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

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Item 10 (h) of the provisional agenda

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

Discussion on SDS and Transport

Transmitted by the Council on Safe Transportation of Hazardous Articles (COSTHA).

Introduction

1. As the provisions of the GHS are adopted and incorporated by competent authorities globally, significant difficulties have been encountered. Concerns over GHS labels and pictograms on transport packaging has been noted by DGAC and is being discussed during this session. However, labels are not the only form of hazard communication that presents challenges.

2. Safety Data Sheets (SDS) are not new and have been used extensively in storage and supply segments to identify safety concerns, health risks, and detail protective equipment needed when chemicals are stored or used by workers or the general public. GHS further developed the concept of SDS and presented a 16-section format that covers hazard identification, first aid measures, fire-fighting methods, accidental release measures, toxicological information, and disposal consideration. Of particular interest to the TDG Subcommittee is the inclusion of Section 14 which may be used to detail transport information. However, information provided on a SDS in Section 14 can be misleading, incomplete, or depending on the training and experience of the person completing the SDS, incorrect.

3. The scope of GHS as defined in 1.1.2.1 is to provide: a) harmonized criteria for classifying substances and mixtures according to their health, environmental and physical hazards; and b) harmonized hazard communication elements, including requirements for labelling and safety data sheets. This is very beneficial for workers, consumers, and people exposed to chemical and mixtures. However, GHS was not intended to address all products and materials; not even all materials regulated as dangerous goods in transport. GHS 1.3.2.1.1 clearly limits the scope of GHS:

1.3.2.1.1 The GHS applies to pure substances and their dilute solutions and to mixtures. "Articles" as defined in the Hazard Communication Standard (29 CFR 1910.1200) of the Occupational Safety and Health Administration of the United States of America, or by similar definition, are outside the scope of the system.

4. The definition of an article as referenced above in 29 CFR 1910.1200 of the U.S. Occupational Safety and Health Administration is provided below for reference:

Article means a manufactured item other than a fluid or particle:

- (i) Which is formed to a specific shape or design during manufacture;
- (ii) Which has end use functions dependent in whole or in part upon its shape or design during end use; and
- (iii) Which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical..., and does not pose a physical hazard or health risk to employees.

5. Vehicles, fire extinguishers, neutron radiation detectors, shocks or accumulators (articles pressurized, pneumatic) and batteries are all examples of articles which may contain chemicals as pure substances or mixtures but are not subject to the scope of GHS as defined by the UN. Application of all aspects of GHS to these articles inevitably lead to confusion and misleading or incorrect information.

6. Consider a fire extinguisher. The device is typically constructed of a cylinder pressurized with a gas which is then used to expel an extinguishing agent. The extinguishing agent is the chemical of concern for GHS and therefore GHS labels and an SDS would be prepared. For transport, the extinguishing agent may not be regulated for transport (might not meet the defining criteria for any of the nine (9) hazard classes). But the pressure in the cylinder triggers regulation as UN1044. Thus a SDS provided for a fire extinguisher may indicate "Not Regulated" in Section 14 for transport but this reflects the transport of the chemical (which is subject to GHS), not the article itself (which would be regulated by transport).

7. COSTHA members are experiencing an ever increasing amount of requests for SDS' for articles. The growing awareness of lithium batteries and the need to relay proper testing certification (successfully passing Section 38.3 tests as outlined in the UN Manual of Tests and Criteria) led many companies to request SDS from battery manufacturers. To appease the requests, companies have prepared documents which mimic SDS but because batteries are articles and therefore not subject to GHS, these documents are awkward and often confusing. However when one SDS is prepared for batteries, the expectation is that all batteries should have SDS'. Thus the misconception of the applicability for SDS is furthered.

8. COSTHA was recently made aware of a requirement to provide SDS' for Safety Devices and Vehicles, flammable liquid powered prior to import into a particular region of the world. Given that neither of these products are pure chemicals or substances but may contain one or more of such substances, it is not clear how a SDS could be prepared for either of these products. Should they include only the description of the material contained within the device (for example, the explosive initiate in a safety device or the gasoline in a vehicle)? Members have experienced rejected shipments because the SDS for the pure substance (Class 1.4 or Class 3) does not match the classification of the article (Class 9).

9. COSTHA requests feedback from the Subcommittee on whether articles, such as vehicles, safety devices, fire extinguishers and articles, pressurized pneumatic would be subject to GHS and therefore be subject to SDS requirements. We understand this topic would be better discussed within the GHS Subcommittee. However, COSTHA would like to hear the opinions of the TDG Subcommittee on the topic before preparing a paper for the GHS.
