
**Committee of Experts on the Transport of Dangerous Goods
and on the Globally Harmonized System of Classification
and Labelling of Chemicals**

9 December 2019

**Sub-Committee of Experts on the Transport of Dangerous Goods
Fifty-sixth session**

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Item 3 of the provisional agenda

Listing, classification and packing

**Follow-up to ST/SG/AC.10/C.3/2019/61 from Council on Safe
Transportation of Hazardous Articles (COSTHA) and
informal document INF.28 from the expert from France**

**Transmitted by the expert from France and the Council on Safe
Transportation of Hazardous Articles (COSTHA)**

1. Based on discussion of ST/SG/AC.10/C.3/2019/61 (COSTHA) and informal document INF.28 (France) (56th session), it was agreed to request that the Explosives Working Group be asked to respond to a number of questions related to how to address the assignment of certain fire suppression dispersing devices to Class 9. An informal discussion was held by interested delegates to suggest an approach to present to the Explosives Working Group for technical considerations that might assist the Sub-Committee in determining a specific path forward.

2. The informal discussion was based on the documents from COSTHA and France stating that fire suppression dispersing devices are articles that are designed to disperse a fire extinguishing medium which may be a solid or liquid fire suppressing material. The fire suppression dispersing devices are not manufactured with a view to producing a practical or pyrotechnic effect consistent with the exclusion criteria in 16.6.1.4.7 of the Manual of Tests and Criteria. They are articles that do not cause any effect external to the device by projection, fire, smoke, heat or loud noise when packaged for transport. They are designed or offered for transport in such a way that they will not inadvertently or accidentally initiate. It was also stated the articles provide a safety function.

3. The proposal from the expert from France offered two options one to recognize fire suppression dispersing devices as "Safety Devices, UN 3268 or to create a specific entry with appropriate requirements in a special provision similar to SP 280 but tailored to the unique characteristics of these articles. The Explosives Working Group is requested to consider the following:

- (a) Is there any reason that fire suppression dispersing devices should not be authorized to be assigned to Class 9? Taking into account the current classification scheme, can an article containing an explosive material be tested out of Class 1 and into Class 9? Can testing demonstrate that articles(s) that do not meet the exclusion for Class 1 criteria are less hazardous in transport than 1.4S, thus being appropriately considered for classification as Class 9? What additional testing could be considered to appropriately identify the inherent hazard of the article?
- (b) Recognizing the current requirement in SP 280 where articles can be assigned to Class 9 based on meeting Test Series 6c, was based on testing experience with items that were similar to airbags, inflators, and seat belt pretensioners. That experience considered recognized design perimeters for these articles and a stream-lined testing regime that had proven acceptable over many years for these known articles, can other articles that are not strictly used

in vehicles also be addressed? The intention is not to impact existing provisions for Safety Devices (UN3268 or UN0503) based on years of positive safety experience but to determine if the UN 3268 entry be limited to automotive applications only. Fire suppression dispersing devices generally have vehicle applications but can be used for other purposes (e.g. for suppressing fires in wind turbines or Energy Storage Systems).

- (c) Some fire suppression devices intentionally expel fine particulate to suppress fire. The expelled particles are not combustible smoke but a condensed aerosolized suppressant agent. Is there any reason that these should not be authorized to be reassigned to Class 9 considering the criteria in 2.1.3.6.4(e) that states that no production of dust in such quantities that the visibility in a one cubic metre chamber equipped with appropriately sized blow out panels is reduced more than 50% as measure by a calibrated light meter? The fine particulate cloud generated is intentional and suppresses fires.

4. When considering the option of creating a specific entry for fire suppression devices some experts indicated support for this approach because the proper shipping name would more efficiently describe the articles as opposed to referring to them as safety devices. What if any criteria would be appropriate to apply to fire suppression dispersing devices? Should any additional testing or performance requirements be required (e.g. demonstrating that when an article is initiated in a package the thermal effects are contained and would not present a hazard to adjacent packages)? If the articles are not capable of being initiated in transport or are designed to prevent in advertent activation would this make Class 9 assignment more acceptable?

5. Recognizing there are additional articles that utilize similar technology as safety devices and fire extinguishers (See ST/SG/AC.10/C.3/2018/13 and ST/SG/AC.10/C.3/2018/75) :

- (a) what additional tests may be appropriate to consider such articles for assignment in Class 9?
- (b) Would the same tests identified above be appropriate for articles that are not intended as airbags, seat belt pretensioners or fire extinguishers?
- (c) Are there additional parameters that should be applied when considering assignment to current or future entries in the DG List?
