

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 3 (a) of the provisional agenda

Proposals of amendments to the list of dangerous goods of Chapter 3.2

Proposal to amend the description, the proper shipping name, and the special provisions for UN 0503 (Division 1.4G) and UN 3268 (Class 9) by an entry on "Safety Devices for Vehicles"

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

Summary

Executive summary: Amendment of UN 0503 and UN 3268
"SAFETY DEVICES"

Action to be taken: UN Model Regulations on the transport of dangerous goods, *seventeenth revised edition, Chapter 3.2, Dangerous goods list UN 0503 and UN 3268 in accordance with Appendix B Glossary of terms AIR BAG INFLATORS or AIR BAG MODULES or SEAT-BELT PRETENSIONERS* and in accordance with Chapter 3.3 *Special provisions applicable to certain articles or substances Nos 235, 280 and 289*

Related documents: [ST/SG/AC.10/C.3/2012/35](#)

After submitting our formal paper, it was brought to our attention that these devices may be used for applications other than vehicles, such as aircraft. We are drafting this informal paper to address this concern.

Introduction

1. The development of ~~life-saving appliances in the automotive industry~~ **safety products (air bag inflators, air bag modules, and seat-belt pretensioners)** has made considerable progress since the introduction of UN 3268. The present range of ~~appliances~~ **these products** goes well beyond those listed in UN 3268 and UN 0503. For example, **these new products** ~~they~~ include a number of elements that are actuated by the electric signal of the crash sensor.

Examples include:

- Pyromechanical safety elements which serve to interrupt electric connections. In case of emergency, the main power cable in the vehicle is disconnected from the battery to prevent short circuit and to minimize the risk of fire in the vehicle;
- Pyromechanical actuators which are used for active headrests or for pedestrian protection to release special hinges of the engine hood.

Currently these new pyromechanical devices cannot be assigned to UN 3268 even if they meet all Class 9/UN3268 safety requirements when offered for transport.

The following proposal initially aims at amending the entry for UN3268 – first to expand Class 9/UN3268 to include the new pyromechanical devices, and second, to modify the proper shipping name for UN3268 to a single entry – Safety Devices.

2. ~~These safety device designs cannot be assigned to UN 3268 although they are complying with all Class 9 safety requirements when offered for transport.~~
3. ~~The following proposal initially aims at amending the entry for UN 3268. This will automatically result in corresponding amendments in the entry for UN 0503.~~

Proposals

4. ~~Appendix B GLOSSARY OF TERMS: the first term and its description (AIR BAG INFLATORS, ...) should be amended to read as follows:~~

SAFETY DEVICES FOR VEHICLES

Articles which contain pyrotechnic substances or dangerous goods of other classes and are used ~~in vehicles, vessels or aircraft to enhance safety. Examples are; air bag inflators, air bag modules, seat-belt pretensioners or pyromechanical devices. These pyromechanical as life saving vehicle airbags or seat belts or safety devices. Vehicle safety devices are assembled components for tasks such as but not limited to separation, locking, or release-and-drive or occupant restraint systems."~~

5. ~~Chapter 3.2 Proper shipping names of UN 0503 and UN 3268 should be amended to read as follows:~~

REMOVE "AIR BAG INFLATORS, AIR BAG MODULES, SEAT-BELT PRETENSIONERS" ADD "SAFETY DEVICES FOR VEHICLES"

6. **Special Provision 235, UN 0503**, should be amended to read as follows:

"This entry applies to articles which contain Class 1 explosive substances and which may also contain dangerous goods of other classes. These articles are used ~~to enhance safety in vehicles, vessels or aircraft – e.g. as safety devices for vehicles, e.g. life saving vehicle air bag inflators, or air bag modules, or seat-belt pretensioners or pyromechanical switches or pyromechanical actuators."~~ **devices.**

7. **Special Provision 280, UN 3268**, should be amended to read as follows:

"This entry applies to safety devices for vehicles, ~~vessels or aircraft – e.g. articles which are used as life saving vehicle air bag inflators, air bag modules, or seat-belt pretensioners or pyromechanical devices switches or pyromechanical actuators~~ and which contain dangerous goods of Class 1 or dangerous goods of other classes and when transported as component parts and if these articles as presented for transport have been tested in accordance with Test Series 6(c) of Part I of the *Manual of Tests and Criteria*, with no explosion of the device, no fragmentation of device casing or pressure vessel, and no projection hazard nor

thermal effect which would significantly hinder fire-fighting or emergency response efforts in the immediate vicinity."

8. **Special Provision 289, UN 0503 and UN 3268**, should be amended to read as follows:

"Safety devices ~~for vehicles~~ installed in vehicles, **vessels or aircraft** or in completed components such as steering columns, door panels, seats etc. are not subject to these Regulations."

Justification

1. Under Special Provision 280, **all products to be classed as Safety Devices/UN3268 would have been** ~~the above safety devices shall be~~ tested according to the UN 6(c) Test Series and **could only** ~~may not~~ be classified under UN 3268 **if they pass** ~~unless they have passed~~ the test satisfactorily – **performance based testing showing that the devices do not perform as Class 1 devices. Adding pyromechanical devices to the already authorized air bag inflators, air bag modules and seat-belt pretensioners offers** ~~When this is the case, there will be no safety~~ **increased** risk. The most solid proof for the validity of this view comes from the positive experience gained in the world-wide transport of articles already classified under UN 3268 **which generally contain significantly higher pyrotechnic charges than the smaller pyromechanical devices.**

2. The above proposal is urgently needed for the international **safety device industry** ~~automotive industry~~ so as to enable the industry to secure the global logistic network for supply and production and, in particular, for the supply of individual service outlets. This process has become less and less possible ~~in case of the classification under one of the UN numbers of Class 1.~~
