

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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LISTING, CLASSIFICATION AND PACKING

Packing Instruction P200

Transmitted by the European Industrial Gases Association

Background

1. The expert from Germany has transmitted document ST/SG/AC.10/C.3/2008/16 with a proposal to modify the requirements for the caps or plugs fitted to valves for toxic substances with an LC₅₀ less than or equal to 200 ml/m³ (ppm) and for valves for pyrophoric gases or flammable mixtures of gases containing more than 1 % of pyrophoric compounds.
2. The requirement to fit a cap or plug to the required products have been in place for a number of years and have been proven to function without problems. This is a workable practice that has added to the overall integrity of such packages.
3. Whilst supporting the requirements for a more rigorous definition of a gas tight closure, EIGA considers that by specifying a specific standard for the performance of the gas tight cap this will add an unnecessary complication which will not add to the overall integrity of the package.
4. The cap or plug is intended as a secondary closure to a valve that has already undergone testing to meet the performance requirements as specified in ISO 10297. Experience has shown that valves that meet this or similar standards have a very high degree of integrity. Fitting a plug or cap to such products is a sensible, added, precaution

Proposals

5. Rather than have the plug or cap specifically meet the performance requirements of the valve as specified in ISO 10297, EIGA proposes to have the cap or plug conform to the same dimensions as the user connector that the valve outlet is intended for, it shall ensure that the same degree of integrity is assured for the cap or plug as when the valve is connected to a user's process. It should be noted that there are no specific requirements in ISO 10297 for a

performance standard for the valve outlet to the user connector. As well, there are questions about how this would be applied in the case of caps or plugs.

The EIGA proposal would both clarify and strengthen the requirements without adding unnecessary complexity. The connection between a gas cylinder valve outlet and the use connector is a well proven connection, and as such conformance of a plug or cap to the same overall requirements will ensure the same level of integrity in transport as in use.

6. It is proposed to amend the proposal from the expert of Germany as follows for special packing provisions “k” and “q” in paragraph (4) of P200 as below. (Amended text is underlined):

“k Valve outlets shall be fitted with gas-tight caps or plugs. "Gas tight caps or plugs shall conform to the same thread dimensions as the user connector that the valve outlet is intended for, but shall not be able to pass gas and thereby ensure a gas tight seal"

Each cylinder within a bundle shall be fitted with an individual valve that shall be closed during transport. After filling, the manifold shall be evacuated, purged and plugged.

..... (remainder unchanged)”.

Because the plugs or caps are fitted to the valve outlet an amendment should be introduced in special packing provision “q” at the same time.

“q Valve outlets of pressure receptacles for pyrophoric gases or flammable mixtures of gases containing more than 1% of pyrophoric compounds shall be fitted with gas-tight plugs or caps. When these pressure receptacles are manifolded in a bundle, each of the pressure receptacles shall be fitted with an individual valve that shall be closed during transport, and the outlet of the manifold outlet valve shall be fitted with a gas-tight plug or cap. "Gas tight caps or plugs shall conform to the same thread dimensions as the user connector that the valve outlet is intended for, but not be able to pass gas and thereby ensure a gas tight seal"
