

## 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

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### Implementation issues

## Potential issues associated with the adoption of “Corrosive to metals” for the supply/use sector

Transmitted by the International Association for Soaps, Detergents and Maintenance Products (AISE)

### A. Background

1. AISE wishes to draw the Sub-Committee’s attention to a potential implementation issue which may arise if the physical hazard “corrosive to metals” is adopted for the supply and use sector.
2. The physical hazard “corrosive to metals” originated in the UN Model Regulations for the transport of dangerous goods and was subsequently adopted by the UN GHS.
3. It is possible that a competent authority may adopt this hazard for both transport and the supply/use sector. As a result, any product that is classified in **hazard class 8** for transport (corrosive to metals) will also be classified for supply and will require the corrosive pictogram on the supply label along with “WARNING - may be corrosive to metals”. It should be noted that the transport legislation includes limited quantities provisions for Class 8 substances/mixtures. This would mean that the transport corrosive label would not appear on the outer packaging of substances or mixtures only classified as corrosive to metals where limited quantities provisions apply.
4. Classification as “corrosive to metals” is based on the results of testing - test method: corrosion rate on either steel or aluminium surfaces exceeding 6.25 mm per year at a test temperature of 55 °C when tested on both materials.
5. The “corrosive to metals” test method and classification criteria were developed specifically for the transport situation (in particular for air transport) and now includes consideration of localised corrosion (“pitting”) which makes the test method more stringent.
6. The classification “corrosive to metals” for supply is considered not to be relevant for consumers in that:
  - The test method does not reflect typical in-use conditions;
  - Some mixtures are actually developed for use on metals, e.g. stainless steel;
  - Product compatibility with materials being cleaned is an essential requirement in the development process – products are designed not to damage household metals.

## B. Issues

7. Some substances and mixtures, for example detergent and cleaning formulations, will be classified as “corrosive to metals” for supply while not being classified as “corrosive to skin/eyes”. As shown in the example label below, this will mean that substances or mixtures either classified as irritant to skin and/or eyes or not classified will be labelled with a corrosive pictogram derived from the corrosive to metals classification, as there is no direct correlation between corrosion to metals and corrosion to skin and/or eyes.

Sanitary Cleaner: Classified Corrosive to metals, Skin Irritant Cat. 2 and  
Eye Irritant Cat. 2A



8. Examples of product types potentially affected in our sector include laundry additive, machine dishwashing detergent, hard surface cleaner and sanitary cleaner formulations based on ingredients such as acids and bases (i.e. low/high pH), benzalkonium chloride and sodium hypochlorite. According to transport legislation, the products mentioned above, typically sold in relatively small containers, do not require the corrosive label as limited quantities exemptions apply.

9. The same hazard pictogram is used for physical-chemical corrosion and human health local irreversible effects.

10. This could be very misleading for the consumer in that it makes it difficult to differentiate (and therefore know when to take extra care during use) between products that are truly corrosive to skin and those only corrosive to metals. Further confusion stems from the fact that precautionary measures for corrosion to metals are very different from precautionary measures for potential skin and eye effects.

11. The metal corrosion test method does not reflect typical consumer or professional use conditions as it was designed to cover transport conditions, in particular air transport.

## C. Way forward

12. The Sub-Committee may wish to consider the following proposed solution to address the above issues:

Introduce a Competent Authority option in [Chapter 2.16] [Chapter 1.4.10.5.5]:

*“Where a substance or mixture is classified as corrosive to metals but not corrosive to skin and/or eyes, a competent authority may choose to allow the label elements (hazard pictogram, hazard statement and precautionary statements) linked to corrosive to metals to be omitted from the supply/use label where justified according to the intended use and the contents of the immediate container do not exceed 5 litres/5 kg.*

*In this case, the hazard information for the classification corrosive to metals is included in the SDS.”*

### **Justification**

- For consistency with limited quantity provisions in the transport legislation;
  - To avoid confusion for end-users (corrosive pictogram from “corrosive to metals” on products only irritant or not classified for skin/eye effects)
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