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**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****Sixty-first session**

Geneva, 28 November-6 December 2022

Item 3 of the provisional agenda

**Listing, classification and packing****Transport provisions for small quantities of environmentally  
hazardous paints and printing inks (and related materials)****Transmitted by the World Coatings Council (WCC)\*****Background**

1. The paint and printing ink industry continues to seek a successful solution to the challenges relating to the transportation of small quantities (between 5 and 30 liters) of environmentally-hazardous mixtures. The current UN classification framework for such products has been questioned repeatedly over the past twenty years. In 2004, the Netherlands submitted a proposal to create a new chapter 2.10 for these types of products (ST/SG/AC.10/C.3/2004/68). In 2012, the International Paint and Printing Ink Council (IPPIC) presented a proposal for new UN numbers for specific class 9 substances (ST/SG/AC.10/C.3/2012/89). In 2018, the Dangerous Goods Advisory Council (DGAC) and the Council on the Safe Transport of Hazardous Articles (COSTHA) submitted a proposal raising similar concerns (ST/SG/AC.10/C.3/2018/47), and at the last session of this Sub-Committee, the WCC presented a working document that outlined industry's current challenges and offered proposals that could alleviate this global transportation issue (ST/SG/AC.10/C.3/2022/22). Interrelated, there are ongoing discussions at the national authority level with the broad chemical industry on the relationship between substance classification legislation and transport requirements.

2. The current United Nations framework provides limited options with regard to transport classification of dangerous goods meeting the class 9 environmentally-hazardous criteria. UN 3082 covers a very broad range of product types, without the opportunity to differentiate between substances (with a potentially high impact on the environment in the case of spillage) and mixtures (where the impact is significantly lower). Class 9 is a single class covering all environmentally-hazardous materials without sub-categorization available to indicate levels of risk in case of an incident. The existing special provision in place (SP 375) is also very broad in nature, applying to all UN 3077 and UN 3082 classified goods. The specific packaging provision PP1 in packing instruction P001 applies to paints, printing inks, adhesives and resin solutions and exempts smaller quantities (< 5 litres) from the

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\* A/75/6 (Sect.20), para. 20.51

Chapter 6.1 performance test. There is no UN number or provision assigned solely to paint and printing inks that would allow for specific action to be taken for this industry to address the challenges posed by the reclassification of paints and inks as class 9 environmentally-hazardous substances.

## Discussion

3. Paint and printing ink are regularly transported in quantities between 5 and 30 litres to meet the requirements of the market. Printing ink concentrates are often supplied in small quantities to customers to facilitate the ink matching and blending procedures required within the printshop, and require repeated opening and closure. Decorative paints and industrial coatings are supplied globally in very high volumes in small packagings, especially in 5, 10, and 25 litre quantities. These are used both by consumers and professionals, and can require the addition of color tinters at the point-of-sale to products, which in turn requires the use of packaging that can be easily resealed and safely used accordingly. Currently, there is only a very limited supply of UN-approved packaging that can be used for such products and they are not appropriate for the tinting and resealing procedure. There is a need to approach this issue pragmatically, taking into account packaging availability and recyclability options to allow for the continued supply of product in standard packaging between 5 and 30 litres, rather than drive the paint and printing ink industry towards relying on 5 litre exempt packaging in future. This would be a less sustainable situation compared to the current status quo and contradicts the key driving principles of our circular economy and sustainability goals.

4. Paint and printing ink have already been officially acknowledged as mixtures requiring specific rules under UN transport regulations, with the UN 1210 and UN 1263 classifications relating to flammability, distinguishing the flammability of a mixture from the flammability of substances (i.e., solvents). There are also specific UN numbers (e.g., UN 3066, 3469, 3470) for paints classified as corrosive. Consequently, extending this approach to other classification issues, such as environmentally hazardous products, would not be setting a precedent.

5. The reclassification of a large proportion of water-borne paints manufactured and supplied in the European Union (EU), due to the harmonized classification of certain preservatives (the fifteenth adaptation to technical progress (ATP) of the Commission Delegated Regulation (EU) 2020/1182 of 19 May 2020 on classification, labelling and packaging (CLP)), has resulted in a very significant number of products being reclassified as class 9 environmentally-hazardous to the aquatic environment even though they contain small fractions of a percent of the preservative triggering the reclassification (e.g., down to 0.025% of preservative triggers classification in some cases). Further impacts from future harmonized classifications are also anticipated based on the proposals and scientific opinions of certain authorities (European Commission and the European Chemicals Agency (ECHA)). As a result, appropriate action on dangerous goods transport legislation is required to mitigate the impact of such classifications and to provide a pragmatic approach to addressing this challenge.

6. The risks associated with the transportation of small packagings of class 9 materials has been deemed negligible to non-existent in several regions, including the United States of America and Australia, where significantly higher exemptions are already in place (e.g., up to 500 litres). The paint and printing ink industry is not aware of any transport incidents involving small packages of UN 3082 classified products from its sector since the introduction of special provision SP 375 in 2015. However, it is acknowledged that it has not been possible to identify sources of information on dangerous goods transportation incidents relating to small packages to support the arguments presented. In addition, data on incidents involving products that were previously not classified as Class 9 is not publicly available. There are ongoing efforts to identify appropriate data and information on this topic.

7. Presently, the same transportation rules are applied for paint and printing ink mixtures and “pure” substances such as preservatives that are classified as environmentally-hazardous. However, the potential impact to the environment in the case of an incident are clearly and

very significantly different between the spillage of a mixture versus a substance. Any spillage of paint or printing ink mixtures are relatively easy to contain due to their very nature (e.g., viscosity, pigmentation, slow emission from a puncture, etc.), which is likely not the same for a low viscosity transparent liquid substance.

8. The use of proper shipping names linked to UN 3082, and then providing the opportunity to apply specialist transport requirements to specific materials, has already been used in the case of the transportation of lithium-based batteries for disposal and recycling purposes.

## Proposals

9. Based on the information presented, the WCC proposes two new options (C and D below) for consideration by the Sub-Committee in addition to the previous options A and B presented at the June/July session (document ST/SG/AC.10/C.3/2022/22). The WCC is also open to alternative proposals and welcomes discussion with the Sub-Committee as to the best way to proceed.

### Option C

10. This proposed option consists of two parts:

(a) The introduction of two new UN numbers for environmentally-hazardous paint and printing ink mixtures (one for liquid products and one for solid powders), so that substances and mixtures are distinguished within class 9 classification:

“UNxxxx ENVIRONMENTALLY HAZARDOUS PAINT AND PRINTING INK MIXTURES, number for liquid mixtures;

UNxxxx ENVIRONMENTALLY HAZARDOUS PAINT AND PRINTING INK MIXTURES, number for solid mixtures.”

(b) The addition of a new package provision for these new UN numbers for packaging up to 30 litres, with a limited exemption from the Chapter 6.1 performance testing requirements:

“P001/PPx and P002/PPx: Environmentally hazardous mixtures liquid / solid of packing group III, when the content of substances triggers the transport classification under these entries, may be transported in single or inner packagings in a net quantity of up to and including 30 l / 30 kg and, is not required to meet the performance tests of chapter 6.1.”

### Option D

11. This proposed option consists of a new special provision that may be applied specifically to the proper shipping name “UN 3082 (Paint and printing ink related material)”. The language of this new special provision is based on the wording in special provision SP 375, but would be extended to quantities up to 30 litres, as follows:

“**New Special Provision xxx:** When the provisions of 3.1.2.8.1.4 (assigned as paint, printing ink, paint-related material and printing ink-related material) are applied, these substances may be carried in single or combination packagings containing a net quantity per single or inner packagings of 30 l or less for liquids or having a net mass per single or inner packaging of 30 kg for solids and in such case are not subject to any other provisions of these Regulations provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.”