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

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Sub-Committee of Experts on the Transport of Dangerous Goods

Fifty-eighth session

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Item 9 of the provisional agenda

Guiding principles for the Model Regulations

Proposal to add explanatory wording to the Guiding Principles and to add a line to table 4.2 of packing assignments following the assignment of a new UN number to cobalt dihydroxide powder for continued transport in IBC's

Transmitted by the Responsible Packaging Management Association of Southern Africa (RPMASA) and the International Confederation of Plastic Packaging Manufacturers (ICPP)

Proposal to add wording to the Guiding Principles in the UN Model Regulations

1. During the discussions held on 30 November 2020, it was agreed to separate the proposed addition to the Guiding Principles, from the proposal for a new entry UN 35XX and provisions for COBALT DIHYDROXIDE POWDER.
2. At the 57th session in December 2020, the Sub-Committee agreed to assign UN 3550 to "COBALT DIHYDROXIDE POWDER, containing ≥ 10 % respirable particles.", and to defer further discussion to firm up proposed new wording for inclusion in the Guiding Principles to the 2021-2022 biennium. RPMASA and ICPP were invited to continue work on a revised proposal for amendments to the Guiding Principles.
3. An invitation was circulated to experts to participate in continued intersessional work to firm up the proposed wording for the Guiding Principles in the next biennium, which was accepted by several delegations.

Proposal for additional and explanatory wording to Part 2 and Part 4.2 of the Guiding Principles

4. RPMASA circulated a first draft proposal on 9 March to those delegations who had responded to participate, and invited comments on options for Parts 2 and 4.2. Responses varied considerably, requiring additional interactions and follow-ups.
5. Some delegations questioned the need to add wording to Part 2 as it was pointed out that the Guiding Principles are under continual development to address change. An amended draft was then circulated in May for further comments. Comments received on the second draft were reviewed and incorporated into a revised proposal which was circulated for further comments. Comments received on this were then incorporated into the proposal below.

Part 2 conclusion: The proposal to add wording at the end of Part 2 was not well supported and felt to be unnecessary by most delegations, thus is withdrawn.

Proposal to add to Part 4.2

6. The Sub-Committee is invited to consider the following addition to Table 4.2 and the two possible options to qualify a new note^b after the table.

Part 4.2

7. Add a new line entry in table 4.2 Packing Instruction assignments for IBC's under Division 6.1 solids without subsidiary risk with a qualifying note^b, as follows:

“UN 3550 COBALT DIHYDROXIDE POWDER, containing ≥ 10 % respirable particles - PG I and IBC07^b”

with the addition of a note^b to qualify this at the end of the table.

Option 1: proposed wording for note^b:

“^b For more details on the assignment of IBC07 (for transport in FIBC's of 13H3 or 13H4) with "sift-proof liners to prevent any egress of dust during transport" to UN 35XX COBALT DIHYDROXIDE POWDER, Division 6.1, PGI, please consult working paper ST/SG/AC.10/C.3/2020/21/Rev.1 as amended by informal document INF.45 of the 57th session of the TDG Sub-Committee.”

Option 2: Alternate wording for note^b:

“^b Noting the unique properties of cobalt dihydroxide* powder, which include that it is: hygroscopic, heavy with a density of 3.6 g/cm^3 thus tends to clump and not remain airborne and that the airborne fraction has a low respirability value of only 0.8 % modelled to deposit in the deep lung, together with the lack of physical hazards apart from hazardous to the aquatic environment, and over 40 years' experience of safe transport. The Sub-Committee agreed to authorise UN 35XX in flexible intermediate bulk containers, provided these include a sift-proof liner, and are transported in closed transport units.”

Explanation of note^{*}: Unique properties of cobalt dihydroxide

- is hygroscopic and tends to clump,
- has zero vapour pressure,
- has a relative density is 3.6 g/cm^3 i.e. it is heavy so does not remain in air for extended time,
- poses neither oral or dermal toxic hazard,
- the Airborne fraction of bulk material has a low respirability value - 0.8 % is modelled to deposit in the pulmonary (deep lung) region,
- as well as the fact that although it is hazardous to the aquatic environment it presents no further physical hazards, and
- the experience of over 40 years of safe transport in flexible IBC's,

all of which above properties indicate that the risk of health risks by inhalation from a spill is low.”
