

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 of the provisional agenda

Listing, classification and packing

Adequate UN entry for 2,4-Dichlorophenol with a possible solution for all chlorophenols – revised proposal

Transmitted by the expert from Germany

I. Introduction

1. Germany presented working document ST/SG/AC.10/C.3/2023/33 at the sixty session of the Sub-Committee. As a follow-up to the discussion in plenary this informal document provides further information as well as a revised proposal for the consideration of the Sub-Committee.

2. The competent authority in Germany received a request from a company to classify the substance 2,4-dichlorophenol. In the Alphabetical Index of the IMDG Code 2,4-dichlorophenol is assigned as UN 2923 (Corrosive, solid, toxic, n.o.s.). In the Alphabetical Index of the UN Model Regulation only dichlorophenol is listed with UN 2020. As can be seen later only 2,3-dichlorophenol is maybe correctly addressed by UN 2020 from the 6 dichlorophenols.

3. Dangerous goods commonly carried are listed in the Dangerous Goods List in chapter 3.2. Where a substance is specifically listed by name, it shall be identified in transport by the proper shipping name in the Dangerous Goods List. The substances listed by name in column (2) of the Dangerous Goods List of chapter 3.2 shall be transported according to their classification in the list or under the conditions specified in 2.0.0.2.

4. Paragraph 2.0.0.2 of the *Model Regulations* states:

“2.0.0.2 A consignor who has identified, on the basis of test data, that a substance listed by name in column 2 of the Dangerous Goods List in chapter 3.2 meets classification criteria for a hazard class or division that is not identified in the list, may, with the approval of the competent authority, consign the substance:

(a) Under the most appropriate generic or not otherwise specified (N.O.S.) entry reflecting all hazards; or

(b) Under the same UN number and name but with additional hazard communication information as appropriate to reflect the additional subsidiary hazard(s) (documentation, label, placard) provided that the primary hazard class remains unchanged and that any other transport conditions (e.g. limited quantity, packaging and tank provisions) that would normally apply to substances possessing such a combination of hazards are the same as those applicable to the substance listed.

NOTE: *When a competent authority grants such approvals, it should inform the United Nations Sub-Committee of Experts on the Transport of Dangerous Goods accordingly and submit a relevant proposal of amendment to the Dangerous Goods List. Should the proposed amendment be rejected, the competent authority should withdraw its approval.”*

5. As can be seen in paragraph 4 above, a substance, which is regularly transported, can not be transported indefinitely under a generic n.o.s. entry. Germany and the majority of the delegates spoken preferred Option 2 of the Working Document ST/SG/AC.10/C.3/2023/33.

II. Discussion

6. Classification of the chlorophenols

Name	Cas-No.	Classification according to GHS criteria*	Classification according to TDG criteria
2-monochlorophenol	95-57-8	Skin Corr. Cat. 1?	Class 8 PG?
3-monochlorophenol	108-43-0	Skin Corr. Cat. 2, Acute Tox. Cat.4 oral, dermal, inhalative	Not DG
4-monochlorophenol	106-48-9	Skin Corr. Cat. 1B	Class 8 PG II**
2,3-dichlorophenol	576-24-9	Skin Corr. Cat. 2, Acute Tox. Cat. 4 oral, Cat. 3-4 dermal	Division 6.1 PG III?
2,4-dichlorophenol	120-83-2	Skin Corr. Cat. 1B, Acute Tox. Cat. 3 dermal	Class 8 (6.1) PG II
2,5-dichlorophenol	583-78-8	Skin Corr. Cat. 1B	Class 8 PG II
2,6-dichlorophenol	87-65-0	Skin Corr. Cat. 1B	Class 8 PG II
3,5-dichlorophenol	591-35-5	Skin Corr. Cat 1B, Acute Tox. Cat. 3 dermal	Class 8 (6.1) PG II
3,4-dichlorophenol	95-77-2	Skin Corr. Cat. 1B, Acute Tox. Cat. 3 inhalative and maybe also dermal	Class 8 (6.1) PG II
2,3,4-trichlorophenol	15950-66-0	Skin Corr. Cat. 2, Acute Tox. Cat. 4 oral	Not DG
2,3,5-trichlorophenol	933-78-8	Skin Corr. Cat. 2, Acute Tox. Cat. 4 oral	Not DG
2,3,6-trichlorophenol	933-75-5	Skin Corr. Cat. 2, Acute Tox. Cat. 3-4 oral	Division 6.1 PG III?
2,4,5-trichlorophenol	95-95-4	Skin Corr. Cat. 2, Acute Tox. Cat. 4 oral	Not DG
2,4,6-trichlorophenol	88-06-2	Skin Corr. Cat. 2, Acute Tox. Cat. 4 oral	Not DG
3,4,5-trichlorophenol	609-19-8	Skin Corr. Cat. 2, Acute Tox. Cat. 4 oral, dermal, inhalative	Not DG
2,3,4,5-tetrachlorophenol	4901-51-3	Skin Corr. Cat. 2, Acute Tox. Cat. 3 oral	Division 6.1 PG III
2,3,4,6-tetrachlorophenol	58-90-2	Skin Corr. Cat. 2, Acute Tox. Cat. 3 oral	Division 6.1 PG III
2,3,5,6-tetrachlorophenol	935-95-5	Skin Corr. Cat. 2, Acute Tox. Cat. 3 oral	Division 6.1 PG III
Pentachlorophenol	87-86-5	Not in the databank, has own UN Nr.	Division 6.1 PG II

*based on Data from the GESTIS database (www.dguv.de/ifa/stoffdatenbank from the Institute for Occupational Safety and/or Health of the German Social Accident Insurance) and/or from the ECHA database (echa.europa.eu from the European Chemicals Agency)

** according to WHO (1989. Chlorophenols other than pentachlorophenol. Environmental Health Criteria 93. Geneva, Switzerland: World Health Organization.) the substance is also classified as Class 6.1 PG III as subsidiary hazard

7. This table shows that the majority of the trichlorophenols are not dangerous goods, as China already pointed it out, but the proposed n.o.s. entries would allow the transport of these substances not only under the current UN 2020. These substances should be transported according 2.0.2.7 of the UN *Model Regulations*. (2.0.2.7: „A mixture or solution containing one or more substances identified by name in these Regulations or classified under a N.O.S. entry and one or more substances is not subject to these Regulations if the hazard characteristics of the mixture or solution are such that they do not meet the criteria (including human experience criteria) for any class.“)

8. Pure chlorophenols, except 2-monochlorophenol, are solid at room temperature as pentachlorophenol (CAS-No. 87-86-5), which is the only of the 19 chlorophenols (phenols with only chlorine substituent(s), that has an individual entry under UN 3155 in the Dangerous Goods List. Pentachlorophenol has also only one UN entry for its solid form, as it is also transported most of the time in solid form as the other chlorophenols. The only liquid chlorophenol is the 2-monochlorophenol, but the classification of it is not harmonized in the

different databases. In the Annex VI of the Regulations (EC) No. 1272/2008 on classification, labelling and packaging (CLP Regulation) it is classified as non-dangerous goods.

9. According to Chapter 3.3 of the Guiding Principle there is a need to add special provision 274 to n.o.s. entries of Division 6.1 in order to speed up the provision of appropriate first aid measures. There is no need for special provision 274 for other n.o.s. entries of classes other than Division 6.1 as the technical name in this case would not deliver additional information that would lead to different emergency measures. The specific n.o.s. entries already define the measures needed.

10. In the Guiding Principles there is no suggestion for IBCs for class 8 solid substances with packing group II with or without division 6.1 as subsidiary hazard. We believe that IBC08 is correct for solids with class 8 packing group II, as it stands in all of the cases in the UN *Model Regulations* for these substances (e.g. UN 1770, UN 1794, UN 1807, UN 1813, UN 1825 etc.)

III. Proposal

11. Germany proposes a classification with an appropriate N.O.S. entry for chlorophenols not meeting classification criteria of UN 2020 and UN 2021. In accordance with 2.0.0.2 of the *Model Regulations* amend the two existing UN entries of UN 2020 and UN 2021 and introduce two new UN numbers for chlorophenols in the Dangerous Goods List in Chapter 3.2 as follows (new text is underlined):

UN No.	Name and description	Class or division	Subsidiary Hazard	UN packing group	Special Provi-sions	Limited and excepted quantities		Packagings and IBCs		Portable tanks and bulk containers	
								Packing instruction	Special packing provisions	Instruc-tions	Special provisions
(1)	(2)	(3)	(4)	(5)	(6)	(7)		(8)	(9)	(10)	(11)
2020	CHLOROPHENOLS, <u>TOXIC, SOLID, N.O.S</u>	6.1		III	205 <u>274</u>	5 kg	E1	P002 IBC08 LP02	B3	T1	TP33
2021	CHLOROPHENOLS, <u>TOXIC, LIQUID, N.O.S</u>	6.1		III	<u>274</u>	5 L	E1	P001 IBC03 LP01		T4	TP1
<u>XXXX</u>	<u>CHLOROPHENOLS, CORROSIVE, TOXIC, SOLID, N.O.S</u>	<u>8</u>	<u>6.1</u>	<u>II</u>		<u>1 kg</u>	<u>E2</u>	<u>P002</u> <u>IBC08</u>	<u>B2, B4</u>	<u>T3</u>	<u>TP33</u>
<u>XXXV</u>	<u>CHLOROPHENOLS, CORROSIVE, SOLID, N.O.S</u>	<u>8</u>		<u>II</u>		<u>1 kg</u>	<u>E2</u>	<u>P002</u> <u>IBC08</u>	<u>B2, B4</u>	<u>T3</u>	<u>TP33</u>

Required supplementary provisions

12. Delete from the Alphabetical Index of the *Model Regulations*:

“Dichlorophenol, see Class 6.1 UN No. 2020
Class 6.1 UN No. 2021”

13. Amend the Alphabetical Index as follows (new text is underlined):

“CHLOROPHENOLS, TOXIC, SOLID, N.O.S. Class: 6.1 UN No. 2020
CHLOROPHENOLS, TOXIC, LIQUID, N.O.S. Class: 6.1 UN No. 2021
CHLOROPHENOLS, CORROSIVE, TOXIC, SOLID, N.O.S. Class: 8 UN No. XXXX”

CHLOROPHENOLS, CORROSIVE, SOLID, N.O.S

Class: 8

UN No. XXXY”
