



## 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

#### Fifty-eighth session

Geneva, 28 June-2 July 2021

Item 3 of the provisional agenda

#### Listing, classification and packing

### New UN entries for chlorophenols

#### Transmitted by the expert from Germany\*

#### Introduction

1. The competent authorities in Germany received a request from a company to classify the substance 2,4-dichlorophenol and carried out a review of the available data in this context. It was pointed out that the substance according to European Chemicals Agency (ECHA) and the European Union Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP) also has a corrosive effect on the skin of GHS category 1B.

2. Chlorophenols are currently transported under UN 2020 or UN 2021 CHLOROPHENOLS, Class 6.1 in solid or liquid form with packing group III.

UN No. Substance	Class	Subsidiary Hazard	UN packing group	Special provisions	Limited and excepted quantities		Packagings and IBCs		Portable tanks and bulk containers	
							Packing instruction	Special packing provisions	Instruc- tions	Special provisions
UN 2020 CHLOROPHENOLS, SOLID	6.1		III	205	5 kg	E1	P002 IBC08 LP02	B3	T1	TP33
UN 2021 CHLOROPHENOLS, LIQUID	6.1		III		5 L	E1	P001 IBC03 LP01		T4	TP1

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

3. 2,4-Dichlorophenol (CAS-No. 120-83-2) and other chlorophenols (e.g. 2,4-, 2,6-, 3,4- and 3,5-dichlorophenol) are classified as both, corrosive (Skin Corr. Cat. 1B) and toxic (Acute Tox. Cat. 3, dermal) according to GHS criteria. Toxicological properties for these chlorophenols result in Class 8, subsidiary hazard 6.1, according to the Model Regulations.
4. 2,4-Dichlorophenol and other chlorophenols with corrosive properties are expected to be transported at the present time under UN 2020 or UN 2021.
5. UN 2020 and UN 2021 do not meet the corrosive properties and required packing group of 2,4-Dichlorophenol and other chlorophenols with corrosive properties. Moreover, the specific transportation requirements of the substance differ from those regulated within UN 2020 or UN 2021.
6. When classifying and transporting chlorophenols as dangerous goods, corrosive properties and transportation requirements should be considered taking into account current toxicological information on different chlorophenols.

## Proposal

7. Amend 3.2 Dangerous Goods List and the Alphabetical Index of the Model Regulations by introducing four new UN entries, as follows:

UN No. Substance	Class	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
UN XXXX CHLOROPHENOLS, LIQUID	8	6.1	II		1 L	E2	P001 IBC02		T7	TP1
UN XXXX CHLOROPHENOLS, LIQUID	8	6.1	III		5 L	E1	P001 IBC03 LP01		T4	TP1
UN XXXY CHLOROPHENOLS, SOLID	8	6.1	II		1 kg	E2	P002 IBC08	B2, B4	T3	TP33
UN XXXY CHLOROPHENOLS, SOLID	8	6.1	III		5 kg	E1	P002 IBC08 LP02	B3	T1	TP33

## Annex

### Data sheet to be submitted to the United Nations for new or amended classification of substances

Submitted by Germany

Date 01.09.2020

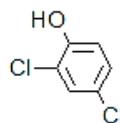
Supply all relevant information including sources of basic classification data. Data should relate to the product in the form to be transported. State test methods. Answer all questions - If necessary, state "not known" or "not applicable" - If data is not available in the form requested, provide what is available with details. Delete inappropriate words.

#### Section 1. SUBSTANCE IDENTITY

1.1 Chemical name: 2,4-Dichlorophenol

1.2 Chemical formula: C<sub>6</sub>H<sub>4</sub>Cl<sub>2</sub>O

1.3 Other names/synonyms: 2,4-DCP



1.4.1 UN number: 2020

1.4.2 CAS number: 120-83-2

1.5 Proposed classification for the Recommendations:

UN XXXX CHLOROPHENOLS, SOLID, CLASS 8 (6.1), PG II and PG III

UN XXXY CHLOROPHENOLS, LIQUID, CLASS 8 (6.1), PG II and PG III

1.5.1 proper shipping name (3.1.2<sup>1</sup>) CHLOROPHENOLS, SOLID

1.5.2 class/division 8 subsidiary hazard(s): 6.1 packing group PG II

1.5.3 proposed special provisions, if any:

- Limited and excepted quantities: 1 kg, E2
- Special packing provisions: B2, B4
- Portable tanks and bulk containers:
  - Instructions: T3
  - Special provisions: TP33

1.5.4 proposed packing instruction(s): P002, IBC08

#### Section 2. PHYSICAL PROPERTIES

2.1 Melting point or range \_\_\_ °C

2.2 Boiling point or range \_\_\_ °C

2.3 Relative density at:

2.3.1 15 °C \_\_\_

2.3.2 20 °C \_\_\_

2.3.3 50 °C \_\_\_

2.4 Vapour pressure at:

2.4.1 50 °C \_\_\_ kPa

2.4.2 65 °C \_\_\_ kPa

2.5 Viscosity at 20 °C<sup>2</sup> \_\_\_ m<sup>2</sup>/s

- 2.6 Solubility in water at 20 °C \_\_\_ g/100 ml
- 2.7 Physical state at 20°C (2.2.1.1<sup>1</sup>) solid/liquid/gas<sup>2</sup>
- 2.8 Appearance at normal transport temperatures, including colour and odour \_\_\_
- 2.9 Other relevant physical properties \_\_\_

### Section 3. FLAMMABILITY

- 3.1 Flammable vapour
  - 3.1.1 Flash point (2.3.3<sup>1</sup>) \_\_\_ °C oc/cc
  - 3.1.2 Is combustion sustained? (2.3.1.3<sup>1</sup>)        yes/no
- 3.2 Autoignition temperature \_\_\_ °C
- 3.3 Flammability range (LEL/UEL) \_\_\_ %
- 3.4 Is the substance a flammable solid? (2.4.2<sup>1</sup>)        yes/no
  - 3.4.1 If yes, give details \_\_\_

### Section 4. CHEMICAL PROPERTIES

- 4.1 Does the substance require inhibition/stabilization or other treatment such as nitrogen blanket to prevent hazardous reactivity?    yes/no

If yes, state:

- 4.1.1 Inhibitor/stabilizer used \_\_\_
- 4.1.2 Alternative method \_\_\_
- 4.1.3 Time effective at 55 °C \_\_\_
- 4.1.4 Conditions rendering it ineffective \_\_\_
- 4.2 Is the substance an explosive according to paragraph 2.1.1.1? (2.1<sup>1</sup>)    yes/no
  - 4.2.1 If yes, give details \_\_\_
- 4.3 Is the substance a desensitized explosive? (2.4.2.4<sup>1</sup>)        yes/no
  - 4.3.1 If yes, give details \_\_\_
- 4.4 Is the substance a self-reactive substance? (2.4.1<sup>1</sup>)        yes/no

If yes, state:

- 4.4.1 exit box of flow chart \_\_\_

What is the self-accelerating decomposition temperature (SADT) for a 50 kg package? °C

Is the temperature control required? (2.4.2.3.4<sup>1</sup>)    yes/no

- 4.4.2 proposed control temperature for a 50 kg package \_\_\_ °C
- 4.4.3 proposed emergency temperature for a 50 kg package \_\_\_ °C
- 4.5 Is the substance pyrophoric? (2.4.3<sup>1</sup>)        yes/no
  - 4.5.1 If yes, give details \_\_\_
- 4.6 Is the substance liable to self-heating? (2.4.3<sup>1</sup>)        yes/no
  - 4.6.1 If yes, give details \_\_\_
- 4.7 Is the substance an organic peroxide (2.5.1<sup>1</sup>)        yes/no

If yes state:

- 4.7.1 exit box of flow chart \_\_\_

What is the self-accelerating decomposition temperature (SADT) for a 50 kg package?  
 \_\_\_ °C

Is temperature control required? (2.5.3.4.1) yes/no

4.7.2 proposed control temperature for a 50 kg package \_\_\_ °C

4.7.3 proposed emergency temperature for a 50 kg package \_\_\_ °C

4.8 Does the substance in contact with water emit flammable gases? (2.4.4<sup>1</sup>) yes/no

4.8.1 If yes, give details \_\_\_

4.9 Does the substance have oxidizing properties (2.5.1<sup>1</sup>) yes/no

4.9.1 If yes, give details \_\_\_

4.10 Corrosivity (2.8<sup>1</sup>) to:

4.10.1 mild steel \_\_\_ mm/year at \_\_\_ °C

4.10.2 aluminium \_\_\_ mm/year at \_\_\_ °C

4.10.3 other packaging materials (specify)

\_\_\_ mm/year at \_\_\_ °C

\_\_\_ mm/year at \_\_\_ °C

4.11 Other relevant chemical properties \_\_\_

## Section 5. HARMFUL BIOLOGICAL EFFECTS

5.1 LD<sub>50</sub>, oral (2.6.2.1.1<sup>1</sup>) 1276 mg/kg bw to 1352 mg/kg bw

Animal species: Mouse<sub>m/f</sub> (CD-1)

5.2 LD<sub>50</sub>, dermal (2.6.2.1.2<sup>1</sup>) 780 mg/kg bw Animal species: Rat<sub>m/f</sub> (Sprague-Dawley)

5.3 LC<sub>50</sub>, inhalation (2.6.2.1.3<sup>1</sup>) \_\_\_ mg/litre Exposure time \_\_\_ hours

or \_\_\_ ml/m<sup>3</sup> Animal species \_\_\_

5.4 Saturated vapour concentration at 20 °C (2.6.2.2.4.3<sup>1</sup>) \_\_\_ ml/m<sup>3</sup>

5.5 Skin exposure (2.8<sup>1</sup>) results Exposure time 15 minutes

Animal species: Rabbit

5.6 Other data \_\_\_

5.7 Human experience \_\_\_

## Section 6. SUPPLEMENTARY INFORMATION

6.1 Recommended emergency action

6.1.1 Fire (include suitable and unsuitable extinguishing agents) \_\_\_

6.1.2 Spillage \_\_\_

6.2 Is it proposed to transport the substance in:

6.2.1 Bulk Containers (6.8<sup>1</sup>) yes/no

6.2.2 Intermediate Bulk Containers (6.5<sup>1</sup>)? yes/no

6.2.3 Portable tanks (6.7<sup>1</sup>)? yes/no

If yes, give details in Sections 7, 8 and/or 9.

**Section 7. BULK CONTAINERS (only complete if yes in 6.2.1)**

7.1 Proposed type(s) \_\_\_\_

**Section 8. INTERMEDIATE BULK CONTAINERS (IBCs) (only complete if yes in 6.2.2)**

8.1 Proposed type(s) \_\_\_\_

**Section 9. MULTIMODAL TANK TRANSPORT (only complete if yes in 6.2.3)**

9.1 Description of proposed tank (including IMO tank type if known) \_\_\_\_

9.2 Minimum test pressure \_\_\_\_

9.3 Minimum shell thickness \_\_\_\_

9.4 Details of bottom openings, if any \_\_\_\_

9.5 Pressure relief arrangements \_\_\_\_

9.6 Degree of filling \_\_\_\_

9.7 Unsuitable construction materials \_\_\_\_

\_\_\_\_\_