

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)  
Classifications according to Regulation (EC) No 1272/2008.  
Printdate 08 Jan 2025

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product name:

2,4-Dichlorophenol

### 1.1. Catalog No.:

673135

### 1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical  
uses: R&D

### 1.3. Uses advised against:

HPC Standards GmbH  
Am Wieseneck 7

04451 Cunnersdorf  
Deutschland

Tel. +49 34291 3372-36  
Fax. +49 34291 3372-39  
contact@hpc-standards.com

### 1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36  
This number is only available during office hours.

## 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Acute toxicity, Dermal (Category 3)

Acute toxicity, Oral (Category 4)

Skin corrosion (Category 1B)

Chronic aquatic toxicity (Category 2)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Toxic in contact with skin. Causes burns. Harmful if swallowed. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 2.2. Label elements

#### 2.2.1. Pictogram



#### 2.2.2.

Signal word Danger  
Hazard statement(s)  
H302 Harmful if swallowed.  
H311 Toxic in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H411 Toxic to aquatic life with long lasting effects.  
Precautionary statement(s)  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor/ physician.  
Supplemental Hazard  
Statements  
none  
According to European Directive 67/548/EEC as amended.  
Hazard symbol(s) R-phrases(s)  
R22 Harmful if swallowed.  
R24 Toxic in contact with skin.  
R34 Causes burns.  
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
S-phrases(s)  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.  
2.3 Other hazards - none

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances  
Formula : C<sub>6</sub>H<sub>4</sub>Cl<sub>2</sub>O  
Molecular Weight : 163,00 g/mol  
Component Concentration  
2,4-Dichlorophenol  
CAS-No.  
EC-No.  
Index-No.  
120-83-2  
204-429-6  
604-011-00-7  
-

#### 3.1.1. Formula

C<sub>6</sub>H<sub>4</sub>Cl<sub>2</sub>O

### 3.1.2. Molecular Weight (g/mol)

163.00

### 3.1.3. CAS-No.

120-83-2

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Weakness, Lowered blood pressure, Tremors, Dizziness, Confusion., Convulsions, Cyanosis, Shock., Unconsciousness, Symptoms may be delayed., Molten or hot 2,4-Dichlorophenol is immediately absorbed through the skin in amounts which have caused death in humans. Rapid death in humans has been caused by skin exposure without immediate decontamination. Amounts of molten 2,4-Dichlorophenol that may cover as little as 1% body surface area (hand-size) may cause death.

### 4.3 Indication of any immediate medical attention and special treatment needed

no data available

## 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides, Hydrogen chloride gas

### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

### 5.4 Further information

no data available

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### 6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

### 7.3 Specific end use(s)

no data available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Components with workplace control parameters

### 8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands. Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

a) Appearance Form: crystalline

Colour: light brown

b) Odour no data available

c) Odour Threshold no data available

d) pH no data available

e) Melting point/freezing  
point

Melting point/range: 42 - 43 °C - lit.

f) Initial boiling point and  
boiling range

209 - 210 °C - lit.

g) Flash point 114,0 °C - closed cup

h) Evaporation rate no data available

i) Flammability (solid, gas) no data available j) Upper/lower  
flammability or  
explosive limits

no data available

k) Vapour pressure 0,1 hPa at 25,0 °C

l) Vapour density no data available

m) Relative density 1,38 g/cm<sup>3</sup> at 60,00 °C

n) Water solubility no data available

o) Partition coefficient: noctanol/  
water

log Pow: 3,06

p) Auto-ignition  
temperature

no data available

q) Decomposition  
temperature

no data available

r) Viscosity no data available

s) Explosive properties no data available

t) Oxidizing properties no data available

### 9.2 Other safety information

no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

no data available

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

no data available

### 10.5 Incompatible materials

Oxidizing agents, acids, Acid chlorides, Acid anhydrides, Metals

### 10.6 Hazardous decomposition products

Other decomposition products - no data available

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - rat - 47,0 mg/kg

Remarks: Behavioral: Food intake (animal). Lungs, Thorax, or Respiration: Dyspnea. Gastrointestinal: Other changes.

LD50 Dermal - Mammal - 790,0 mg/kg  
Skin corrosion/irritation  
Skin - rabbit - Severe skin irritation - 24 h - Draize Test  
Serious eye damage/eye irritation  
no data available  
Respiratory or skin sensitization  
no data available  
Germ cell mutagenicity  
no data available Carcinogenicity  
IARC: 2B - Group 2B: Possibly carcinogenic to humans (2,4-Dichlorophenol)  
2B - Group 2B: Possibly carcinogenic to humans (2,4-Dichlorophenol)  
Reproductive toxicity  
no data available  
Specific target organ toxicity - single exposure  
no data available  
Specific target organ toxicity - repeated exposure  
no data available  
Aspiration hazard  
no data available  
Potential health effects  
Inhalation May be harmful if inhaled. Causes respiratory tract irritation.  
Ingestion May be fatal if swallowed.  
Skin Toxic if absorbed through skin. Causes skin irritation.  
Eyes Causes eye burns.  
Signs and Symptoms of Exposure  
spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi,  
pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath,  
Headache, Nausea, Vomiting, Material is extremely destructive to tissue of the mucous membranes and  
upper respiratory tract, eyes, and skin., Weakness, Lowered blood pressure, Tremors, Dizziness,  
Confusion., Convulsions, Cyanosis, Shock., Unconsciousness, Symptoms may be delayed., Molten or hot  
2,4-Dichlorophenol is immediately absorbed through the skin in amounts which have caused death in  
humans. Rapid death in humans has been caused by skin exposure without immediate decontamination.  
Amounts of molten 2,4-Dichlorophenol that may cover as little as 1% body surface area (hand-size) may  
cause death.  
Additional Information  
RTECS: SK8575000

## 12. ECOLOGICAL INFORMATION

12.1 Toxicity  
Toxicity to fish LC50 - *Lepomis macrochirus* (Bluegill) - 1,6 - 2,6 mg/l - 96,0 h  
LC50 - *Oncorhynchus mykiss* (rainbow trout) - 2,2 - 3,1 mg/l - 96,0 h  
Toxicity to daphnia and  
other aquatic  
invertebrates  
EC50 - *Daphnia magna* (Water flea) - 2,70 - 3,90 mg/l - 24 h  
Toxicity to algae EC50 - *Chlorella vulgaris* (Fresh water algae) - 9,20 mg/l - 96 h  
Growth inhibition EC50 - *Chlorella vulgaris* (Fresh water algae) - 9,2 mg/l - 96  
h  
12.2 Persistence and degradability  
no data available  
12.3 Bioaccumulative potential  
Bioaccumulation *Carassius auratus* (goldfish) - 24 h -8 mg/l  
Bioconcentration factor (BCF): 34  
12.4 Mobility in soil  
no data available  
12.5 Results of PBT and vPvB assessment  
no data available 12.6 Other adverse effects  
Very toxic to aquatic life with long lasting effects

### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

##### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

##### Contaminated packaging

Dispose of as unused product

### 14. TRANSPORT INFORMATION

#### 14.1 UN number

ADR/RID: 2928 IMDG: 2928 IATA: 2928

#### 14.2 UN proper shipping name

ADR/RID: TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S. (2,4-Dichlorophenol)

IMDG: TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S. (2,4-Dichlorophenol)

IATA: Toxic solid, corrosive, organic, n.o.s. (2,4-Dichlorophenol)

#### 14.3 Transport hazard class(es)

ADR/RID: 6.1 (8) IMDG: 6.1 (8) IATA: 6.1 (8)

#### 14.4 Packaging group

ADR/RID: II IMDG: II IATA: II

#### 14.5 Environmental hazards

ADR/RID: yes IMDG Marine Pollutant: yes IATA: no

#### 14.6 Special precautions for user

no data available

### 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

no data available

#### 15.2 Chemical Safety Assessment

no data available

### 16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. For lab use only!