

NOV 27

SIGMA-ALDRICH

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Material Safety Data Sheet

Version 4.1
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 2-Chlorophenol

Product Number : 185779
Brand : Aldrich

Supplier : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA

Telephone : +1 800-325-5832
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Preparation Information : Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Combustible Liquid

Target Organs

Central nervous system, Liver, Kidney

Other hazards which do not result in classification
Stench.

GHS Classification

Flammable liquids (Category 4)
Acute toxicity, Inhalation (Category 4)
Acute toxicity, Dermal (Category 4)
Acute toxicity, Oral (Category 4)
Acute aquatic toxicity (Category 2)

GHS Label elements, including precautionary statements

Pictogram



Signal word : Warning

Hazard statement(s)

H227 : Combustible liquid
H302 + H312 : Harmful if swallowed or in contact with skin
H332 : Harmful if inhaled.
H401 : Toxic to aquatic life.

Precautionary statement(s)

P280 : Wear protective gloves/ protective clothing.

HMIS Classification

Health hazard: 1

Chronic Health Hazard: 4
Flammability: 2
Physical hazards: 0

NFPA Rating
Health hazard: 2
Fire: 2
Reactivity Hazard: 0

Potential Health Effects

Inhalation : May be harmful if inhaled. May cause respiratory tract irritation.
Skin : May be harmful if absorbed through skin. May cause skin irritation.
Eyes : May cause eye irritation.
Ingestion : May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C₆H₅ClO
Molecular Weight : 128.56 g/mol

| Component | Concentration |
|-----------------------|---------------|
| 2-Chlorophenol | |
| CAS-No. | 95-57-8 |
| EC-No. | 202-433-2 |
| Index-No. | 604-008-00-0 |

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

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. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Conditions of flammability

Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

Suitable extinguishing media

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

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

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Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

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.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Stench.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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).

Hand 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.

Eye 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 and 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.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form liquid, clear
Colour light yellow

Safety data

pH no data available
Melting point/freezing point Melting point/range: 8 °C (46 °F) - lit.

| | |
|--|---|
| Boiling point | 175 - 176 °C (347 - 349 °F) - lit. |
| Flash point | 64.0 °C (147.2 °F) - closed cup |
| Ignition temperature | no data available |
| Autoignition temperature | no data available |
| Lower explosion limit | no data available |
| Upper explosion limit | no data available |
| Vapour pressure | 1.3 hPa (1.0 mmHg) at 121.0 °C (249.8 °F) |
| Density | 1.241 g/cm ³ at 25 °C (77 °F) |
| Water solubility | no data available |
| Partition coefficient: n-octanol/water | log Pow: 2.32 log Pow: 2.17 |
| Relative vapour density | no data available |
| Odour | no data available |
| Odour Threshold | no data available |
| Evaporation rate | no data available |

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Acid chlorides, Acid anhydrides, Oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50
LD50 Oral - rat - 670.0 mg/kg

Inhalation LC50

Dermal LD50

Other information on acute toxicity
no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

EC50 - *Chlorella vulgaris* (Fresh water algae) - 170.00 mg/l - 96 h

Carcinogenicity

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

- Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.
- Ingestion** May be harmful if swallowed.
- Skin** May be harmful if absorbed through skin. May cause skin irritation.
- Eyes** May cause eye irritation.

Signs and Symptoms of Exposure

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., 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, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

no data available

Additional Information

RTECS: SK2625000

12. ECOLOGICAL INFORMATION

Toxicity

- Toxicity to fish
 - LC50 - *Lepomis macrochirus* (Bluegill) - 5.7 - 12 mg/l - 96.0 h
 - LC50 - *Pimephales promelas* (fathead minnow) - 6 - 16 mg/l - 96.0 h
 - LC50 - *Carassius auratus* (goldfish) - 10.7 - 15.2 mg/l - 96.0 h
- Toxicity to daphnia and other aquatic invertebrates
 - EC50 - *Daphnia magna* (Water flea) - 6.30 - 17.90 mg/l - 24 h
 - Immobilization EC50 - *Daphnia magna* (Water flea) - 3.91 mg/l - 48 h
- Toxicity to algae
 - EC50 - *Pseudokirchneriella subcapitata* (green algae) - 70.00 mg/l - 96 h

Persistence and degradability

no data available

Bioaccumulative potential

Bioaccumulation *Lepomis macrochirus* (Bluegill) - 28 d
Bioconcentration factor (BCF): 214

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 2021 Class: 6.1 Packing group: III
Proper shipping name: Chlorophenols, liquid
Reportable Quantity (RQ): 100 lbs
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG

UN number: 2021 Class: 6.1 Packing group: III EMS-No: F-A, S-A
Proper shipping name: CHLOROPHENOLS, LIQUID
Marine pollutant: No

IATA

UN number: 2021 Class: 6.1 Packing group: III
Proper shipping name: Chlorophenols, liquid

15. REGULATORY INFORMATION

OSHA Hazards

Combustible Liquid

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

| | CAS-No. | Revision Date |
|----------------|---------|---------------|
| 2-Chlorophenol | 95-57-8 | 2007-03-01 |

SARA 311/312 Hazards

Fire Hazard

Massachusetts Right To Know Components

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| | | |
|--|--------------------|-----------------------------|
| 2-Chlorophenol | CAS-No. 95-57-8 | Revision Date 2007-03-01 |
| Pennsylvania Right To Know Components | | |
| 2-Chlorophenol | CAS-No. 95-57-8 | Revision Date 2007-03-01 |
| New Jersey Right To Know Components | | |
| 2-Chlorophenol | CAS-No. 95-57-8 | Revision Date 2007-03-01 |
| California Prop. 65 Components | | |
| This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm. | | |

16. OTHER INFORMATION**Further information**

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