

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : *o*-Cresol

Product Number : C85700
Brand : Sigma-Aldrich

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

Telephone : +1 800-325-5832
Fax : +1 800-325-5052
Emergency Phone # (For both supplier and manufacturer) : (314) 776-6555

Preparation Information : Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Target Organ Effect, Highly toxic by inhalation, Toxic by ingestion, Toxic by skin absorption, Corrosive

Target Organs

Liver, Kidney, Pancreas., Spleen., Cardiovascular system., Central nervous system, Lungs

GHS Classification

Acute toxicity, Oral (Category 3)
Acute toxicity, Inhalation (Category 2)
Acute toxicity, Dermal (Category 3)
Skin irritation (Category 2)
Serious eye damage (Category 1)
Acute aquatic toxicity (Category 2)

GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H301 + H311 Toxic if swallowed or in contact with skin
H315 Causes skin irritation.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H401 Toxic to aquatic life.

Precautionary statement(s)

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves/ eye protection/ face protection.
P284 Wear respiratory 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.

HMIS Classification

Health hazard: 3
Chronic Health Hazard: *
Flammability: 0
Physical hazards: 0

NFPA Rating

Health hazard: 3
Fire: 2
Reactivity Hazard: 0

Potential Health Effects

Inhalation May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin Toxic if absorbed through skin. Causes skin burns.
Eyes Causes eye burns.
Ingestion Toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : 2-Methylphenol
Formula : C₇H₈O
Molecular Weight : 108.14 g/mol

| Component | Concentration |
|------------------------|---------------|
| o-Cresol | |
| CAS-No. 95-48-7 | - |
| EC-No. 202-423-8 | |
| Index-No. 604-004-00-9 | |

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. 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. Continue rinsing eyes during transport to hospital.

If swallowed

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

5. FIREFIGHTING MEASURES

Conditions of flammability

Not flammable or combustible.

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

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

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

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

7. HANDLING AND STORAGE

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.

Conditions for safe storage

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

Air and light sensitive. Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

| Components | CAS-No. | Value | Control parameters | Basis |
|------------|--|-------|---------------------------------|--|
| o-Cresol | 95-48-7 | TWA | 5 ppm 22 mg/m ³ | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| Remarks | Skin contact does contribute to exposure. | | | |
| | | TWA | 5 ppm 22 mg/m ³ | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| | Skin contact does contribute to exposure. | | | |
| | | TWA | 5 ppm 22 mg/m ³ | USA. ACGIH Threshold Limit Values (TLV) |
| | Skin contact does contribute to exposure. | | | |
| | | TWA | 2.3 ppm 10 mg/m ³ | USA. NIOSH Recommended Exposure Limits |
| | | TWA | 20 mg/m ³ | USA. ACGIH Threshold Limit Values (TLV) |
| | Upper Respiratory Tract irritation 2010 Adoption Not classifiable as a human carcinogen Danger of cutaneous absorption | | | |
| | | TWA | 5 ppm 22 mg/m ³ | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| | Skin notation | | | |

Personal protective equipment

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).

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.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: > 480 min

Material tested:Camatril® (Aldrich Z677442, Size M)

Splash protection

Material: Nitrile rubber

Minimum layer thickness: 0.2 mm

Break through time: > 30 min

Material tested:Dermatril® P (Aldrich Z677388, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

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

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

| | |
|--------|--------|
| Form | powder |
| Colour | white |

Safety data

| | |
|--|---|
| pH | 4.5 at 25.00000 g/l |
| Melting point/freezing point | Melting point/range: 29 - 31 °C (84 - 88 °F) - lit. |
| Boiling point | 191 °C (376 °F) - lit. |
| Flash point | 81.0 °C (177.8 °F) - closed cup |
| Ignition temperature | 599 °C (1,110 °F) |
| Autoignition temperature | 599.0 °C (1,110.2 °F) |
| Lower explosion limit | 1.3 %(V) |
| Upper explosion limit | 58 %(V) |
| Vapour pressure | 3.1 hPa (2.3 mmHg) at 60.0 °C (140.0 °F) 1.3 hPa (1.0 mmHg) at 38.2 °C (100.8 °F) 0.4 hPa (0.3 mmHg) at 20.0 °C (68.0 °F) |
| Density | 1.05 g/cm ³ at 20.00 °C (68.00 °F) |
| Water solubility | 25 g/l at 20 °C (68 °F) |
| Partition coefficient: n-octanol/water | no data available |

| | |
|-------------------------|-------------------|
| 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

no data available

Materials to avoid

Oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

LD50 Oral - rat - 121.0 mg/kg

Remarks: Behavioral:Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration:Dyspnea.

Gastrointestinal:Ulceration or bleeding from stomach.

Inhalation LC50

LC50 Inhalation - rat - 1 h - > 1,220 mg/m³

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Lacrimation. Behavioral:Somnolence (general depressed activity).

Dermal LD50

LD50 Dermal - rabbit - 890.0 mg/kg

Other information on acute toxicity

no data available

Skin corrosion/irritation

Skin - rabbit - Severe skin irritation - 24 h - Draize Test

Serious eye damage/eye irritation

Eyes - rabbit - Severe eye irritation - Draize Test

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

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.

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 fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. |
| Ingestion | Toxic if swallowed. |
| Skin | Toxic if absorbed through skin. Causes skin burns. |
| Eyes | Causes eye burns. |

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, Central nervous system depression, Diarrhoea, Gastrointestinal disturbance

Synergistic effects

no data available

Additional Information

RTECS: GO6300000

12. ECOLOGICAL INFORMATION

Toxicity

| | |
|---|---|
| Toxicity to fish | LC50 - Leuciscus idus (Golden orfe) - 10.00 mg/l - 96 h |
| Toxicity to daphnia and other aquatic invertebrates | Immobilization EC50 - Daphnia magna (Water flea) - 15.8 mg/l - 48 h |
| Toxicity to algae | EC50 - SELENASTRUM - 100.00 mg/l - 72 h |

Persistence and degradability

no data available

Bioaccumulative potential

no data available

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.

no data available

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. 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

DOT (US)

UN number: 3455 Class: 6.1 (8) Packing group: II
Proper shipping name: Cresols, solid
Reportable Quantity (RQ): 100 lbs
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG

UN number: 3455 Class: 6.1 (8) Packing group: II EMS-No: F-A, S-B
Proper shipping name: CRESOLS, SOLID
Marine pollutant: No

IATA

UN number: 3455 Class: 6.1 (8) Packing group: II
Proper shipping name: Cresols, solid

15. REGULATORY INFORMATION

OSHA Hazards

Target Organ Effect, Highly toxic by inhalation, Toxic by ingestion, Toxic by skin absorption, Corrosive

SARA 302 Components

The following components are subject to reporting levels established by SARA Title III, Section 302:

| | CAS-No. | Revision Date |
|----------|---------|---------------|
| o-Cresol | 95-48-7 | 2007-07-01 |

SARA 313 Components

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

| | CAS-No. | Revision Date |
|----------|---------|---------------|
| o-Cresol | 95-48-7 | 2007-07-01 |

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

| | CAS-No. | Revision Date |
|----------|---------|---------------|
| o-Cresol | 95-48-7 | 2007-07-01 |

Pennsylvania Right To Know Components

| | CAS-No. | Revision Date |
|----------|---------|---------------|
| o-Cresol | 95-48-7 | 2007-07-01 |

New Jersey Right To Know Components

| | CAS-No. | Revision Date |
|----------|---------|---------------|
| o-Cresol | 95-48-7 | 2007-07-01 |

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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