

MATERIAL SAFETY DATA SHEET

Ortho-CRESOL 98%

(For Synthesis)

MSDS CAS: 95-48-7

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product

Product Name: Ortho-CRESOL

CAS#: 95-48-7

Synonym: 1-Hydroxy-2-methylbenzene; 2-Cresol; 2-Hydroxytoluene; 2-Methylphenol; o-Cresylic acid; o-Hydroxytoluene; o-Methylphenol; o-Oxytoluene; o-Toluol; Orthocresol; Phenol, 2-methyl-

Chemical Name: O-Cresol

Chemical Formula: C₇H₈O

Brand: OXFORD

Details Of The Supplier Of The Safety Data Sheet :

Company identification:

OXFORD LAB FINE CHEM LLP

Unit. No. 12, 1st Floor, Neminath Industrial Estate No. 6,
Navghar, Vasai (East). Palghar - 401 210.

Mumbai, Maharashtra, INDIA.

Tel: 91-250-2390989

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Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
{o-}Cresol	95-48-7	100

Section 2: Composition and Information on Ingredients (Continued)

Toxicological Data on Ingredients:

o-Cresol: ORAL (LD50): Acute: 121 mg/kg [Rat]. 344 mg/kg [Mouse]. DERMAL (LD50): Acute: 890 mg/kg [Rabbit]. 620 mg/kg [Rat]. INHALATION (MIST) (LC50): Acute: 179 mg/m 2 hours [Mouse].

Section 3: Hazards Identification

Potential Acute Health Effects:

Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive). The amount of tissue damage depends on length of contact. Eye contact can result in corneal damage or blindness. Skin contact can produce inflammation and blistering. Inhalation of dust will produce irritation to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing. Severe over-exposure can produce lung damage, choking, unconsciousness or death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Classified POSSIBLE by IRIS. **MUTAGENIC EFFECTS:** Not available. **TERATOGENIC EFFECTS:** Not available. **DEVELOPMENTAL TOXICITY:** Not available. The substance may be toxic to kidneys, lungs, liver, skin, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Skin Contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Section 4: First Aid Measures (Continued)

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion:

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: 598.89°C (1110°F).

Flash Points: CLOSED CUP: 81°C (177.8°F).

Flammable Limits: LOWER: 1.4%

Products of Combustion: These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances:

Flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks.

Section 5: Fire and Explosion Data (Continued)

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards:

When heated to decomposition it emits highly toxic fumes. When heated to decomposition it emits irritating fumes.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill:

Corrosive solid. Poisonous solid. Stop leak if without risk. If the product is in its solid form: Use a shovel to put the material into a convenient waste disposal container. If the product is in its liquid form: Do not get water inside container. Absorb with an inert material and put the spilled material in an appropriate waste disposal. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

Section 7: Handling and Storage (Continued)

Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area. Sensitive to light. Store in light-resistant containers. Air Sensitive Hygroscopic.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor and dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

TWA: 5 from ACGIH (TLV) [United States] SKIN TWA: 2.3 (ppm) from NIOSH [United States] TWA: 10 (mg/m³) from NIOSH [United States] Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Crystals solid.)

Odor	: Phenolic-like odour. Sweet, tarry odour
Taste	: Not available.
Molecular Weight	: 108.13 g/mole
Color	: White.
pH (1% soln/water)	: Not available.
Boiling Point	: 191.5°C (376.7°F)
Melting Point	: 30°C (86°F)

Section 9: Physical and Chemical Properties (Continued)

Critical Temperature	: 424°C (795.2°F)
Specific Gravity	: 1.047 (Water = 1)
Vapor Pressure	: Not applicable.
Vapor Density	: 3.72 (Air = 1)
Volatility	: Not available.
Odor Threshold	: 5 ppm
Water/Oil Dist. Coeff.	: The product is more soluble in oil; log (oil/water) = 2
Ionicity (in Water)	: Not available.
Dispersion Properties	: See solubility in water, diethyl ether.
Solubility	: Miscible in diethyl ether. Partially soluble in cold water. Soluble in 40 parts of water. Miscible in ethanol, chloroform. Soluble in carbon tetrachloride, vegetable oils, solution of fixed alkali hydroxides.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Heat, ignition sources, incompatible materials, light, air.

Incompatibility with various substances: Reactive with oxidizing agents.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity:

Reacts vigorously with oxidizing materials. Air and light sensitive. Hygroscopic; keep container tightly closed.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

Toxicity to Animals:

WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 121 mg/kg [Rat]. Acute dermal toxicity (LD50): 620 mg/kg [Rat]. Acute toxicity of the vapor (LC50): 179 mg/m³ 2 hours [Mouse].

Chronic Effects on Humans:

CARCINOGENIC EFFECTS: Classified POSSIBLE by IRIS. May cause damage to the following organs: kidneys, lungs, liver, skin, central nervous system (CNS).

Other Toxic Effects on Humans:

Very hazardous in case of skin contact (irritant), of ingestion, Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive), of inhalation (lung corrosive).

Special Remarks on Toxicity to Animals: Not Available.

Special Remarks on Chronic Effects on Humans:

May affect genetic material (mutagenic). IRIS Carcinogen Assessment: C (Possible human carcinogen).

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: Causes severe irritation and burns. Skin contact with cresols has resulted in erythema (skin reddening), blanching, blistering, skin peeling, burning sensation, localized anesthesia (numbness), and occasionally, ochronosis, a darkening of the skin. It is also rapidly absorbed through the skin. When absorbed through the skin it can produce systemic effects such as profound central nervous system (CNS) depression, seizures, methemoglobinemia, pulmonary edema, damage to internal organs, such as the lungs, pancreas, spleen, heart, and loss of kidney function and necrosis of the liver and kidneys. Serious or even fatal poisoning may result if large areas of the skin are wet with cresol and it is not removed immediately. Hypersensitivity may also occur. **Eyes:** Causes severe irritation and corneal burns, keratitis, and possibly, in severe cases, blindness. **Inhalation:** It is extremely destructive to the tissue of the mucous membrane and upper respiratory tract. Inhalation may result in spasm, inflammation, and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms may include burning sensation, coughing, wheezing, and laryngitis, shortness of breath, headache, and nausea. **Ingestion:** Can cause burning pain in mouth and throat. White necrotic lesions in mouth, esophagus, and stomach, abdominal pain, peritonitis, nausea, vomiting, bloody diarrhea, dyspnea, pallor, sweating, central nervous system disturbances (somnia, convulsions, headache, dizziness), tinnitus. Acute ingestion may lead to shock with cardiovascular disturbances (cardiac damage, weak irregular pulse, tachycardia, and hypotension), shallow respirations, cyanosis, and pallor, profound fall in body temperature, possible fleeting excitement and confusion followed by unconsciousness. Other symptoms of acute ingestion may include stentorous breathing.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation:

The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

Land transport (ADR-RID)

Proper shipping name : CRESOLS, SOLID

UN N° : 3455

H.I. nr : 68

ADR - Class : 6.1

Labelling - Transport : 6.1 : Toxic substances. 8 : Corrosive substance.

ADR - Group : II

Sea transport (IMDG) [English only]

Proper shipping name : CRESOLS, SOLID

UN N° : 3455

IMO-IMDG - Class or division: 6.1 : Toxic substances. 8 : Corrosive substance.

IMO-IMDG - Packing group: II

Section 14: Transport Information (Continued)

Air transport (ICAO-IATA) [English only]

Proper shipping name : CRESOLS, LIQUID

UN N° : 3455

IATA - Class or division : 6.1 : Toxic substances. 8 : Corrosive substance.

IATA - Packing group : II

Section 15: Other Regulatory Information

Federal and State Regulations:

Connecticut hazardous material survey: o-Cresol Illinois chemical safety act: o-Cresol New York release reporting list: o-Cresol Pennsylvania RTK: o-Cresol Massachusetts RTK: o-Cresol Massachusetts spill list: o-Cresol New Jersey: o-Cresol New Jersey spill list: o-Cresol Louisiana RTK reporting list: o-Cresol Louisiana spill reporting: o-Cresol California Director's List of Hazardous Substances: o-Cresol TSCA 8(b) inventory: o-Cresol.

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances. o-Cresol is listed on the Canadian Domestic Substances list. Canada: Disclosure at 1.0% according the the Ingredient Disclosure

Other Classifications:

WHMIS (Canada): CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS E: Corrosive solid.

DSCL (EEC): R24/25- Toxic in contact with skin and if swallowed. R34- Causes burns. S37/39- Wear suitable gloves and eye/face protection. S45- In case of accident or if you feel unwell, seek medical advice immediately.

HMIS (U.S.A.):

Health Hazard: 3

Fire Hazard: 2

Reactivity: 0

Personal Protection: j

National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 2

Reactivity: 0

Specific hazard:

Regd Office: Unit no 12, 1st Floor,
Neminath Industrial Estate No.6,
Navghar, Vasai (East), Palghar - 410210.
Maharashtra, INDIA.

Tel: +91 250 2390032 / 2390989 / 2390990
Email: sales@oxfordlabchem.com /
info@oxfordlabchem.com
Web: www.oxfordlabchem.com

Section 15: Other Regulatory Information (Continued)

Protective Equipment:

Gloves. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available.

Disclaimer:

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