

MATERIAL SAFETY DATA SHEET

Para-CRESOL 98% (For Synthesis) MSDS CAS: 106-44-5

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product

Product Name: Para-CRESOL

CAS#: 106-44-5

Synonym: 1,4-Dihydroxybenzene

Chemical Name: Para-CRESOL

Chemical Formula: C₇H₈O

Brand: OXFORD

Details Of The Supplier Of The Safety Data Sheet :

Company identification:

OXFORD LAB FINE CHEM LLP

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Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
{Para-}Cresol	106-44-5	100

Section 2: Composition and Information on Ingredients (Continued)

Toxicological Data on Ingredients:

Para-Cresol: ORAL (LD50): Acute: 207 mg/kg [Rat]. 344 mg/kg [Mouse]. DERMAL (LD50): Acute: 301 mg/kg [Rabbit]. VAPOR (LC50): Acute: 355.5 ppm 4 hour(s) [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects:

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

Potential Chronic Health Effects:

Very hazardous in case of skin contact (corrosive, irritant), of ingestion. Hazardous in case of skin contact (sensitizer, permeator), of eye contact (irritant), of inhalation. CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. 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. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

Skin Contact:

If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical got on the victim's exposed skin, such as the hands: Gently and thoroughly wash the contaminated skin with running

Section 4: First Aid Measures (Continued)

Water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Serious Skin Contact:

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

Inhalation:

Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

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:

Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

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

Auto-Ignition Temperature: 559°C (1038.2°F)

Flash Points: CLOSED CUP: 86°C (186.8°F).

Flammable Limits: LOWER: 1.1%

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

Fire Hazards in Presence of Various Substances: Not available.

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: Not available.

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. 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 container dry. 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 breathe dust. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment if you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes.

Storage:

Keep container dry. Keep in a cool place. Ground all equipment containing material. Corrosive materials should be stored in a separate safety storage cabinet or room.

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. Lab coat. 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 (ppm) TWA: 22 (mg/m³) Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid.

Odor : Characteristic. (Strong.)

Taste : Not available.

Molecular Weight : 108.13 g/mole

Color : White.

pH (1% soln/water) : Not available.

Boiling Point : 201.9°C (395.4°F)

Melting Point : 34.8°C (94.6°F)

Critical Temperature : Not available.

Specific Gravity : 1.035 (Water = 1)

Vapor Pressure : Not available.

Vapor Density : 3.72 (Air = 1)

Volatility : Not available.

Odor Threshold : 0.1 ppm

Water/Oil Dist. Coeff. : The product is equally soluble in oil and water; log (oil/water) = 0

Ionicity (in Water) : Not available.

Dispersion Properties : See solubility in water, methanol, and diethyl ether.

Solubility : Soluble in methanol, diethyl ether. Partially soluble in cold water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Not available.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: No.

Section 11: Toxicological Information

Routes of Entry: 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): 207 mg/kg [Rat]. Acute dermal toxicity (LD50): 301 mg/kg [Rabbit]. Acute toxicity of the vapor (LC50): 355.5 ppm 4 hour(s) [Rat].

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans:

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

Special Remarks on Toxicity to Animals: Not Available.

Special Remarks on Chronic Effects on Humans: Not Available.

Special Remarks on other Toxic Effects on Humans: Not Available.

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 more toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

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, SOLID

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:

Pennsylvania RTK: Para-Cresol Massachusetts RTK: Para-Cresol TSCA 8(b) inventory: Para-Cresol SARA 313 toxic chemical notification and release reporting: Para-Cresol CERCLA: Hazardous substances. Para-Cresol

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:

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

DSCL (EEC): R22- Harmful if swallowed. R23- Toxic by inhalation. R34- Causes burns. R43- May cause sensitization by skin contact.

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:

Section 15: Other Regulatory Information (Continued)

Protective Equipment:

Gloves. Lab coat. 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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