OXFORD LAB FINE CHEM LLP

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Oxford
Range of
Laboratory Chemicals

MATERIAL SAFETY DATA SHEET

4-CHLORO PHENOL 98%

(P-Chloro Phenol)
(For Synthesis)
MSDS CAS: 106-48-9

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product
Product Name: 4-Chloro phenol
CAS#: 106-48-9
Synonym: p-Chlorophenol
Chemical Name: 4-Chlorophenol
Chemical Formula: C_6H_5ClO

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,
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Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
{4-}Chlorophenol	106-48-9	100

Toxicological Data on Ingredients: 4-Chlorophenol: ORAL (LD50): Acute: 367 mg/kg [Mouse]. 670 mg/kg [Rat]. DERMAL (LD50): Acute: 1500 mg/kg [Rat]

Section 3: Hazards Identification

Potential Acute Health Effects:

Very hazardous in case of skin contact (irritant), of eye contact (irritant). Corrosive to eyes and skin. 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 2B (Possible for human.) by IARC.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/male, Development toxin [POSSIBLE]. The substance may be toxic to liver, brain, gastrointestinal tract, upper respiratory tract, 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.

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. WARM water MUST 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. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

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.

Section 4: First Aid Measures (Continued)

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 unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: **Not available.**

Section 5: Fire and Explosion Data

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

Auto-Ignition Temperature: **Not available.**

Flash Points: **CLOSED CUP: 115°C (239°F).**

Flammable Limits: **Not available.**

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

Fire Hazards in Presence of Various Substances: **Flammable in presence of open flames and sparks.**

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.**

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Section 6: Accidental Release Measures

Small Spill:
Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Large Spill:
Corrosive solid. Stop leak if without risk. Do not get water inside container. 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 locked up.. 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 ingest. Do not breathe dust. Never add water to this product. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

Storage:
Keep container tightly closed. Keep container in a cool, well-ventilated area.

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. 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. 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.

Section 8: Exposure Controls/Personal Protection (Continued)

Exposure Limits:

TWA: 0.5 (mg/m3) [Denmark] [1993] SKIN STEL: 1 (mg/m3) [Russia] [1993] SKIN TWA: 0.5 (mg/m3) [Sweden] [1999] SKIN Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid.

Odor	: Phenolic-like.
Taste	: Not Available.
Molecular Weight	: 128.56 g/mole
Color	: White to off-white
pH (1% soln/water)	: Not available.
Boiling Point	: 220°C (428°F)
Melting Point	: 44°C (111.2°F)
Critical Temperature	: Not available.
Specific Gravity	: Not available.
Vapor Pressure	: 0.3 kPa (@ 20°C)
Vapor Density	: 4.43 (Air = 1)
Volatility	: Not available.
Odor Threshold	: 30 ppm
Water/Oil Dist. Coeff.	: Not available.
Ionicity (in Water)	: Not available.
Dispersion Properties	: Dispersed in methanol, diethyl ether, n-octanol. Very slightly dispersed in cold water, hot water. See solubility in methanol, diethyl ether, n-octanol, acetone.
Solubility	: Soluble in methanol, diethyl ether, n-octanol, acetone. Very slightly soluble in cold water, hot water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

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Section 10: Stability and Reactivity Data (Continued)

Conditions of Instability: Not available.

Incompatibility with various substances: Not available.

Corrosivity: Not available.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry:
Absorbed through skin. Eye contact.

Toxicity to Animals:
Acute oral toxicity (LD50): 367 mg/kg [Mouse]. Acute dermal toxicity (LD50): 1500 mg/kg [Rat].

Chronic Effects on Humans:
CARCINOGENIC EFFECTS: Classified 2B (Possible for human.) by IARC. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/male, Development toxin [POSSIBLE]. May cause damage to the following organs: liver, brain, gastrointestinal tract, upper respiratory tract, central nervous system (CNS).

Other Toxic Effects on Humans:
Very hazardous in case of skin contact (irritant).

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 as toxic as the product itself.

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: CHLOROPHENOLS, SOLID
UN N°: 2020
H.I. nr: 60
ADR - Class: 6.1
Labelling - Transport: 6.1 : Toxic substances.
ADR – Group: III

Sea transport (IMDG) [English only]
Proper shipping name: CHLOROPHENOLS, SOLID
UN N°: 2020
IMO-IMDG - Class or division: 6.1 : Toxic substances.
IMO-IMDG - Packing group: III

Section 14: Transport Information (Continued)

Air transport (ICAO-IATA) [English only]
Proper shipping name: CHLOROPHENOLS, SOLID
UN N°: 2020
IATA - Class or division: 6.1 : Toxic substances.
IATA - Packing group: III

Section 15: Other Regulatory Information

Federal and State Regulations:
Pennsylvania RTK: 4-Chlorophenol Minnesota: 4-Chlorophenol Michigan critical material: 4-Chlorophenol Massachusetts RTK: 4-Chlorophenol New Jersey: 4-Chlorophenol New Jersey spill list: 4-Chlorophenol TSCA 8(b) inventory: 4-Chlorophenol TSCA 8(d) H and S data reporting: 4-Chlorophenol: June 1999.

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.

Other Classifications:
WHMIS (Canada): CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). CLASS D-2A: Material causing other toxic effects (VERY TOXIC).
DSCL (EEC): R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.

HMIS (U.S.A.):
Health Hazard: 2
Fire Hazard: 1
Reactivity: 0
Personal Protection: h

National Fire Protection Association (U.S.A.):
Health: 3
Flammability: 1
Reactivity: 0
Specific hazard:

Protective Equipment:
Gloves. Synthetic apron. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

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Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available.

Disclaimer:

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