

MATERIAL SAFETY DATA SHEET

Para-DICHLOROBENZENE 99% **(For Synthesis)** **(P.D.C.B) (1,4 Dichlorobenzene)** **MSDS CAS: 106-46-7**

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product

Product Name: Para-DICHLOROBENZENE

CAS#: 106-46-7

Synonym: 1,4-Dichlorobenzene

Chemical Name: Para-Dichlorobenzene

Chemical Formula: C₆H₄Cl₂

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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Tel: 91-250-2390989
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Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Para-Dichlorobenzene	106-46-7	100

Toxicological Data on Ingredients: Para-Dichlorobenzene: ORAL (LD50): Acute: 500 mg/kg [Rat].
DERMAL (LD50): Acute: 6000 mg/kg [Rabbit].

Section 3: Hazards Identification

Potential Acute Health Effects:

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

Very hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation. **CARCINOGENIC EFFECTS:** Classified A3 (Proven for animal.) by ACGIH. Classified 2 (Reasonably anticipated.) by NTP. **MUTAGENIC EFFECTS:** Not available. **TERATOGENIC EFFECTS:** Not available. **DEVELOPMENTAL TOXICITY:** Not available. The substance is toxic to kidneys, lungs, liver, and mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

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:

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. 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: Not available.

Section 4: First Aid Measures (Continued)

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: 413°C (775.4°F)

Flash Points: CLOSED CUP: 65.56°C (150°F). (TAG)

Flammable Limits: LOWER: 2.5% UPPER: 16%

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

Fire Hazards in Presence of Various Substances:

Slightly flammable to flammable in presence of oxidizing materials.

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.

Slightly explosive to explosive in presence of oxidizing materials.

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. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. 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 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. 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.

Storage:

Keep container dry. Keep in a cool place. Ground all equipment containing material. Carcinogenic, teratogenic or mutagenic materials should be stored in a separate locked 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 respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Section 8: Exposure Controls/Personal Protection (Continued)

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor 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: 75 CEIL: 110 (ppm) TWA: 450 CEIL: 675 (mg/m³) Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid.

Odor : Not available.

Taste : Not available.

Molecular Weight : 147 g/mole

Color : Not available.

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

Boiling Point : 174.12°C (345.4°F)

Melting Point : 53.75°C (128.8°F)

Critical Temperature : Not applicable.

Specific Gravity : 1.46 (Water = 1)

Vapor Pressure : Not Applicable.

Vapor Density : 5.08 (Air = 1)

Volatility : Not available.

Odor Threshold : 15 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, diethyl ether, and acetone.

Solubility : Soluble in methanol, diethyl ether, acetone. Very slightly 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:

Acute oral toxicity (LD50): 500 mg/kg [Rat]. Acute dermal toxicity (LD50): 6000 mg/kg [Rabbit].

Chronic Effects on Humans:

CARCINOGENIC EFFECTS: Classified A3 (Proven for animal.) by ACGIH. Classified 2 (Reasonably anticipated.) by NTP. The substance is toxic to kidneys, lungs, liver, and mucous membranes.

Other Toxic Effects on Humans:

Very hazardous in case of skin contact (irritant, permeator), of ingestion, 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: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

UN N°: 3077

H.I. nr: 90

ADR - Class: 9

Labelling - Transport: 9 : Miscellaneous dangerous substances and articles.

ADR - Group: III

Section 14: Transport Information (Continued)

Sea transport (IMDG) [English only]

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

UN N°: 3077

IMO-IMDG - Class or division: 9 : Miscellaneous dangerous substances and articles.

IMO-IMDG - Packing group: III

Air transport (ICAO-IATA) [English only]

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

UN N°: 3077

IATA - Class or division: 9 : Miscellaneous dangerous substances and articles.

IATA - Packing group: III

Section 15: Other Regulatory Information

Federal and State Regulations:

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: 1,4-Dichlorobenzene
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: 1,4-Dichlorobenzene
Pennsylvania RTK: 1,4-Dichlorobenzene
Massachusetts RTK: 1,4-Dichlorobenzene
TSCA 8(b) inventory: 1,4-Dichlorobenzene
SARA 313 toxic chemical notification and release reporting: 1,4-Dichlorobenzene
CERCLA: Hazardous substances.: Para-Dichlorobenzene

Other Regulations:

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

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): R38- Irritating to skin. R41- Risk of serious damage to eyes. R45- May cause cancer.

OXFORD LAB FINE CHEM LLP

ISO 9001-2008 Certified Company

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Range of
Laboratory Chemicals

Section 15: Other Regulatory Information (Continued)

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 2

Reactivity: 0

Personal Protection: E

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

Health: 2

Flammability: 2

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves. Lab coat. 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.

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