

## **MATERIAL SAFETY DATA SHEET**

### **PARA CHLORO NITRO BENZENE 99% (PNCB) (For Synthesis) (1-Chloro-4-Nitobenzene) MSDS CAS: 100-00-5**

#### **Section 1: Chemical Product and Company Identification**

##### **Section 1: Chemical Product**

**Product Name:** PARA CHLORO NITRO BENZENE

**CAS#:** 100-00-5

**Synonym:** p-Chloronitrobenzene, PNCB, p-Nitro Chlorobenene, 1-Chloro-4-Nitobenzene.

**Chemical Name:** Not Available.

**Chemical Formula:** C<sub>6</sub>H<sub>4</sub>ClNO<sub>2</sub>

**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	Hazardous
PARA CHLORO NITRO BENZENE	100-00-5	100	Yes

## Section 3: Hazards Identification

### Risk advice to man and the environment:

Toxic by inhalation, in contact with skin and if swallowed. Limited evidence of a carcinogenic effect. Harmful danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. Possible risk of irreversible effects. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## Section 4: First Aid Measures

### General advice:

Consult a physician. Show this safety data sheet to the doctor in attendance.

### 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.

### If swallowed:

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

## Section 5: Fire and Explosion Data

### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### Special protective equipment for fire- fighters:

Wear self contained breathing apparatus for fire fighting if necessary.

## Section 6: Accidental Release Measures

### Personal precautions:

Wear respiratory protection. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

## Section 6: Accidental Release Measures (Continued)

### 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 for cleaning up:

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

## Section 7: Handling and Storage

### Handling:

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Storage: Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

## Section 8: Exposure Controls/Personal Protection

### Personal protective equipment

#### Respiratory protection:

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (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:

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves.

Eye protection : Face shield and safety glasses.

Skin and body protection: Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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

## Section 9: Physical and Chemical Properties

Appearance Form	: Crystalline.
Colour	: Light yellow.
pH	: No Data Available.
Melting point	: 80-83 °C - lit.
Molecular Weight	: 157,55 g/mole.
Boiling point	: 242 °C - lit.
Flash point	: 124 °C - closed cup
Ignition temperature	: 510 °C
Lower explosion limit	: No Data Available.
Upper explosion limit	: No Data Available.
Density	: 1,298 g/mL at 25 °C
Water solubility	: Insoluble
Partition coefficient	: n-octanol/water
Log Pow	: 2,6

## Section 10: Stability and Reactivity Data

**Storage stability:** Stable under recommended storage conditions.

**Materials to avoid:** Strong oxidizing agents, Strong bases.

**Hazardous decomposition products:**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas.

## Section 11: Toxicological Information

**Acute toxicity**

LD50 Oral - rat - 420 mg/kg Remarks: Behavioral: Somnolence (general depressed activity). Liver: Fatty liver degeneration. Blood: Methemoglobinemia-Carboxyhemoglobin. LD50 Dermal - rabbit - 3.040 mg/kg

**Irritation and corrosion :**

Skin - rabbit - Mild skin irritation.

Eyes - rabbit - No eye irritation.

## Section 11: Toxicological Information (Continued)

**Sensitisation** : No data available.

### **Chronic exposure:**

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (1-Chloro-4-nitrobenzene)  
Laboratory experiments have shown mutagenic effects.

**Signs and Symptoms of Exposure:** May cause cyanosis.

### **Potential Health Effects**

**Inhalation** Toxic if inhaled. May cause respiratory tract irritation.

**Skin** Toxic if absorbed through skin. May cause skin irritation.

**Eyes** May cause eye irritation.

**Ingestion** Toxic if swallowed.

## Section 12: Ecological Information

### **Elimination information (persistence and degradability):**

Biodegradability Bioaccumulation Oncorhynchus mykiss (rainbow trout) - 36 d Bioconcentration factor (BCF): 108

### **Ecotoxicity effects:**

Toxicity to daphnia and other aquatic invertebrates. EC50 - Daphnia magna (Water flea) - 2,7 mg/l - 48 h

Toxicity to algae Growth inhibition EC50 - Chlorella pyrenoidosa - 4,9 mg/l - 96 h.

**Further information on ecology:** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. No data available.

## Section 13: Disposal Considerations

### **Product:**

Observe all federal, state, and local environmental regulations. 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.

## Section 14: Transport Information

### Land transport (ADR-RID)

Proper shipping name : CHLORONITROBENZENES, SOLID.

UN N° : 1578

H.I. nr : 60

ADR – Class : 6.1

Labelling – Transport : 6.1 : Toxic substances.

ADR – Group : II

### Sea transport (IMDG) [English only]

Proper shipping name : CHLORONITROBENZENES, SOLID.

UN N° : 1578

IMO-IMDG - Class or division : 6.1 : Toxic substances.

IMO-IMDG - Packing group :II

### Air transport (ICAO-IATA) [English only]

Proper shipping name : CHLORONITROBENZENES, SOLID.

UN N° : 1578

IATA - Class or division : 6.1 : Toxic substances.

IATA - Packing group : II

## Section 15: Other Regulatory Information

### Labelling according to EC Directives

#### R-phrase(s)

R22 Harmful if swallowed.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### S-phrase(s)

S22 Do not breathe dust.

S24/25 Avoid contact with skin and eyes.

S60 This material and its container must be disposed of as hazardous waste.

S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

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info@oxfordlabchem.com  
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## **Section 16 - Additional Information**

**References:** Not available.

**Other Special Considerations:** Not available.

### ***Disclaimer:***

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