OXFORD LAB FINE CHEM LLP

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

Oxford
Range of
Laboratory Chemicals

MATERIAL SAFETY DATA SHEET

ORTHO CHLORO NITRO BENZENE (ONCB)

(1-Chloro-2-Nitrobenzene)

MSDS CAS: 88-73-3

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product

Product Name: ORTHO CHLORO NITRO BENZENE
CAS#: 88-73-3
Synonym: o-Chloronitrobenzene, o-nitro chlorobenzene, ONCB
Chemical Name: 1-Chloro-2-Nitrobenzene
Chemical Formula: $C_6H_4CINO_2$

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
Tel/Fax: 91-250-2390032

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight	Hazardous
ORTHO CHLORO NITRO BENZENE	88-73-3	100	Yes

Section 3: Hazards Identification

Risk advice to man and the environment:
Harmful if swallowed. Toxic in contact with skin. Harmful 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:
Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

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 : **Safety glasses.**

Section 8: Exposure Controls/Personal Protection (Continued)

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	**: Solidified mass or fragments**
Colour	**: Light yellow.**

Safety data

pH	**: 6 at 0,4 g/l**
Melting point	**: 31 - 33 °C**
Molecular Weight	**: 157,55 g/mole**
Boiling point	**: 246 °C**
Flash point	**: 126 °C - closed cup**
Ignition temperature	**: 470 °C**
Lower explosion limit	**: 1,4 %(V)**
Upper explosion limit	**: 8,7 %(V)**
Vapour pressure	**: 0,43 hPa at 50 °C 0,15 hPa at 37,7 °C 0,05 hPa at 25 °C**
Density	**: 1,348 g/mL at 25 °C**
Water solubility	**: No data available**
Partition coefficient	**: N-octanol/water**
log Pow	**: 2,24**

Section 10: Stability and Reactivity Data

Storage stability:
Stable under recommended storage conditions.

Materials to avoid:
Strong bases, Strong oxidizing agents.

Hazardous decomposition products:
Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas.

Section 11: Toxicological Information

Acute toxicity
LD50 Oral - rat - 268 mg/kg
LD50 Dermal - rabbit - 400 mg/kg

Irritation and corrosion : No data available.

Sensitisation : No data available.

Chronic exposure:
Carcinogenicity - rat - Oral
Tumorigenic : Neoplastic by RTECS criteria. Gastrointestinal: Tumors.
Endocrine: Tumors. Carcinogenicity - mouse - Oral
Tumorigenic: Carcinogenic by RTECS criteria. Liver: Tumors.
IARC: Group 3 - Not classifiable as to carcinogenicity to humans (1-Chloro-2-nitrobenzene)
Reproductive toxicity - rat - Inhalation
Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count).

Signs and Symptoms of Exposure:
Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 11: Toxicological Information (Continued)

Potential Health Effects

Inhalation **May be harmful if inhaled. May cause respiratory tract irritation.**

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

Eyes **May cause eye irritation.**

Ingestion **Harmful if swallowed.**

Section 12: Ecological Information

Elimination information (persistence and degradability):

Bioaccumulation Oncorhynchus mykiss (rainbow trout) - 36 d
Bioconcentration factor (BCF): 176

Ecotoxicity effects:

Toxicity to daphnia and other aquatic invertebrates.
EC50 - Daphnia magna (Water flea) - 3,2 mg/l - 48 h

Further information on ecology:

Harmful 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.
R24 Toxic in contact with skin.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s):
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available.

Disclaimer:

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