OXFORD LAB FINE CHEM LLP
ISO 9001-2008 Certified Company

Regd Office: Unit no 12, 1st Floor,
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Oxford
Range of
Laboratory Chemicals

MATERIAL SAFETY DATA SHEET

meta-DINITROBENZENE 98%
(For Synthesis)
(M.D.N.B.)
MSDS CAS: 99-65-0

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product
Product Name: meta-DINITROBENZENE
CAS NO:99-65-0
Synonym:1,3-Dinitrobenzene
Chemical Name:meta-Dinitrobenzene
Chemical Formula:$C_6H_4N_2O_4$

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 NO	% by Weight
meta-Dinitrobenzene	99-65-0	≤100%

Toxicological Data on Ingredients:meta-Dinitrobenzene ORAL (LD50): Acute: 59.5 mg/kg [Rat]. 74.7 mg/kg [Mouse]. 42 mg/ kg [Bird].

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Section 3: Hazards Identification

Potential Acute Health Effects:
Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation (lung irritant). Hazardous in case of skin contact (permeator). Slightly hazardous in case of skin contact (corrosive). Severe over-exposure can result in 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: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. 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:
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.

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. Seek 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.**

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Section 5: Fire and Explosion Data

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

Auto-Ignition Temperature: Not Available.

Flash Points: Not Available.

Flammable Limits: Not Available.

Products of Combustion:
These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...).

Fire Hazards in Presence of Various Substances:
Slightly flammable to flammable in presence of oxidizing materials, of reducing materials, of combustible materials, of organic materials, of alkalis.

Explosion Hazards in Presence of Various Substances:
Explosive in presence of shocks. Slightly explosive to explosive in presence of open flames and sparks, of heat, of oxidizing materials, of reducing materials, of alkalis.

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:
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.

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Section 7: Handling and Storage

Precautions:

Keep locked up Keep container dry. Keep away from heat. Keep away from sources of ignition. Keep away from direct sunlight or strong incandescent light. 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 Take precautionary measures against electrostatic discharges. Avoid shock and friction. 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. Keep container tightly closed. Keep in a cool, well-ventilated place. Highly toxic or infectious 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. 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.

Exposure Limits:

TWA: 0.15 CEIL: 0.5 (ppm) TWA: 1 CEIL: 3 (mg/m3)Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance	**: Solid.**
Odor	**: slight.**
Taste	**: Not available.**
Molecular Weight	**: 168.11 g/mole**
Color	**: Yellow**
pH (1% soln/water)	**: Not available.**
Boiling Point	**: 297 °C**
Flash point	: **149 °C**
Melting Point	**: 87 – 90 °C**
Critical Temperature	**: Not available.**
Vapor Pressure	**: Not available.**
Density	**: 1.58 g/cm^3 at 18 °C**
Volatility	**: Not available.**
Odor Threshold	**: Not available.**
Water/Oil Dist. Coeff.	**: The product is equally soluble in oil and water;**
log(oil/water) = 0	
Ionicity (in Water)	**: Not available.**
Dispersion Properties	**: Not available.**
Solubility	**: Water: Slightly soluble in 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:
The product may undergo hazardous decomposition, condensation or polymerization, it may react violently with water to emit toxic gases or it may become self-reactive under conditions of shock or increase in temperature or pressure.

Corrosivity: **Non-corrosive in presence of glass.**

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Section 10: Stability and Reactivity Data (Continued)

Special Remarks on Reactivity: Not available.
Special Remarks on Corrosivity: Not available.
Polymerization: No.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 42 mg/kg [Bird].

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans:
Very hazardous in case of skin contact (irritant), of ingestion, of inhalation (lung irritant). Hazardous in case of skin contact (permeator). Slightly hazardous in case of skin contact (corrosive).

Special Remarks on Toxicity to Animals: Not Available.

Special Remarks on Chronic Effects on Humans: Testicular damage in animal.

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.

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Section 13: Disposal Considerations

Regional waste regulation : **Disposal must be done according to official regulations**.

Waste treatment methods : **Dispose of contents/container in accordance with licensed collector's sorting instructions.**

Sewage disposal recommendations : **Disposal must be done according to official regulations.**

Product/Packaging disposal recommendations : **Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Disposal must be done according to official regulations.**

Additional information : **Do not re-use empty containers.**

Ecological waste information : **Hazardous waste due to toxicity**

Section 14: Transport Information

Land transport (ADR-RID)

Proper shipping name : **DINITROBENZENES, SOLID**
UN NO : **3443**
H.I. nr : **60**
ADR – Class : **6.1**
Labelling – Transport : **UN 3443 DINITROBENZENES, SOLID, 6.1, II, (D/E), ENVIRONMENTALLY HAZARDOUS**
ADR – Group : **II**

Sea transport (IMDG) [English only]

Proper shipping name : **DINITROBENZENES, SOLID**
UN N° : **3443**
IMO-IMDG - Class or division : **UN 3443 DINITROBENZENES, SOLID, 6.1, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS**
IMO-IMDG - Packing group: II

Air transport (ICAO-IATA) [English only]

Proper shipping name : **DINITROBENZENES, SOLID**
UN N° : **3443**
IATA - Class or division : **UN 3443 Dinitrobenzenes, solid, 6.1, II, ENVIRONMENTALLY HAZARDOUS**
IATA - Packing group : **II**

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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: meta-Dinitrobenzene California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (male) which would require a warning under the statute: meta-Dinitrobenzene California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statutemeta-Dinitrobenzene Rhode Island RTK hazardous substances: meta-Dinitrobenzene Pennsylvania RTK: meta-Dinitrobenzene Minnesota: meta-Dinitrobenzene Massachusetts RTK: meta-Dinitrobenzene New Jersey: meta-Dinitrobenzene TSCA 8(b) inventorymeta-Dinitrobenzene SARA 313 toxic chemical notification and release reporting: meta-Dinitrobenzene.

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-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS F: Dangerously reactive material.
DSCL (EEC): R37/38- Irritating to respiratory system and skin. R41- Risk of serious damage to eyes.

HMIS (U.S.A.):

Health Hazard: 3
Fire Hazard: 1
Reactivity: 2
Personal Protection: E

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

Health: 3
Flammability:1
Reactivity: 2
Specific hazard:

Protective Equipment:

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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.

Disclaimer:

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The information contained herein in good faith but makes no representations as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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