

## **MATERIAL SAFETY DATA SHEET**

### **ORTHO-TOLIDINE 98% AR** **(3,3'-Dimethyl Benzidine)** **MSDS CAS : 119-93-7**

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

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

**Product Name : ORTHO-TOLIDINE 98% AR**

**CAS#: 119-93-7**

**Synonym: 3,3'-Dimethylbenzidine; 4,4'-Bianisidine**

**Chemical Name: Not available.**

**Chemical Formula: C<sub>14</sub>H<sub>16</sub>N<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,  
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
ORTHO-TOLIDINE 98% AR	119-93-7	100%

## Section 3: Hazards Identification

### Classification of the substance or mixture

Classification according to Regulation (EC) No 1999/45

Classification : Carc. Cat. 2; R45  
C; R34  
Xi; R37

### Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Carcinogenicity - Category 1B - Danger (CLP : Carc. 1B) H350  
Specific Target Organ Toxicity - Single exposure - Respiratory tract  
irritation -  
Category 3 - Warning (CLP : STOT SE 3) H335  
Skin corrosion - Category 1B - Danger (CLP : Skin Corr. 1B) H314

Other hazards : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

## Section 4: First Aid Measures

### Description of first aid measures

#### **Inhalation**

Call a POISON CENTER or doctor if you feel unwell. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor.

#### **Skin contact**

Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Immediately call a POISON CENTER or doctor.

#### **Eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

#### **Ingestion :**

Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.

### Most important symptoms and effects, both acute and delayed

Symptoms relating to use : May cause cancer. Causes severe skin burns and eye damage. May cause respiratory irritation.

### Indication of any immediate medical attention and special treatment needed

General information : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

## Section 5: Fire and Explosion Data

### Extinguishing media

- Suitable extinguishing media** : Foam. Dry powder. Carbon dioxide. Water spray. Sand.  
**Unsuitable extinguishing media** : Do not use a heavy water stream.  
**Surrounding fires** : Use water spray or fog for cooling exposed containers.

### Special hazards arising from the substance or mixture

- Hazardous combustion products** : Under fire conditions, hazardous fumes will be present.  
Thermal decomposition generates : Corrosive vapours.

### Advice for fire-fighters

- Protection against fire** : Do not enter fire area without proper protective equipment,  
Including respiratory protection.  
**Special procedures** : Exercise caution when fighting any chemical fire. Avoid (reject)  
Fire-fighting water to enter environment.

## Section 6: Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

- For emergency responders** : Equip cleanup crew with proper protection.  
Ventilate area.  
**Special precautions** : Do not allow water (or moist air) contact with this material.  
**For non-emergency personnel** : Evacuate unnecessary personnel.  
**Environmental precautions**  
**Environmental precautions** : Prevent entry to sewers and public waters. Notify authorities if  
product enters sewers or public waters.

### Methods and materials for containment and cleaning up

- Clean up methods** : On land, sweep or shovel into suitable containers. Minimize  
generation of dust. Store away from other materials.

## Section 7: Handling and Storage

### Precautions for safe handling

**Handling:** Use only outdoors or in a well-ventilated area. Wash contaminated clothing before reuse. Wash thoroughly after handling. Obtain special instructions before use. Do not breathe dust, fume, gas, mist, vapours, spray.

**Technical protective measures:** Provide good ventilation in process area to prevent formation of Vapor.

## Section 7: Handling and Storage (Continued)

Special precautions	: Avoid breathing dust, fume, gas, mist, vapours, spray.
<u>Conditions for safe storage, including any incompatibilities</u>	
Storage	: Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.
Storage regulation	: Comply with applicable regulations.
Storage - away from	: Strong bases. Strong acids. Sources of ignition. Direct sunlight.
Specific end uses	
Specific end use(s)	: None.

## Section 8: Exposure Controls/Personal Protection

Personal protection	: Avoid all unnecessary exposure.
• Respiratory protection	: Wear approved mask.
• Hand protection	: Wear protective gloves.
• Skin protection	: Wear suitable protective clothing.
• Eye protection	: Chemical goggles or safety glasses.
• Others	: When using, do not eat, drink or smoke.
Control parameters	
Occupational Exposure Limits	: No data available.

## Section 9: Physical and Chemical Properties

### Information on basic physical and chemical properties

Physical state at 20 °C	: Solid
Color	: White to light brown
Odor	: Amine like
Odor threshold	: No data available.
pH value	: Not applicable.
Melting point [°C]	: 128 - 131 °C.
Decomposition point [°C]	: N/A
Critical temperature [°C]	: N/A
Auto-ignition temperature [°C]	: 4800C

## Section 9: Physical and Chemical Properties (Continued)

Flammability (solid, gas)	: N/A
Flash point [°C]	: No data available.
Boiling point [°C]	: 100°C
Initial boiling point [°C]	: 200 °C
Final boiling point [°C]	: N/A
Evaporation rate	: N/A
Vapour pressure [20°C]	: N/A
Vapour pressure mm/Hg	: 0.2 mbar @ 200C
Vapour density	: N/A
Density [g/cm3]	: 3,7
Relative density, gas (air=1)	: 1004
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: N/A
Solubility in water	: Slightly soluble in
Log Pow octanol / water at 20°C	: N/A.
Solubility	: No data available.
Viscosity at 40°C [mm2/s]	: N/A
Molecular Weight	: 212.30

### Other information

Explosive properties	: N/A
Explosion limits - upper [%]	: 7.50%
Explosion limits - lower [%]	: 1.50%
Oxidizing properties	: No data available.

## Section 10: Stability and Reactivity Data

**Reactivity:** Not established.

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

### Possibility of hazardous reactions

**Hazardous reactions :** Not established.

**Conditions to avoid :** Direct sunlight. Extremely high or low temperatures, Moisture

## Section 10: Stability and Reactivity Data (Continued)

### Incompatible materials

Materials to avoid : Strong acids. Strong bases.

Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide. Thermal decomposition generates: Corrosive vapours.

## Section 11: Toxicological Information

### Information on toxicological effects

#### Acute toxicity

• Inhalation	: Based on available data, the classification criteria are not met.
• Dermal	: Based on available data, the classification criteria are not met.
• Ingestion	: Based on available data, the classification criteria are not met.
Corrosion	: Causes severe skin burns and eye damage.
Irritation	: May cause respiratory irritation.
Sensitization	: Based on available data, the classification criteria are not met.
Mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: May cause cancer.
Toxic for reproduction	: Based on available data, the classification criteria are not met.
STOT-single exposure	: Based on available data, the classification criteria are not met.
STOT-repeated exposure	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.

## Section 12: Ecological Information

**Toxicity information :** The product has been not fully tested. The calculated risk has been done under the requirements of the EU regulations.

**Persistence - degradability :** Biodegradable.

**Bio accumulative potential :** Not established.

**Mobility in soil :** Not established.

## Section 12: Ecological Information (Continued)

**Results of PBT and vPvB assessment:** The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

### Other adverse effects

**Environmental precautions:** Avoid release to the environment.

## Section 13: Disposal Considerations

### Waste treatment methods

**General:** Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

## 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

### 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

**Safety, health and environmental regulations/legislation specific for the substance or mixture:**  
Ensure all national/local regulations are observed.

**REACH Restrictions - Annex XVII:** The components of this product are not subject to restrictions.

**REACH Authorization - Annex XIV:** The components of this product are not subject to authorization.

### **Chemical Safety Assessment**

**Chemical Safety Assessment:** It has not been carried out.

## Section 16 - Additional Information

**References:** Not available.

**Other Special Considerations:** Not available.

### ***Disclaimer:***

\*\*\*\*\*

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.

Oxford Lab Fine Chem LLP makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, Oxford Lab Fine Chem LLP will not be responsible for damages resulting from use of or reliance upon this information.