

# OXFORD LAB FINE CHEM LLP

ISO 9001-2008 Certified Company

**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**

### **RUTHENIUM RED 99% (For Microscopy)** **MSDS CAS: 11103-72-3**

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

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

**Product Name:** RUTHENIUM RED 99% (For Microscopy)

**CAS#:** 11103-72-3

**Chemical Name:** RUTHENIUM RED 99% (For Microscopy)

**Chemical Formula:** Cl<sub>6</sub>H<sub>42</sub>N<sub>14</sub>O<sub>2</sub>Ru<sub>3.4</sub>H<sub>2</sub>O

**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**

**Substance / Preparation:** RUTHENIUM RED 99%

**CAS No :** 11103-72-3

**Substance.**

**Contains no other components or impurities which will influence the classification of the product.**

## Section 3: Hazards Identification

**Classification of the substance or mixture**

**Classification EC 67/548 or EC 1999/45**

**Classification** : Not classified.

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

Not classified.

**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:** Assure fresh air breathing. Allow the victim to rest.

**Skin contact:** Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

**Eye contact:** Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

**Ingestion:** Obtain emergency medical attention. Rinse mouth. Do NOT induce vomiting.

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

**Symptoms relating to use:** Not expected to present a significant hazard under anticipated conditions of normal use.

### 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:

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

### Special hazards arising from the substance or mixture:

<b>Hazardous combustion products</b>	<b>: Under fire conditions, hazardous fumes will be present.</b>
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### Advice for fire-fighters:

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

## Section 6: Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures:

<b>For emergency responders</b>	<b>: Equip cleanup crew with proper protection.</b>
	<b>: Ventilate area.</b>

**For non-emergency personnel** :Evacuate unnecessary personnel.

### Environmental precautions

<b>Environmental precautions</b> enters sewers or public waters.	<b>: Prevent entry to sewers and public waters. Notify authorities if product</b>
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### Methods and material for containment and cleaning up:

<b>Clean up methods</b> of dust. Store away from other materials.	<b>: On land, sweep or shovel into suitable containers. Minimize generation</b>
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## Section 7: Handling and Storage

### Precautions for safe handling

**Handling :** Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work.

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

**Conditions for safe storage, including any incompatibilities:**

**Storage :** Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.

**Storage - away from :** Strong bases. Strong acids. Sources of ignition. Direct sunlight.

## Section 8: Exposure Controls/Personal Protection

### Exposure controls:

**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

Physical state and appearance	: Solid
Odor	: Odorless.
Taste	: Not available.
Molecular Weight	: 858.42
Color	: Brownish red powder
pH (1% soln/water)	: Not available.

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

<b>Boiling Point</b>	<b>: Not available.</b>
<b>Melting Point</b>	<b>: Not available.</b>
<b>Critical Temperature</b>	<b>: Not available.</b>
<b>Specific Gravity</b>	<b>: Not available.</b>
<b>Vapor Pressure</b>	<b>: Not applicable.</b>
<b>Vapor Density</b>	<b>: Not available.</b>
<b>Volatility</b>	<b>: Not available.</b>
<b>Odor Threshold</b>	<b>: Not available.</b>
<b>Water/Oil Dist. Coeff.</b>	<b>: Not available.</b>
<b>Ionicity (in Water)</b>	<b>: Not available.</b>
<b>Dispersion Properties</b>	<b>: Not available.</b>
<b>Solubility</b>	<b>: Not available.</b>

## Section 10: Stability and Reactivity Data

**Stability:** Stable under recommended storage conditions.

**Instability Temperature:** Not available.

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

**Incompatibility with various substances:** Not available.

**Materials to avoid:** Strong acids. Strong bases.

**Special Remarks on Reactivity:** Not available.

**Special Remarks on Corrosivity:** Not available.

**Hazardous decomposition products:** Fumes. Carbon monoxide. Carbon dioxide.

## 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:** Based on available data, the classification criteria are not met.  
**Sensitization:** Based on available data, the classification criteria are not met.  
**Mutagenicity:** Based on available data, the classification criteria are not met.  
**Carcinogenicity:** Based on available data, the classification criteria are not met.  
**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:** Not established.

**BOD5 and COD:** Not available.

**Persistence - degradability:** Biodegradable.

**Bioaccumulative potential:** Not established.

**Toxicity of the Products of Biodegradation:** Not available.

**Special Remarks on the Products of Biodegradation:** Not available.

**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.

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

## Section 13: Disposal Considerations

**Waste Disposal:** Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.

## Section 14: Transport Information

### Land transport (ADR-RID)

**General information :** Not regulated.

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

**General information :** Not regulated.

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

**General information :** Not regulated.

## Section 15: Other Regulatory Information

**Safety, health and environmental regulations/legislation specific for the substance or mixture:**

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

**Chemical Safety Assessment:**

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

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## Section 16 - Additional Information

**References:** Not available.

**Other Special Considerations:** Not available.

### ***Disclaimer:***

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