

## **MATERIAL SAFETY DATA SHEET**

### **INDIUM NITRATE 99.9% (Hydrate)**

**MSDS CAS: 207398-97-8**

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

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

**Product Name: INDIUM NITRATE (Hydrate)**

**CAS#: 207398-97-8**

**Synonym: Not Available.**

**Chemical Name: Indium Nitrate (Hydrate)**

**Chemical Formula:  $\text{InN}_3\text{O}_9 \cdot x\text{H}_2\text{O}$**

**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**

##### **Composition:**

Name	CAS #	% by Weight
Indium Nitrate (Hydrate)	207398-97-8	100

## Section 3: Hazards Identification

### Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Oxidizing solids (Category 2)

Acute toxicity, Oral (Category 4)

Acute toxicity, Inhalation (Category 4)

Acute toxicity, Dermal (Category 4)

#### Classification according to EU Directives 67/548/EEC or 1999/45/EC

Contact with combustible material may cause fire. Harmful by inhalation, in contact with skin and if swallowed.

### Label elements

#### Labelling according Regulation (EC) No 1272/2008 [CLP]

#### Hazard statement(s):

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H332 Harmful if inhaled.

#### Precautionary statement(s)

P220 Keep/Store away from clothing/ combustible materials.

P280 Wear protective gloves/ protective clothing.

Supplemental Hazard none

#### According to European Directive 67/548/EEC as amended.

#### R-phrase(s):

R 8 Contact with combustible material may cause fire.

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

#### S-phrase(s):

S17 Keep away from combustible material.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S27 Take off immediately all contaminated clothing.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

Other hazards: None

## Section 4: First Aid Measures

### Description of 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. Consult a physician.

**In case of eye contact:** Flush eyes with water as a precaution.

### If swallowed:

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

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

Cough, Shortness of breath, Headache, Nausea, Vomiting, to the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Indication of any immediate medical attention and special treatment needed:** No data available

## Section 5: Fire and Explosion Data

### Extinguishing media

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special hazards arising from the substance or mixture:** Indium/indium oxides

**Advice for firefighters:** Wear self contained breathing apparatus for fire fighting if necessary.

**Further information:** Use water spray to cool unopened containers.

## Section 6: Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

## Section 6: Accidental Release Measures (Continued)

**Environmental precautions:** Do not let product enter drains.

### **Methods and materials for containment and cleaning up**

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

## Section 7: Handling and Storage

### **Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition.

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

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

**Specific end use(s):** No data available.

## Section 8: Exposure Controls/Personal Protection

### **Control parameters**

#### **Components with workplace control parameters**

#### **Exposure controls**

**Appropriate engineering controls:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### **Personal protective equipment**

**Eye/face protection:** Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### **Skin protection:**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

## Section 8: Exposure Controls/Personal Protection (Continued)

### Body Protection:

Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection:

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (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).

## Section 9: Physical and Chemical Properties

<b>Appearance Form</b>	: Crystals with lumps
<b>Odour</b>	: No data available
<b>Odour Threshold</b>	: No data available
<b>pH</b>	: No data available
<b>Molecular Weight</b>	: 300.83 g/mole
<b>Melting point</b>	: No data available
<b>Boiling range</b>	: No data available
<b>Flash point</b>	: Not applicable
<b>Evaporation rate</b>	: No data available
<b>Flammability (solid, gas)</b>	: No data available
<b>Explosive limits</b>	: No data available
<b>Vapour pressure</b>	: No data available
<b>Vapour density</b>	: No data available
<b>Relative density</b>	: No data available
<b>Water solubility</b>	: No data available
<b>Partition coefficient: noctanol/water:</b>	No data available
<b>Auto-ignition temperature</b>	: No data available
<b>Decomposition temperature</b>	: No data available
<b>Viscosity</b>	: No data available
<b>Explosive properties</b>	: No data available
<b>Oxidizing properties</b>	: The substance or mixture is classified as oxidizing with the category 2.

## Section 10: Stability and Reactivity Data

**Reactivity:** No data available.

**Chemical stability:** No data available.

**Possibility of hazardous reactions:** No data available.

**Conditions to avoid:** Avoid moisture.

**Incompatible materials:** Strong reducing agents, Strong acids.

**Hazardous decomposition products:** Other decomposition products - no data available.

## Section 11: Toxicological Information

### **Information on toxicological effects**

**Acute toxicity:** No data available.

**Skin corrosion/irritation:** No data available.

**Serious eye damage/eye irritation:** No data available.

**Respiratory or skin sensitization:** No data available.

**Germ cell mutagenicity:** No data available.

### **Carcinogenicity**

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity:** No data available

**Specific target organ toxicity - single exposure:** No data available

**Specific target organ toxicity - repeated exposure:** No data available

**Aspiration hazard:** No data available

### **Potential health effects**

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

**Ingestion** Harmful if swallowed.

## Section 11: Toxicological Information (Continued)

**Skin** Harmful if absorbed through skin. May cause skin irritation.  
**Eyes** May cause eye irritation.

### Signs and Symptoms of Exposure:

Cough, Shortness of breath, Headache, Nausea, Vomiting, to the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## Section 12: Ecological Information

**Toxicity:** No data available

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**Results of PBT and vPvB assessment:** No data available

**Other adverse effects:** No data available

## Section 13: Disposal Considerations

### Waste treatment methods

**Product:** Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging:** Dispose of as unused product.



## Section 14: Transport Information

### Land transport (ADR-RID)

**Proper shipping name:** NITRATES, INORGANIC, N.O.S.

**UN N°:** 1477

**H.I. nr:** -

**ADR - Class:** 5.1

**Labelling - Transport:** 4.1: Flammable solid.

**ADR - Group:** II

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

**Proper shipping name:** NITRATES, INORGANIC, N.O.S.

**UN N°:** 1477

**IMO-IMDG - Class or division:** 5.1

**IMO-IMDG - Packing group:** II

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

**Proper shipping name:** NITRATES, INORGANIC, N.O.S.

**UN N°:** 1477

**IATA - Class or division:** 5.1

**IATA - Packing group:** II

## Section 15: Other Regulatory Information

**This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.**

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

No data available

**Chemical Safety Assessment:** No data available



**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

## **Section 16 - Additional Information**

**References:** Not available.

**Other Special Considerations:** Not available.

### ***Disclaimer:***

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