

## **MATERIAL SAFETY DATA SHEET**

### **NEODYMIUM NITRATE 99.9% AR (Hexahydrate) CAS NO. : 16454-60-7**

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

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

**Product Name:** NEODYMIUM NITRATE 99.9% AR (Hexahydrate)

**CAS#:** 16454-60-7

**C.I. No.:** Not available.

**Synonym:** Not available.

**Chemical Name:** NEODYMIUM NITRATE 99.9% AR (Hexahydrate)

**Chemical Formula:** N<sub>3</sub>NdO<sub>9</sub> · 6H<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**

##### **Substances**

**Formula:** N<sub>3</sub>NdO<sub>9</sub> · 6H<sub>2</sub>O

**Molecular weight:** 438.35 g/mol

**CAS-No.:** 16454-60-7

**Hazardous ingredients according to Regulation (EC) No 1272/2008**

| NAME                             | CAS NO.    | CONTENT |
|----------------------------------|------------|---------|
| Neodymium trinitrate hexahydrate | 16454-60-7 | <=100 % |

## Section 3: Hazards Identification

### Classification of the substance or mixture

**Classification of the substance according to Regulation (EC) No 1272/2008:**

Oxidizing solids (Category 3), H272

Skin irritation (Category 2), H315

Eye irritation (Category 2), H319

Specific target organ toxicity -single exposure (Category 3), Respiratory system, H335

**Other hazards** : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Contact with water liberates toxic gas.

## 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.

**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:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 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:** Neodymium 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 vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

### **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.

Storage class (TRGS 510): Oxidizing hazardous materials

## Section 8: Exposure Controls/Personal Protection

### **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).

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

### 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.

**Body Protection:** Impervious clothing, Flame retardant antistatic protective clothing., 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 (US) or type ABEK (EN 14387) respirator cartridges as a backup to enginee 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).

**Control of environmental exposure:** Do not let product enter drains.

## Section 9: Physical and Chemical Properties

### Information on basic physical and chemical properties

|                                                 |                                        |
|-------------------------------------------------|----------------------------------------|
| a) Appearance Form                              | : Violet crystalline powder            |
| b) Odour                                        | : No data available.                   |
| c) Odour threshold                              | : No data available.                   |
| d) pH                                           | : No data available.                   |
| e) Melting point/range                          | : 69 °C                                |
| f) Initial boiling point and boiling range      | : 102 -103 °C-lit.                     |
| g) Autoignition temperature                     | : No data available.                   |
| h) Flammability (solid, gas)                    | : No data available.                   |
| i) Upper/lower flammability or explosive limits | : 102 -103 °C-lit.<br>102 -103 °C-lit. |
| j) Flash point [°C]                             | : No data available.                   |
| k) Evaporation rate                             | : No data available.                   |
| l) Vapour pressure                              | : No data available.                   |

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

|                             |                      |
|-----------------------------|----------------------|
| m)Vapour density            | : No data available. |
| n)Relative density,         | : No data available. |
| o)Solubility in water       | : No data available. |
| p)Viscosity                 | : No data available. |
| q)Explosive properties      | : No data available. |
| r)Oxidising properties      | : No data available. |
| s)Decomposition temperature | : No data available. |
| t)Autoignition temperature  | : No data available. |
| u)Molecular Weight          | : No data available. |

## Section 10: Stability and Reactivity Data

**Reactivity** : No data available.

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

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

**Conditions to avoid** : No data available.

**Incompatible materials** : Strong oxidizing agents, strong bases.

**Hazardous decomposition products**

**Other decomposition products** - Hazardous decomposition products formed under fire conditions-  
neodymium oxides

**Other decomposition products**-No data available.

## Section 11: Toxicological Information

**Information on toxicological effects**

**Acute toxicity:**

LD50 Oral-Rat-2,750 mg/kg(Neodymium trinitrate hexahydrate)

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation**

No data available

## Section 11: Toxicological Information (Continued)

### **Respiratory or skin sensitization**

No data available

### **Germ cell mutagenicity**

No data available

### **Carcinogenicity**

IARC:2A-Group 2A: Probably carcinogenic to humans (Neodymium trinitrate hexahydrate)

### **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

### **Additional Information**

RTECS: QP0175000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. (Neodymium trinitrate hexahydrate)

## Section 12: Ecological Information

**Toxicity:** No data available.

**Persistence - degradability :** No data available.

**Bioaccumulative potential :** Not established.

**Mobility in soil :** Not established.

**Results of PBT and vPvB assessment :** This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**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 b 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 :** DIDYMIUM NITRATE

**UN N° :** 1465

**ADR - Class :** 5.1

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

**Proper shipping name :** DIDYMIUM NITRATE

**UN N° :** 1465

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

**IMO-IMDG - Packing group :** III

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

**Proper shipping name :** DIDYMIUM NITRATE

**UN N° :** 1465

**IATA - Class or division :** 5.1

**IATA - Packing group :** III

## Section 15: Other Regulatory Information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**  
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### **Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out.

## Section 16 - Additional Information

**References:** Not available.

**Other Special Considerations:** Not available.

### ***Disclaimer:***

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