



## SAFETY DATA SHEET

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### 1. PRODUCT AND COMPANY IDENTIFICATION

#### 1.1 Product identifiers

Product name: +99% Neodymium(III) oxide

Product Number: Nd-OX-01

#### 1.2 Relevant identified uses of product

Uses of substance: scientific research and development

#### 1.3 Details of Supplier and manufacturer

GeoMega/Innord Inc.

75 Boulevard de mortagne, Boucherville, QC, J4B 6Y4, Canada

Telephone: +1 450 641 5119

#### 1.4 Emergency phone number

No emergency contact is provided for this product.

### 2. HAZARDS IDENTIFICATION

#### 2.1 Hazard classification of substance or mixture

Not a hazardous substance

#### 2.2 GHS label elements

Not a hazardous substance

#### 2.3 Hazards not otherwise classified (HNOC)

None

### 3. COMPOSITION AND INFORMATION ON INGREDIENTS

#### 3.1 Substances

Name	Chemical Formula	Molecular weight (g/mol)	EC No.	CAS No.	% by weight
Neodymium oxide	Nd <sub>2</sub> O <sub>3</sub>	336.48	215-214-1	1313-97-9	+99

#### 3.2 Toxicological data on ingredients

Not applicable

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measure:

<b>Inhalation</b>	if dust from the material is inhaled, move the affected person to fresh air. If not breathing, provide artificial respiration. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	wash off thoroughly with water and soap. If symptom of irritation develops call a physician.
<b>Eye contact</b>	in case of contact, wash eyes with plenty of water. Get medical advice if irritation occurs.
<b>Ingestion</b>	if swallowed, rinse mouth with water. Do not induce vomiting unless it is directed by a physician. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

### 4.2 Most important symptoms and effects (acute or delayed)

Most important symptoms and effects are described in section 11 or in the labelling.

### 4.3 Immediate medical attention and special treatment

No data available

## 5. FIREFIGHTING MEASURES

### 5.1 Extinguishing media

Suitable extinguishing media: Water, use extinguishing agents that are suitable to local circumstances and the surrounding environment.

### 5.2 Specific hazards arising from the chemical

Not applicable

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.  
In the event of fire, cool down the tanks with water spray.

### 5.4 Further information

The product itself is not flammable

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions

Avoid dust formation. Avoid inhalation of dust from the spilled material.

### 6.2 Environmental precautions

Do not let product enter drains or sewage systems.

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

Sweep up or vacuum up spillage and keep in suitable, closed containers for disposal. Collect dust using a vacuum cleaner equipped with HEPA. Avoid the formation of dust during clean up. Flush the area with water after product recovery. For waste disposal, check section 14.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment.

### 7.2 Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Store away from acids and moisture.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameter

Occupational exposure limits: no exposure limits noted for ingredients.

Biological limit values: no biological exposure limits noted for ingredients.

### 8.2 Appropriate engineering controls

Use mechanical exhaust or laboratory fume hood to prevent buildup of any dust during handling or thermal process.

### 8.3 Personal protective measures

#### Respiratory protection

Respiratory protection is required when dusts are generated. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

#### Hand 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.

#### Eye protection

Use safety glasses.

#### Skin and body protection

Use impervious gloves and protective work clothing (long sleeved shirts and pants).

#### Hygiene measures

General industrial hygiene practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on physical and chemical properties

#### Appearance

Physical state	solid
Form	powder
Color	light blue
Odor	odorless
Odor threshold	not applicable
pH	not applicable
Melting point/freezing point	2233 °C (4051 °F)
Boiling point	3760 °C (6800 °F)

<b>Flash point</b>	not applicable
<b>Evaporation rate</b>	no data available
<b>Flammability</b>	not applicable
<b>Lower explosion limit</b>	not applicable
<b>Upper explosion limit</b>	not applicable
<b>Vapor pressure</b>	no data available
<b>Vapor density</b>	no data available
<b>Relative density</b>	7.24 g/cm <sup>3</sup> at 20 °C (68 °F)
<b>Water solubility</b>	practically insoluble at 20 °C (68 °F)
<b>Partition coefficient n-octanol/water</b>	no data available
<b>Auto-ignition temperature</b>	not applicable
<b>Decomposition temperature</b>	no data available
<b>Viscosity</b>	no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Material is stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Avoid spread of dust

### 10.5 Materials to avoid

Strong acids

### 10.6 Hazardous decomposition products

No hazardous decomposition products are known

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

<b>Oral LD50</b>	> 5,000 mg/kg [Rat]
<b>Inhalation LC50</b>	no data available
<b>Dermal LD50</b>	no data available

#### Acute potential health effects

<b>Inhalation</b>	may be harmful if inhaled. May cause respiratory tract irritation.
<b>Ingestion</b>	may be harmful if swallowed. Ingestion of large quantities may cause digestive (gastrointestinal) tract irritation.
<b>Skin</b>	may be harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	dust in the eyes may cause eye irritation.

#### Germ cell mutagenicity

Genotoxicity in vivo - mouse - Intraperitoneal  
Cytogenetic analysis

## **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.
- ACGIH** no component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

## **Reproductive toxicity**

No data available

## **Specific target organ toxicity - single exposure (Globally Harmonized System)**

No data available

## **Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

No data available

## **Aspiration hazard**

No data available

## **Additional Information**

This product has no known adverse effect on human health. Repeated or prolonged exposure is not known to provoke any medical conditions.

## **12. ECOLOGICAL INFORMATION**

### **12.1 Ecotoxicity**

No data available

### **12.2 Persistence and degradability**

No data available

### **12.3 Bio accumulative potential**

No data available

### **12.4 Mobility in soil**

No data available

### **12.5 PBT and vPvB assessment**

No data available

### **12.6 Other adverse effects**

No data available

## **13. DISPOSAL CONSIDERATIONS**

### **13.1 Disposal and waste treatment methods**

#### **Disposal instructions**

Collect and dispose in sealed containers at licensed waste disposal site.

#### **Hazardous waste code**

No data available

#### **Waste from residues/ unused products**

Dispose in accordance with local regulations. Empty containers may contain some product residues. This materials and container must be disposed according to the disposal instruction.

## 14. TRANSPORT INFORMATION

**TDG (Canada)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

## 15. REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

## 16. OTHER INFORMATION

**Issue date**

30/04/2018

**Version**

01

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. GeoMega Corporation and its Affiliates shall not be held liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, however arising, even if GeoMega has been advised of the possibility of such damages.