



## Safety Data Sheet

According to 29 CFR 1910.1200 (OSHA HCS)

SDS No. 970

Review date December 12, 2016

### 1 Identification of substance and company

#### Product details

**Product name:** **Lanthanum oxide**  
**Product code:** 16763, 17002, 18668, 90794, C2096  
**Relevant identified uses of the substance:** Research and product development  
**Manufacturer/Supplier:** Noah Technologies Corporation  
1 Noah Park  
San Antonio, Texas 78249-3419  
Phone: (210) 691-2000  
Web site: www.noahtech.com

**Emergency information:** CHEMTREC  
800-424-9300

### 2 Hazards identification

**Hazard designation:** Irritant  
**GHS label elements**



**Signal word:** Warning

**Hazard statements:**

H315 Causes skin irritation  
H319 Causes serious eye irritation  
H335 May cause respiratory irritation  
**Precautionary statements:**  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray  
P264 Wash skin thoroughly after handling  
P271 Use only outdoors or in a well-ventilated area  
P280 Wear protective gloves/protective clothing/eye protection/face protection  
P302+352 IF ON SKIN: Wash with plenty of soap and water  
P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P321 Call a POISON CENTER or doctor/physician if you feel unwell  
P332+313 If skin irritation occurs: Get medical advice/attention  
P337+313 If eye irritation persists: Get medical advice/attention  
P362 Take off contaminated clothing and wash before reuse  
P403+233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations  
**Classification of the substance or mixture:**  
Skin irritation - 2  
Eye irritation - 2A  
Specific target organ toxicity - single exposure, respiratory system - 3

**Hazards not otherwise classified or not covered by GHS:** None

**HMIS ratings (scale 0-4):**

Health 1  
Flammability 0  
Physical Hazard 0

### 3 Composition/Information on ingredients

**Chemical name:** Lanthanum oxide  
**Identification number(s):**  
**CAS Number:** 1312-81-8  
**EC Number:** 215-200-5  
**Formula:** La<sub>2</sub>O<sub>3</sub>  
**Synonyms:** Lanthana, lanthanum sesquioxide

### 4 First aid measures

**After inhalation:** Seek immediate medical advice  
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.  
**After skin contact:** Instantly wash with water and soap and rinse thoroughly  
If irritation persists, consult a physician  
**After eye contact:** Rinse opened eye for at least 15 minutes under running water. Assure adequate flushing by separating the eyelids with fingers. Consult a physician.  
**After swallowing:** If conscious, rinse mouth out with water and seek medical advice  
**Most important symptoms and effects, both acute and delayed:** The symptoms of toxicity of the rare earth elements include writhing, ataxia, labored respiration, walking on the toes with arched back and sedation. Can cause delayed blood clotting leading to hemorrhages.

Exposure may also lead to sensitivity to heat, itching, increased awareness of odor and taste, and liver damage.

**Indication of any immediate medical attention and special treatment needed:**

No further relevant information available

#### 5 Fire-fighting measures

**Suitable extinguishing agents:** Non-flammable; Use extinguishing media most appropriate to surrounding fire conditions

**Special hazards caused by the material, its products of combustion or resulting gases:** In case of fire, the following can be released:  
Oxides of lanthanum

**Protective equipment:** Wear self-contained breathing apparatus  
Wear fully protective fire fighting equipment/clothing in fire situations

#### 6 Accidental release measures

**Person-related safety precautions:** Wear personal protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation

**Measures for environmental protection:** Do not allow material to be released to the environment without proper governmental permits

**Measures for cleaning/collecting:** Dispose of contaminated material as waste according to item 13  
Place in a suitable container for proper disposal  
Ventilate and wash spill site after material removal is complete

**Additional information:** See Section 7 for information on safe handling  
See Section 8 for information on personal protective equipment  
See Section 13 for information on disposal

#### 7 Handling and storage

**Information for safe handling:** Keep containers tightly sealed  
Store in cool, dry place in tightly closed containers  
Ensure good ventilation/exhaustion at the workplace

**Information about protection against explosions and fires:** This product is not flammable

**Storage requirements to be met by storerooms and containers:** Absorbs carbon dioxide from air. Keep container tightly sealed.

**Information about storage in one common storage facility:** Do not store together with strong acids or oxidizers  
Keep container tightly sealed

**Further information about storage conditions:** Store in cool, dry conditions in well sealed containers

#### 8 Exposure controls/personal protection

**Additional information about design of technical systems:** Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute

**Components with critical values that require monitoring at the workplace:** Particulates not otherwise classified: (mg/m<sup>3</sup>)  
OSHA PEL: TWA 15 (total dust)  
5 (respirable fraction)

**Additional information:** None

**Personal protective equipment:**

**General protective and hygienic measures:** The usual precautionary measures should be adhered to in handling the chemicals  
Keep away from foodstuffs, beverages and food  
Instantly remove any soiled and impregnated garments  
Wash hands during breaks and at the end of the work

**Respiratory protection:** Use suitable respirator when high concentrations are present  
Use only NIOSH/MESA or CEN approved dust mask type N95 or TYPE P1 (EN 143)

**Hand protection:** Impervious gloves

**Eye protection:** Safety glasses

**Skin protection:** Protective work clothing

**Additional protective equipment:** Sufficient to prevent contact  
Emergency eyewash and safety shower

#### 9 Physical and chemical properties

**General Information:**

**Physical state:** Powder

**Color:** White to off-white

**Smell:** Odorless

**Molecular Weight (Calculated):** 325.82

**pH (5% solution)** No data available

**Melting point/range:** 2307 C

**Boiling point/range:** 4200 C

**Flash point:** Non-flammable

**Autoignition temperature:** No data available

**Decomposition temperature:** No data available

**Danger of explosion:** Product does not present an explosion hazard

**Flammable limits:** Non-flammable

**Lower:** No data available

**Upper:** No data available

**Vapor pressure (mm Hg):** No data available

**Specific gravity at 20 °C** 6.51

**Solubility in/Miscibility with water at 20 °C** 0.00007 g/L @ 20 °C

#### 10 Stability and reactivity

<b>Conditions to be avoided:</b>	No decomposition if used and stored according to specifications See section 7 for information on proper handling and storage
<b>Materials to be avoided:</b>	Strong acids and oxidizers Exposure to carbon dioxide See section 7 for additional incompatibilities
<b>Dangerous reactions:</b>	No dangerous reactions known
<b>Hazardous decomposition products:</b>	Oxides of lanthanum

#### 11 Toxicological information

<b>Acute toxicity:</b>	
<b>LD/LC50 values that are relevant for classification:</b>	Oral-rat LD <sub>50</sub> : > 10,000 mg/kg
<b>Primary irritant effect:</b>	
<b>on the skin:</b>	Causes skin irritation
<b>on the eye:</b>	Causes serious eye irritation
<b>Sensitization:</b>	No sensitizing effect known
<b>Additional toxicological information:</b>	The symptoms of toxicity of the rare earth elements include writhing, ataxia, labored respiration, walking on the toes with arched back and sedation. Can cause delayed blood clotting leading to hemorrhages. Exposure may also lead to sensitivity to heat, itching, increased awareness of odor and taste, and liver damage. To the best of our knowledge the acute and chronic toxicity of this substance is not fully known
<b>Carcinogenicity:</b>	No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH

#### 12 Ecological information

<b>General notes:</b>	No further relevant toxicity information available Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system Do not allow material to be released to the environment without proper governmental permits
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#### 13 Disposal considerations

<b>Product recommendation:</b>	Consult state, local or national regulation for proper disposal Allow professional disposal company to handle waste
<b>Unclean packaging recommendation:</b>	Disposal must be made according to official regulations
<b>Recommended cleaning agent:</b>	Water, if necessary with cleaning agent

#### 14 Transport information

##### Land transport DOT

<b>Proper shipping name:</b>	Chemicals Non-Hazardous
<b>Technical name:</b>	Lanthanum oxide

##### Air transport ICAO-TI and IATA-DGR:

<b>Proper shipping name:</b>	Chemicals Non-Hazardous
<b>Technical name:</b>	Lanthanum oxide

##### UPS Ground / FedEx Ground

<b>Proper shipping name:</b>	Chemicals Non-Hazardous
<b>Technical name:</b>	Lanthanum oxide

##### UPS Air

<b>Proper shipping name:</b>	Chemicals Non-Hazardous
<b>Technical name:</b>	Lanthanum oxide

#### 15 Regulatory information

<b>SARA 302 Components:</b>	None
<b>SARA 311/312 Hazards:</b>	None
<b>SARA 313 Components:</b>	None
<b>California Prop. 65 Components:</b>	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm
<b>National regulations:</b>	All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory
<b>Information about limitation of use:</b>	For use only by technically qualified individuals

#### 16 Other information

The above information is accurate to the best of our knowledge. However, since data, safety standards and government regulation are subject to change and the conditions of handling and use, or misuse are beyond our control. NOAH MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. User should satisfy himself that he has all current data relevant to his particular use.