

Lanthanum Oxide La₂O₃

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Manufacturer/Supplier:

Prysmag Group

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Product Name: Lanthanum Oxide**Formula:** La₂O₃**CAS Number:** 1312-81-8

II. HAZARDOUS INGREDIENTS

Hazardous Components: Lanthanum Oxide**Percent (%):** 0-100**OSHA/PEL:** 15 mg/m³**ACGIH/TLV:** 10 mg/m³**Other:** 5 mg/m³ (resp)**HMIS Ratings:****Health:** 2**Flammability:** 0**Reactivity:** 0

III. PHYSICAL DATA

Boiling Point: 4200 °C**Melting Point:** 2307 °C - 2315 °C**Specific Gravity:** 6.51 gm/cc @ 15**Solubility in H₂O:** Insoluble**Appearance and Odor:** White powder and pieces, no odor.

IV. FIRE AND EXPLOSION HAZARDS DATA

Flash Point: N/E or N/A**Method Used:** Non-flammable**Flammable Limits: Lower:** N/A **Upper:** N/A**Extinguishing Media:** Use suitable extinguishing media for surrounding material and type of fire.

Special Firefighting Procedures: Firefighters must wear full face, self-contained breathing apparatus and full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate runoff to prevent environmental pollution.

Unusual Fire & Explosion Hazards: Lanthanum oxide may emit toxic fumes if involved in a fire. Absorbs CO₂ from the air causing a hissing sound. Interaction with hot water may be vigorously exothermic.

V. HEALTH HAZARD INFORMATION

Effects of Exposure:

To the best of our knowledge the chemical, physical and toxicological properties of lanthanum oxide have not been thoroughly investigated and recorded.

Lanthanum is considered a rare earth metal. These metals are moderately to highly toxic. The symptoms of toxicity of the rare earth elements include writhing, ataxia, labored respiration, walking on the toes with arched back and sedation. The rare earth elements exhibit low toxicity by ingestion exposure. However, the intraperitoneal route is highly toxic while the subcutaneous route is poison to moderately toxic. The production of skin and lung granulomas after exposure to them requires extensive protection to prevent such exposure. (Sax, Dangerous Properties of Industrial Materials, eighth edition.)

Acute Effects:

Inhalation: May cause irritation to the respiratory tract and mucous membrane. Dusts may cause lung damage such as lung granulomas and pulmonary fibrosis. Large doses may cause writhing, loss of muscle coordination, labored respiration, sedation, hypotension and cardiovascular collapse.

Ingestion: May cause gastrointestinal irritation and nervous afflictions.

Skin: May cause irritation, rashes, lesions and skin granulomas.

Eye: May cause irritation.

Chronic Effects:

Inhalation: Prolonged or repeated inhalation may cause writhing, loss of muscle coordination, labored respiration, sedation hypotension and cardiovascular collapse.

Ingestion: May affect the coagulation rate of the blood.

Skin: May cause dermatitis.

Eye: No chronic health effects recorded.

Target Organs: May affect the respiratory system, blood and skin.

Medical Conditions Generally Aggravated by Exposure: Pre-existing respiratory disorders.

Carcinogenicity: NTP: No IARC: No OSHA: No

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: Remove victim to fresh air, keep warm and quiet, give oxygen if breathing is difficult and seek medical attention.

INGESTION: Give 1-2 glasses of milk or water and induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth to an unconscious person.

SKIN: Remove contaminated clothing, brush material off skin, wash affected area with mild soap and water, seek medical attention if irritation persists.

EYE: Flush eyes with plenty of water for at least 15 minutes using an eyewash fountain. Lift upper and lower lids and rinse well under them. Get medical attention if irritation develops or persists.

VI. REACTIVITY DATA

Stability: Stable

Conditions to Avoid: None

Incompatibility (Material to avoid): Carbon dioxide and strong acids.

Hazardous Decomposition Products: None determined

Hazardous Polymerization: Will not occur.

VII. SPILL OR LEAK PROCEDURES

Steps to Be Taken in Case Material Is Released or Spilled: Wear appropriate respiratory and protective equipment. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for proper disposal. Take care not to raise dust.

Waste Disposal Method: Disposal must be made in accordance with Federal, State and Local regulations.

VIII. SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type): Use a NIOSH/MSHA approved dust mask under dusting conditions.

Ventilation: Handle in an enclosed, controlled environment. Handle in an inert gas, such as argon. Use local exhaust to maintain concentration at or below the PEL, TLV. Mechanical exhaust is not recommended.

Protective Gloves: Rubber gloves

Eye Protection: Safety glasses

Other Protective Clothing or Equipment: Protective gear suitable to prevent contamination.

IX. SPECIAL PRECAUTIONS

Precautions to Be Taken in Handling and Storage: Store in a cool, dry place in tightly closed containers. Avoid breathing dusts. Avoid direct or prolonged contact with skin and eyes. Wash hands thoroughly after handling. Do not rub eyes with soiled hands. Do not eat, drink or smoke in the work area. Lanthanum oxide absorbs carbon dioxide from the air. Handle and store in a controlled environment and inert gas, such as argon.

Other Precautions: Dry powders can build static electricity charges when subjected to the friction of conveying, mixing or sliding. To prevent ignition, provide adequate precautions, such as electrical grounding, or inert atmospheres when material is used in the presence of flammable materials.

Work Practices: Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in the work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air.

TSCA Listed: Yes

DOT Regulations:

Hazard Class: None

The above information is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Prysmag shall not be held liable for any damage resulting from handling or from contact with the above product.