

SUPPLIER



MATERIAL SAFETY DATA SHEET

GENERATED 03/15/2011, **REVISION** 06/12/2001, **DATE CREATED** 07/23/1986

SECTION I - PRODUCT IDENTIFICATION

Lanthanum oxide, powder and pieces

PRODUCT NAME: Lanthanum oxide, powder and pieces
PRODUCT CODE: L-MSDS0026
REFERENCE #: 1312-81-8

MANUFACTURER INFORMATION

COMPANY NAME: Materion Advanced Chemicals Inc.
 1316 W. St. Paul Avenue
 Milwaukee, WI 53233

EMERGENCY CONTACT: CHEMTREC (800)424-9300

ALTERNATE EMERGENCY CONTACT: Materion Advanced Chemicals Inc. (414)
 289-9800

CHEMICAL FAMILY: Metal alloy
CAS NUMBER: 1312-81-8
RTECS #: OE5330000
FORMULA: La₂O₃
MOLECULAR WEIGHT: 325.80
UPC/EAN: 215-200-5

SYNONYMS

Lanthanum oxide; lanthana; lanthanum trioxide; lanthanum sesquioxide; dilanthanum oxide; dilanthanum trioxide; lanthana; lanthania; lanthanum (III) oxide.

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Lanthanum oxide, powder and pieces

Hazardous Components (Chemical Name)	CAS #	Concentration	OSHA PEL	ACGIH TLV	Other Limits
Lanthanum oxide	1312-81-8	0.0 -100.0 %	15 mg/m3	10 mg/m3	5 mg/m3 resp

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Lanthanum oxide, powder and pieces

<u>PHYSICAL STATES:</u>	[] Gas	[] Liquid	[X] Solid
<u>MELTING POINT:</u>	2307.00 C - 2315.00 C		
<u>BOILING POINT:</u>	4200.00 C		
<u>SPECIFIC GRAVITY (WATER = 1):</u>	6.51 gm/cc at 15.0 C		
<u>VAPOR PRESSURE (VS. AIR OR MM HG):</u>			
<u>VAPOR DENSITY (VS. AIR = 1):</u>			
<u>EVAPORATION RATE (VS BUTYL ACETATE=1):</u>			
<u>SOLUBILITY IN WATER:</u>	insoluble		
<u>SOLUBILITY NOTES</u>			
<u>PERCENT VOLATILE:</u>	N.A.		
<u>APPEARANCE AND ODOR</u>			

White powder and pieces, hygroscopic, no odor.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Lanthanum oxide, powder and pieces

<u>FLASH PT:</u>	N.A.	Method Used:	Unknown
<u>EXPLOSIVE LIMITS:</u>	LEL: NA	UEL:	NA
<u>EXTINGUISHING MEDIA</u>			

USE: Not applicable. Use suitable extinguishing media for surrounding materials and type of fire.

SPECIAL FIRE FIGHTING PROCEDURES

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

UNUSUAL FIRE AND 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.
Hygroscopic

HAZARDOUS COMBUSTION PRODUCTS

SECTION V - REACTIVITY DATA
Lanthanum oxide, powder and pieces

STABILITY: Unstable [X] Stable []

CONDITIONS TO AVOID - INSTABILITY

Readily absorbs carbon dioxide from air and vigorously exothermic with water.

INCOMPATIBILITY - MATERIALS TO AVOID

Chlorine trifluoride, water and strong acids.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

HAZARDOUS POLYMERIZATION: Will occur [] Will not occur [X]

CONDITIONS TO AVOID - HAZARDOUS POLYMERIZATION

SECTION VI - HEALTH HAZARD DATA
Lanthanum oxide, powder and pieces

HEALTH HAZARDS (ACUTE AND CHRONIC)

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)

INHALATION:

Acute: 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.

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

INGESTION:

Acute: May cause gastrointestinal irritation and nervous afflictions.

Chronic: May affect the coagulation rate of the blood.

SKIN:

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

Chronic: May cause dermatitis.

EYE:

Acute: May cause irritation. May cause corneal damage, conjunctivitis.

Chronic: No chronic health effects recorded.

TARGET ORGANS: May affect the respiratory system, blood and skin.

CARCINOGENICITY: NTP? No IARC Monographs? No OSHA Regulated? No

CARCINOGENICITY/OTHER INFORMATION

Orl-rat LD50: >9968 mg/kg

Rabbit Standard Draize Test Dose: 100 mg; mild reaction

RECOMMENDED EXPOSURE LIMITS

See "Section II"

LD 50 / LC 50

See "Carcinogenicity/Other Information"

SIGNS AND SYMPTOMS OF EXPOSURE

INHALATION: May cause writhing, ataxia, labored respiration, walking on the toes with arched back and sedation.

INGESTION: May cause nausea, vomiting, diarrhea, abdominal burning and cramp-like pain.

SKIN: May cause redness, itching and burning.

EYE: May cause redness, itching, burning and watering.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

Pre-existing respiratory disorders.

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 lukewarm water, lifting upper and lower eyelids, for at least 15 minutes. Seek medical attention if irritation persists.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Lanthanum oxide, powder and pieces

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Wear appropriate respiratory and protective equipment specified in section VIII-control measures. 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

Dispose of in accordance with local, state and federal regulations.

HAZARD LABEL INFORMATION:

Store in cool, dry area Store in tightly sealed container Wash thoroughly after handling

PRECAUTIONS TO BE TAKEN IN HANDLING

Lanthanum oxide absorbs carbon dioxide from the air and is hygroscopic. Handle and store in a controlled environment and inert gas, such as argon.

PRECAUTIONS TO BE TAKEN IN STORING

SECTION VIII- CONTROL MEASURES

Lanthanum oxide, powder and pieces

PROTECTIVE EQUIPMENT SUMMARY - HAZARD LABEL INFORMATION:

NIOSH approved respirator Impervious gloves Safety glasses Clothes to prevent skin contact

RESPIRATORY EQUIPMENT (SPECIFY TYPE)

NIOSH - approved dust respirator

EYE PROTECTION

Safety glasses

PROTECTIVE GLOVES

Rubber gloves

OTHER PROTECTIVE CLOTHING

Protective gear suitable to prevent contamination

VENTILATION

Local Exhaust: To maintain concentration at or below the PEL, TLV

Special: Handle in an enclosed, controlled environment

Mechanical (Gen): Not recommended

Other: Handle in an inert gas, such as argon

WORK/HYGIENIC/MAINTENANCE 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 work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.

<p style="text-align: center;">SECTION IX - ADDITIONAL COMMENTS Lanthanum oxide, powder and pieces</p>
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No data available.

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