

Material Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Lanthanum Acetate

Product Use: Alloy
Product Number(s): 5260, 5261, 5262
Chemical Family: Lanthanide Acetate
Company Identification
Molycorp Minerals, LLC
HC-1 Box 224
67750 Bailey Road
Mountain Pass, CA 92366
United States of America

Transportation Emergency Response
CHEMTREC: (800) 424-9300 or (703) 527-3887 (collect)

Health Emergency
California Poison Control System: (800) 356-3129

Product Information
MSDS Requests: (760) 856-7619 (7:30am - 3:30pm, Pacific Time, Mon - Fri)

SECTION 2 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT (%weight)
Lanthanum Acetate	917-70-4	98-100

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

NFPA RATINGS: Health: 2 Flammability: 0 Reactivity: 0

Colorless solution with pungent odor

WARNING
Causes severe eye irritation.
Avoid contact with eyes, skin, and clothing.
Wash thoroughly after handling.



IMMEDIATE HEALTH EFFECTS:

Eye: Severe eye irritant. Contact may cause stinging, watering, redness, swelling, and eye damage.
Skin: Contact may cause mild skin irritation including redness and burning sensation. Contact with the

skin is not expected to cause an allergic skin response. Skin absorption is not a significant route of exposure.

Ingestion: Not expected to be harmful if swallowed.

Inhalation: Mists may be irritating to the nose, throat, and upper respiratory tract upon inhalation. Not expected to cause acute toxicity if inhaled.

See Section 11 – Toxicological Information.

DELAYED OR OTHER HEALTH EFFECTS:

Repeated overexposure to dusts, if generated, may result in chronic lung disease.

Persons with pre-existing skin disorders or eye disease may be more susceptible to the effects of this substance.

See Section 11 – Toxicological Information.

POTENTIAL ENVIRONMENTAL EFFECTS:

No information available.

SECTION 4 FIRST AID MEASURES

Eye: For direct contact, immediately hold eyelids apart and flush affected eye(s) with clean water for at least 20 minutes. Seek immediate medical attention.

Skin: Remove contaminated shoes and clothing and clean affected areas thoroughly by washing with mild soap and water. If irritation or redness persists, seek medical attention.

Ingestion (swallowing): Do not induce vomiting. As a precaution, get medical advice. Animal studies have shown a similar material to be practically nontoxic.

Inhalation (breathing): Immediately move victim away from exposure and into fresh air. If respiratory or other symptoms develop, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration.

SECTION 5 FIRE FIGHTING MEASURES

FIRE CLASSIFICATION:

OSHA Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or combustible.

NFPA RATINGS: Health: 2 Flammability: 0 Reactivity: 0



FLAMMABLE PROPERTIES:

Flashpoint:	Not applicable
Autoignition:	Not applicable
Lower Explosive Limit (LEL):	Not applicable
Upper Explosive Limit (UEL):	Not applicable

EXTINGUISHING MEDIA: If this material is involved in a fire: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: This material will not burn.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in *Section 8 – Exposure Controls and Personal Protection*. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

Reporting: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

SECTION 7 HANDLING AND STORAGE

Precautionary Measures: Do not get in eyes, on skin, or on clothing. Do not breathe mist. Wash thoroughly after handling.

General Handling Information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

Static Hazard: If dried, electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Component	% by weight	Exposure Limit		
		Limit	Agency	Type
Acidic Mist (based on acetic acid)	Unknown	25 mg/m ³	ACGIH	TWA
		25 mg/m ³	Cal. OSHA	TWA
		37 mg/m ³	Cal. OSHA	STEL
		25 mg/m ³	OSHA	TWA

GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user

should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS:

Use in a well-ventilated area.

PERSONAL PROTECTIVE EQUIPMENT:

Eye/Face Protection: The use of a face shield and/or chemical goggles to safeguard against potential eye contact, irritation, or injury is recommended. Eye wash and quick-drench shower facilities should be available in the work area.

Skin Protection: The use of gloves impermeable to the specific material handled is advised to prevent skin contact, possible irritation, absorption, and skin damage - see glove manufacturer literature for permeability information. Depending use conditions, apron, arm covers, or other impervious clothing may be necessary.

Respiratory Protection: If exposure to harmful levels of airborne material may occur when working with this material, wear an approved respirator that provides protection. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color:	Colorless
Physical State:	Aqueous Solution
Odor:	Pungent, vinegar
pH:	4.5
Vapor Pressure:	Not applicable
Vapor Density (Air = 1):	Not applicable
Boiling Point:	No information
Solubility:	17 g/100 ml H ₂ O maximum concentration
Freezing/Melting Point:	2200 °C
Specific Gravity:	1.2 @ 20°C (68°F)
Bulk Density:	10.0 lbs/gallon
Viscosity:	No information
Evaporation Rate:	No information

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Incompatibility With Other Materials: No data available.

Hazardous Decomposition Products: None known (None expected).

Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS

Eye Irritation: A similar lanthanide, cerium acetate, is a severe eye irritant in animal studies.

Skin Irritation: A similar lanthanide, cerium acetate, is not irritating in animal studies.

Skin Sensitization: A similar lanthanide, cerium oxide, is not sensitizing in guinea pig maximization test.

Acute Dermal Toxicity: A similar lanthanide, cerium oxide, is practically non toxic by this route.

Acute Oral Toxicity: A similar lanthanide, cerium acetate, is practically nontoxic by this route.

Acute Inhalation Toxicity: Not expected to be harmful if inhaled based on a similar lanthanide, cerium oxide.

OTHER HEALTH EFFECTS

Chronic Inhalation Toxicity: An accumulation of insoluble lanthanide particles has been observed in the respiratory tract of humans following chronic occupational exposure and in rodents following chronic exposure to a similar lanthanide cerium oxide. Lymphoid hyperplasia in the bronchial lymph nodes was the critical inhalation health effect identified by the USEPA in a 2008 toxicological review of cerium oxide.

Developmental/Reproductive Toxicity: A similar lanthanide, lanthanum carbonate, did not affect fertility or mating performance or produce any harm to the fetus in a rat study.

Mutagenicity: A similar lanthanide, cerium oxide, was negative in the Ames bacterial mutagenic test using bacterial strains TA135, TA1537, TA98, TA100, TA102, and WP2uvrA., and in the mouse *in vivo* micronucleus assay.

Carcinogenicity: A similar lanthanide, lanthanum carbonate, was not carcinogenic in a two-year oral rat study. Not assessed by IARC, NTP, or USEPA.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY

No information available.

ENVIRONMENTAL FATE

Ready Biodegradability: This inert mineral product is not expected to be readily biodegradable.

SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

Agency:	Shipping Description:
DOT	NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR
IMO/IMDG	NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE
ICAO/IATA	NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

SECTION 15 REGULATORY INFORMATION

FEDERAL REGULATIONS:

EPCRA 311/312 CATEGORIES:	
1. Immediate (Acute Health Effects):	NO
2. Delayed (Chronic Health Effects):	YES
3. Fire Hazard:	NO
4. Sudden Release of Pressure Hazard:	NO
5. Reactivity Hazard:	NO

STATE REGULATIONS:

California: The components in this material are not subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5).

REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

No components of this material were found on the regulatory lists above.

INVENTORY STATUS:

INVENTORY:	STATUS
AICS (Australia):	All components comply with inventory requirements
DSL (Canada):	All components comply with inventory requirements
EINECS (European Union):	All components comply with inventory requirements
ENCS (Japan):	All components comply with inventory requirements
IECSC (China):	All components comply with inventory requirements
KECI (Korea):	All components comply with inventory requirements
PICCS (Philippines):	All components comply with inventory requirements
TSCA (United States):	All components comply with inventory requirements

OTHER REGULATORY INFORMATION:**WHMIS Classification** (Canada):

D2B – Materials causing other toxic effects (eye irritant and chronic respiratory disease).

SECTION 16 OTHER INFORMATION**NFPA RATINGS:** Health: 2 Flammability: 0 Reactivity: 0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**REVISION STATEMENT:** This is a revised Material Safety Data Sheet.**Revision Date:** August 8, 2008**Previous Revision Date:** March 29, 2004**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

ACGIH: American Conference of Government Industrial Hygienists	IMO/IMDG: International Maritime Dangerous Goods Code
AICS: Australian Inventory of Chemical Substances	KECI: Korean Existing Chemical Inventory
API: American Petroleum Institute	MSDS: Material Safety Data Sheet
CAS: Chemical Abstract Service Number	MSHA: Mine Safety and Health Administration
CFR: Code of Federal Regulations	NFPA: National Fire Protection Association (US)
CVX: Chevron	NTP: National Toxicology Program (US)

DOT: Department of Transportation (US)	OSHA: Occupational Safety and Health Administration
DSL: Domestic Substances List (Canada)	PICCS: Phillipine Inventory of Chemicals and Chemical Substances
EINECS: European Inventory of Existing Chemical Substances	SARA: Superfund Amendments and Reauthorization Act (US)
ENCS: Existing and New Chemical Substances (Japan)	TSCA: Toxic Substances Control Act (US)
EPCRA: Emergency Planning and Community Right-to-Know Act (US)	TWA: Time Weighted Average
IARC: International Agency for Research on Cancer	USEPA: United States Environmental Protection Agency
ICAO: International Civil Aviation Organization (UN)	WHMIS: Workplace Hazardous Materials

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1)

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.