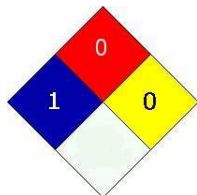


Material Safety Data Sheet -Lanthanum Compounds 01/01/2010



Lanthanum compounds classified as irritant (HEALTH)

Product and Company ID

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CHEMICAL NAME: Lanthanum Compounds
CHEMICAL FAMILY: Lanthanide

Hazards Identification

EMERGENCY OVERVIEW: exists as white powder.
Avoid contact with eyes. Wash thoroughly after handling
ROUTES OF ENTRY: Dust particles
POTENTIAL HEALTH EFFECTS – (EYES – INGESTION – INHALATION): May cause irritation
ACUTE HEALTH HAZARDS: Do not breathe in the dust

First Aid Measures

EYES: Flush eyes with warm water for 15 minutes, occasionally lifting the upper and lower eyelids. If irritation persists, seek medical attention.
SKIN: Wash with soap and water. If irritation persists, seek medical attention.
INGESTION: Effects are usually mild, drink a lot of water, seek medical attention if unique symptoms arise after ingestion
INHALATION: Take deep breaths of fresh air and avoid further inhalation of the material. If irritation persists seek medical attention.
NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Lanthanides, because of their high densities, may produce striking abnormalities on chest x-rays. Lanthanides generally are not believed to be fibrogenic and the lesions typically have little or no clinical significance. However occasional cases of suspected pneumoconiosis have been reported.

Accidental Relief Measures

Evacuation Procedures: Stay away from spill so as to avoid airborne dust. Exposure concerns are limited to inhalation and, in case of a very large all-surrounding spill, suffocation. Stay away from spill.
Containment of Spill: Spill should be contained if it can be done without risk.
Cleanup and Disposal of Spill do not dispose of spill by dumping into public sewer or any unauthorized waste treatment system. Spill should be swept up and properly prepared for disposal
Environment and Regulatory Reporting: Should spilt material enter an unauthorized waste treatment system, contact the local authorities.
SECTION 7: HANDLING AND STORAGE
Handling: Use appropriate respiratory protection when exposure exceeds established limits. Wash thoroughly after handling.
Storage: Keep containers tightly closed and in cool, dry, well-ventilated areas.
ENGINEERING CONTROLS: Add ventilation capacity if current environment cannot maintain airborne concentrations below the established exposure limit.

RESPIRATORY PROTECTION: To avoid inhalation wear dust mask or self-contained respiratory device.

EYE PROTECTION: To avoid eye contact, wear safety glasses with side shields or chemical goggles.

SKIN PROTECTION: To avoid skin contact, wear rubber gloves, boots, long-sleeved shirts, long-pants and head covering.

INGESTION: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

EXPOSURE GUIDELINES: PEL(OSHA): 15 mg/m³ (As nuisance dust)

Toxicological Information:

Eye irritation, Skin irritant: Powder - irritant effect
Oral LD₅₀: 5000mg/kg (rat)
Chronic Toxic Studies: Lanthanides have been known to increase blood Coagulation rate. Exposure causes increased sensitivity to heat itching and skin lesions.
Dermal LD₅₀, Inhalation LC₅₀, Skin Sensitization . Mutagenicity Data, Reproductive/Teratolology Data, Carcinogenicity Data : No information is known
ECOLOGICAL INFORMATION:
Eco-acute toxicity: Acute toxicity is considered unlikely because of the existence of similar compounds in nature.

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): Components registered as "chemicals in commerce"
CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT):

This material contains no hazardous or extremely hazardous substances as defined by CERCLA
Workplace classification: This product is not considered hazardous under the OSHA Hazard Communication Standard

(29 CFR 1910.1200)

Risk Phrases:

36/37/38: irritating to eyes, respiratory system and skin

Safety phrases:

22: Do not breathe dust

24/25: Avoid contact with skin and eyes

37: Wear suitable gloves

Composition/information ingredients

INGREDIENTS: Lanthanum Compounds

INGREDIENT	CAS NO.
Lanthanum Oxide Sulfate	56802-53-0
Lanthanum Oxide	1312-81-8
Yttrium Oxide Sulfate	11099-13-1
Yttrium Oxide	1314-36-9
Sulphur Oxide	7446-09-5
Yttrium Flouride	13709-49-4
Lanthanoid Flouride	13709-38-1

NOTES: Inert ingredient – trace other
Doping with different compounds

Fire Fighting measures

EXTINGUISHING MEDIA: use water, carbon dioxide, and dry chemical fire extinguishing agents, dry sand or dry ground dolomite.

SPECIAL FIRE FIGHTING PROCEDURES: Personal equipment: wear NIOSH/MSHA approved self-contained breathing apparatus, and flame and chemical resistant clothing.

ALL HAZARDS CLASSIFICATIONS: Not applicable

Fire Physical and Chemical Properties

APPEARANCE: white powder

ODOR: none

pH AS SUPPLIED: 7

BOILING POINT: F: 7592°F C: 4200°C

MELTING POINT: F: 4185°F C: 2307°C

SPECIFIC GRAVITY (H₂O = 1): @ 5.2g/cm³

EVAPORATION RATE: In air partial decomposition at 800 °C under emission with sulfate