

Printing date 07/21/2021

Reviewed on 07/21/2021

## 1 Identification

- **Product name**
- **Trade name:** Lanthanum chips (99.6% REO)
- **Item number:** 93-5746
- **CAS Number:**  
7439-91-0
- **EC number:**  
231-099-0
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Strem Chemicals, Inc.  
7 Mulliken Way  
NEWBURYPORT, MA 01950  
USA  
info@strem.com
- **Information department:** Technical Department
- **Emergency telephone number:**  
EMERGENCY: CHEMTREC: + 1 (800) 424-9300  
During normal opening times: +1 (978) 499-1600

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Sol. 1 H228 Flammable solid.  
Water-react. 2 H261 In contact with water releases flammable gas.

- **Label elements**
- **GHS label elements**  
The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02

- **Signal word** Danger
- **Hazard statements**  
H228 Flammable solid.  
H261 In contact with water releases flammable gas.
- **Precautionary statements**  
P231+P232 Handle under inert gas. Protect from moisture.  
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0  
Fire = 0  
Reactivity = 2

The substance demonstrates unusual reactivity with water.

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



Health = 0  
Fire = 0  
Reactivity = 2

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**  
7439-91-0 lanthanum
- **Identification number(s)**
- **EC number:** 231-099-0

### 4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
Sand. Do not use water.  
CO<sub>2</sub>, sand, extinguishing powder. Do not use water.  
Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture** No further relevant information available.

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

30 mg/m3

· **PAC-2:**

330 mg/m3

· **PAC-3:**

2,000 mg/m3

**7 Handling and storage**

- **Handling:** Handle under inert gas.
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:** Store contents under inert gas.
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

**8 Exposure controls/personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Immediately remove all soiled and contaminated clothing.

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Wash hands before breaks and at the end of work.

- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Safety glasses

**9 Physical and chemical properties**

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

|                          |                 |
|--------------------------|-----------------|
| <b>Form:</b>             | Solid           |
| <b>Color:</b>            | Silver grey     |
| · <b>Odor:</b>           | Odorless        |
| · <b>Odor threshold:</b> | Not determined. |

· **pH-value:** Not applicable.

· **Change in condition**

|                                     |                  |
|-------------------------------------|------------------|
| <b>Melting point/Melting range:</b> | 920 °C (1688 °F) |
| <b>Boiling point/Boiling range:</b> | 3.454 °C (38 °F) |

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Flammable.  
Contact with water liberates extremely flammable gases.

· **Ignition temperature:**

**Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

· **Danger of explosion:** Not determined.

· **Explosion limits:**

|               |                 |
|---------------|-----------------|
| <b>Lower:</b> | Not determined. |
| <b>Upper:</b> | Not determined. |

· **Vapor pressure:** Not applicable.

· **Density at 20 °C (68 °F):** 6.166 g/cm<sup>3</sup> (51.45527 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not applicable.

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|   |  |
|---|--|
| · <b>Evaporation rate</b>                         | Not applicable.                            |
| · <b>Solubility in / Miscibility with Water:</b>  | Insoluble.                                 |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                            |
| · <b>Viscosity:</b>                               |  |
| <b>Dynamic:</b>                                   | Not applicable.                            |
| <b>Kinematic:</b>                                 | Not applicable.                            |
| · <b>Solvent content:</b>                         |  |
| <b>Organic solvents:</b>                          | 0.0 %                                      |
| <b>VOC content:</b>                               | 0.0 g/l / 0.00 lb/gl                       |
| · <b>Other information</b>                        | No further relevant information available. |

**10 Stability and reactivity**

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** Contact with water releases flammable gases.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

**11 Toxicological information**

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

Substance is not listed.

· **NTP (National Toxicology Program)**

Substance is not listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

**12 Ecological information**

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.

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- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not known to be hazardous to water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

|   |  |
|---|--|
| · <b>UN-Number</b><br>· <b>DOT, IMDG, IATA</b>  | UN3208   |
| · <b>UN proper shipping name</b><br>· <b>DOT</b><br>· <b>IMDG, IATA</b>   | Metallic substance, water-reactive, n.o.s.<br>METALLIC SUBSTANCE, WATER-REACTIVE, N.O.S. |
| · <b>Transport hazard class(es)</b><br>· <b>DOT</b>   |  |
|                                  |  |
| · <b>Class</b><br>· <b>Label</b>  | 4.3 Substances which, in contact with water, emit flammable gases<br>4.3                 |
| · <b>IMDG, IATA</b>   |  |
|                                  |  |
| · <b>Class</b><br>· <b>Label</b>  | 4.3 Substances which, in contact with water, emit flammable gases<br>4.3                 |
| · <b>Packing group</b><br>· <b>DOT, IMDG, IATA</b>  | II   |
| · <b>Environmental hazards:</b><br>· <b>Marine pollutant:</b>   | No   |
| · <b>Special precautions for user</b><br>· <b>EMS Number:</b><br>· <b>Stowage Category</b><br>· <b>Stowage Code</b> | Not applicable.<br>F-G,S-N<br>E<br>SW2 Clear of living quarters.                         |

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|   |   |
|---|---|
| <ul style="list-style-type: none"> <li>· <b>Handling Code</b></li> <li>· <b>Segregation Code</b></li> </ul>   | <p><i>H1 Keep as dry as reasonably practicable</i></p> <p><i>SG26 In addition: from goods of classes 2.1 and 3 when stowed on deck of a containership a minimum distance of two container spaces athwartship shall be maintained, when stowed on ro-ro ships a distance of 6 m athwartship shall be maintained.</i></p> |
| <ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b></li> </ul>                        | <p><i>Not applicable.</i></p>   |
| <ul style="list-style-type: none"> <li>· <b>Transport/Additional information:</b></li> <li>· <b>DOT</b></li> <li>· <b>Quantity limitations</b></li> </ul> | <p><i>On passenger aircraft/rail: 15 kg</i></p> <p><i>On cargo aircraft only: 50 kg</i></p>   |
| <ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>      | <p><i>500 g</i></p> <p><i>Code: E2</i></p> <p><i>Maximum net quantity per inner packaging: 30 g</i></p> <p><i>Maximum net quantity per outer packaging: 500 g</i></p>   |
| <ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>   | <p><i>UN 3208 METALLIC SUBSTANCE, WATER-REACTIVE, N.O.S., 4.3, II</i></p>   |

**15 Regulatory information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>· <b>Section 355 (extremely hazardous substances):</b></li> </ul>               | <p><i>Substance is not listed.</i></p> |
| <ul style="list-style-type: none"> <li>· <b>Section 313 (Specific toxic chemical listings):</b></li> </ul>             | <p><i>Substance is not listed.</i></p> |
| <ul style="list-style-type: none"> <li>· <b>TSCA (Toxic Substances Control Act):</b></li> </ul>                        | <p><i>Substance is listed.</i></p>     |
| <ul style="list-style-type: none"> <li>· <b>Proposition 65</b></li> </ul>  |  |
| <ul style="list-style-type: none"> <li>· <b>Chemicals known to cause cancer:</b></li> </ul>                            | <p><i>Substance is not listed.</i></p> |
| <ul style="list-style-type: none"> <li>· <b>Chemicals known to cause reproductive toxicity for females:</b></li> </ul> | <p><i>Substance is not listed.</i></p> |
| <ul style="list-style-type: none"> <li>· <b>Chemicals known to cause reproductive toxicity for males:</b></li> </ul>   | <p><i>Substance is not listed.</i></p> |
| <ul style="list-style-type: none"> <li>· <b>Chemicals known to cause developmental toxicity:</b></li> </ul>            | <p><i>Substance is not listed.</i></p> |
| <ul style="list-style-type: none"> <li>· <b>Carcinogenic categories</b></li> </ul>                                     |  |
| <ul style="list-style-type: none"> <li>· <b>EPA (Environmental Protection Agency)</b></li> </ul>                       | <p><i>Substance is not listed.</i></p> |
| <ul style="list-style-type: none"> <li>· <b>TLV (Threshold Limit Value established by ACGIH)</b></li> </ul>            | <p><i>Substance is not listed.</i></p> |

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· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

· **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02

· **Signal word** *Danger*

· **Hazard statements**

H228 *Flammable solid.*

H261 *In contact with water releases flammable gas.*

· **Precautionary statements**

P231+P232 *Handle under inert gas. Protect from moisture.*

P210 *Keep away from heat/sparks/open flames/hot surfaces. No smoking.*

P303+P361+P353 *If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*

P305+P351+P338 *If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*

P403+P233 *Store in a well-ventilated place. Keep container tightly closed.*

P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Technical Department.

· **Contact:** Technical Director

· **Date of preparation / last revision** 07/21/2021 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Sol. 1: Flammable solids – Category 1

Water-react. 2: Substances and mixtures which in contact with water emit flammable gases – Category 2