

# SAFETY DATA SHEET

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## SECTION 1. IDENTIFICATION

**Product Identifier:** (4N) 99.99% Tris(cyclopentadienyl)lanthanum

**Product Code:** LA-TC-04

**CAS Number:** 1272-23-7

**Relevant identified uses of the substance:** Scientific research and development

Supplier details:

American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351  
Emergency telephone number:  
+1 800-424-9300

## SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable solids (Category 2), H228

Substances and mixtures, which in contact with water, emit flammable gases (Category 2), H261

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word Danger

Hazard statement(s)

H228 Flammable solid.

H261 In contact with water releases flammable gases.

Precautionary statement(s)

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

P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.

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

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P335 + P334 Brush off loose particles from skin. Immerse in cool water/ wrap in wet bandages.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  
P402 + P404 Store in a dry place. Store in a closed container.  
P501 Dispose of contents/ container to an approved waste disposal plant.  
2.3 Hazards not otherwise classified (HNOC) or not covered by GHS  
Reacts violently with water.

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance: Tris(cyclopentadienyl)lanthanum(III)  
Synonyms : LaCp<sub>3</sub>  
Formula : C<sub>15</sub>H<sub>15</sub>La  
Molecular Weight : 334.19 g/mol  
CAS-No. : 1272-23-7  
EC-No. : 215-049-5  
No ingredients are hazardous according to OSHA criteria.  
No components need to be disclosed according to the applicable regulations

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## SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures  
General advice  
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.  
If inhaled  
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.  
In case of skin contact  
Wash off with soap and plenty of water. Consult a physician.  
In case of eye contact  
Flush eyes with water as a precaution.  
If swallowed  
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.  
4.2 Most important symptoms and effects, both acute and delayed  
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11  
4.3 Indication of any immediate medical attention and special treatment needed  
no data available

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## SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Dry powder

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Lanthanum oxides

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of

ignition. Evacuate personnel to safe areas.

For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wetbrushing

and place in container for disposal according to local regulations (see section 13). Do not flush with water.

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

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## **SECTION 7. HANDLING AND STORAGE**

7.1 Precautions for safe handling

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No

smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Never allow product to get in contact with water during storage.

Handle and store under inert gas. Over time, pressure may increase causing containers to burst

Handle and open

container with care. Air sensitive. Moisture sensitive.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved

under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without

touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after

use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to

the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type

N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the

sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and

approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

a) Appearance Form: solid

b) Odour no data available

c) Odour Threshold no data available

d) pH no data available

e) Melting point/range: 275 °C (527 °F) - dec.

f) Initial boiling point and boiling range  
no data available

g) Flash point 110 °C (230 °F) - closed cup

h) Evaporation rate no data available

i) Flammability (solid, gas) The substance or mixture is a flammable solid with the category 2.

j) Upper/lower flammability or explosive limits  
no data available

k) Vapour pressure no data available

l) Vapour density no data available

m) Relative density no data available

n) Water solubility no data available

o) Partition coefficient: noctanol/water  
no data available

p) Auto-ignition temperature  
no data available

q) Decomposition temperature  
no data available  
r) Viscosity no data available  
s) Explosive properties no data available  
t) Oxidizing properties no data available  
9.2 Other safety information  
no data available

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## **SECTION 10. STABILITY AND REACTIVITY**

10.1 Reactivity  
no data available  
10.2 Chemical stability  
Stable under recommended storage conditions.  
10.3 Possibility of hazardous reactions  
Reacts violently with water.  
10.4 Conditions to avoid  
Heat, flames and sparks. Extremes of temperature and direct sunlight. Exposure to moisture.  
10.5 Incompatible materials  
Reacts violently with water., Strong oxidizing agents  
10.6 Hazardous decomposition products  
Other decomposition products - no data available  
In the event of fire: see section 5.

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

11.1 Information on toxicological effects  
Acute toxicity  
no data available  
Inhalation: no data available  
Dermal: no data available  
no data available  
Skin corrosion/irritation  
no data available  
Serious eye damage/eye irritation  
no data available  
Respiratory or skin sensitisation  
no data available  
Germ cell mutagenicity  
no data available  
Carcinogenicity  
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.  
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.  
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.  
Reproductive toxicity  
no data available

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

RTECS: Not available

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

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## **SECTION 12. ECOLOGICAL INFORMATION**

### 12.1 Toxicity

no data available

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

no data available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

### 13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this

material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a

licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

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## **SECTION 14. TRANSPORT INFORMATION**

DOT (US)

UN number: 3395 Class: 4.3 Packing group: II

Proper shipping name: Organometallic substance, solid, water-reactive (Tris(η<sup>5</sup>-cyclopenta-2,4-dien-1-yl)lanthanum)

Marine pollutant: No

Poison Inhalation Hazard: No

IMDG

UN number: 3395 Class: 4.3 Packing group: II EMS-No: F-G, S-N

Proper shipping name: ORGANOMETALLIC SUBSTANCE, SOLID, WATER-REACTIVE (Tris(η5-cyclopenta-2,4-dien-1-yl)lanthanum)  
Marine pollutant: No  
IATA  
UN number: 3395 Class: 4.3 Packing group: II  
Proper shipping name: Organometallic substance, solid, water-reactive (Tris(η5-cyclopenta-2,4-dien-1-yl)lanthanum)

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## SECTION 15. REGULATORY INFORMATION

### SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the

threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### SARA 311/312 Hazards

#### Reactivity Hazard

#### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

#### Pennsylvania Right To Know Components

Tris(η5-cyclopenta-2,4-dien-1-yl)lanthanum

CAS-No.

1272-23-7

#### Revision Date

#### New Jersey Right To Know Components

Tris(η5-cyclopenta-2,4-dien-1-yl)lanthanum

CAS-No.

1272-23-7

#### Revision Date

#### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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## 16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.