

# Material Safety Data Sheet

Version:01

Revision Date 7/5/2025

Section 1. Product Information and Company Identification			
Product name	Lanthanum (III) chloride heptahydrate		
Mol. formula	LaCl <sub>3</sub> · 7H <sub>2</sub> O	CAS No.	10025-84-0
Mol.wt	371.37 g/mol		
Manufacturer name	Pioneers for laboratory chemicals		
Brand name	Piochem		
Address	Area 540, Industrial Zone 6 <sup>th</sup> October city Giza, Egypt.		
Website	www.piochem.com		
E-mail	info@piochem.com		
Phone number	+201225728304 , +201023932115		

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Corrosive to Metals, (Category 1)      H290: May be corrosive to metals.

Serious eye damage, (Category 1)      H318: Causes serious eye damage.

Skin sensitization, (Category 1)      H317: May cause an allergic skin reaction.

Long-term (chronic) aquatic hazard, (Category 2)      H411: Toxic to aquatic life with long lasting effects.

## 2.2 Label elements

### Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal Word

Danger

Hazard Statements

H290

May be corrosive to metals.

H317

May cause an allergic skin reaction.

H318

Causes serious eye damage.

H411

Toxic to aquatic life with long lasting effects.

Precautionary Statements

P234

Keep only in original packaging.

P261

Avoid breathing dust.

P273

Avoid release to the environment.

P280

Wear protective gloves/ eye protection/ face protection.

P302 + P352

IF ON SKIN: Wash with plenty of water.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements

none

### Reduced Labeling (<= 125 ml)

Pictogram



Signal Word

Danger

Hazard Statements

H318

Causes serious eye damage.

H317

May cause an allergic skin reaction.

Precautionary Statements

P261

Avoid breathing dust.

P280

Wear protective gloves/ eye protection/ face protection.

P302 + P352

IF ON SKIN: Wash with plenty of water.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements

none

## 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Formula :  $\text{LaCl}_3 \cdot 7\text{H}_2\text{O}$   
Molecular weight : 371,37 g/mol  
CAS-No. : 10025-84-0

Component	Classification	Concentration
<b>Lanthanum(III) chloride heptahydrate</b>		
CAS-No. 10025-84-0	Met. Corr. 1; Eye Dam. 1; Skin Sens. 1; Aquatic Chronic 2; H290, H318, H317, H411	<= 100 %

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

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## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: immediately make victim drink water (two glasses at most). 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

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given.

**5.2 Special hazards arising from the substance or mixture**

Hydrogen chloride gas

Lanthanum oxides

Not combustible.

Fire may cause evolution of:

Hydrogen chloride gas

Ambient fire may liberate hazardous vapours.

**5.3 Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

**5.4 Further information**

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

**6.2 Environmental precautions**

Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

**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**

For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities****Storage conditions**

No metal containers.

Tightly closed. Dry.

Recommended storage temperature see product label.

**Storage class**

Storage class (TRGS 510): 8A: Combustible, corrosive hazardous materials

**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****Ingredients with workplace control parameters****8.2 Exposure controls****Personal protective equipment****Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

**Skin protection**

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

**Body Protection**

protective clothing

**Respiratory protection**

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Control of environmental exposure**

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) Physical state                               | solid  |
| b) Color  | white  |
| c) Odor   | odorless   |
| d) Melting point/freezing point                 | Melting point: 91,0 °C - Elimination of water of crystallization                 |
| e) Initial boiling point and boiling range      | No data available  |
| f) Flammability (solid, gas)                    | No data available  |
| g) Upper/lower flammability or explosive limits | No data available  |
| h) Flash point                                  | does not flash   |
| i) Autoignition temperature                     | No data available  |
| j) Decomposition temperature                    | No data available  |
| k) pH   | ca.5,0 at 100,0 g/l at 25,0 °C   |
| l) Viscosity                                    | Viscosity, kinematic: No data available<br>Viscosity, dynamic: No data available |
| m) Water solubility                             | at 20,0 °C soluble   |
| n) Partition coefficient: n-octanol/water       | No data available  |
| o) Vapor pressure                               | No data available  |
| p) Density                                      | No data available  |
| Relative density                                | No data available  |
| q) Relative vapor density                       | No data available  |
| r) Particle characteristics                     | No data available  |
|   |  |
| s) Explosive properties                         | Not classified as explosive.   |
| t) Oxidizing properties                         | none   |

**9.2 Other safety information**

Bulk density	900 kg/m3
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**SECTION 10: Stability and reactivity****10.1 Reactivity**

No data available

**10.2 Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature) .

**10.3 Possibility of hazardous reactions**

Violent reactions possible with:

Strong acids

Strong oxidizing agents

**10.4 Conditions to avoid**

Exposure to moisture.

no information available

**10.5 Incompatible materials**

Metals

**10.6 Hazardous decomposition products**

In the event of fire: see section 5

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**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

LD50 Oral - Rat - 4.184 mg/kg

Remarks: (anhydrous substance)

(RTECS)

Inhalation: No data available

Dermal: No data available

**Skin corrosion/irritation**

Skin - Rabbit

Result: No skin irritation

Remarks: (ECHA)

The value is given in analogy to the following substances: Lanthanum(III) chloride

**Serious eye damage/eye irritation**

Eyes - Rabbit

Result: Irreversible effects on the eye

(OECD Test Guideline 405)

Remarks: The value is given in analogy to the following substances: Lanthanum(III) chloride

**Respiratory or skin sensitization**

Sensitisation test: - Mouse

Result: positive

May cause allergic skin reaction.

(OECD Test Guideline 429)

Remarks: The value is given in analogy to the following substances: Lanthanum(III) chloride

**Germ cell mutagenicity**

Test Type: Ames test

Test system: Escherichia coli

Result: negative

Remarks: (anhydrous substance)

(Lit.)

**Carcinogenicity**

**Reproductive toxicity**

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

**11.2 Additional Information****Endocrine disrupting properties****Product:**

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Symptoms and signs of poisoning are: , burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

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**SECTION 12: Ecological information****12.1 Toxicity**

Toxicity to fish	semi-static test LC50 - Cyprinus carpio (Carp) - > 5,0 mg/l - 504 h (OECD Test Guideline 204)
	semi-static test NOEC - Cyprinus carpio (Carp) - 0,46 mg/l - 504 h (OECD Test Guideline 204)
Toxicity to daphnia and other aquatic invertebrates	semi-static test NOEC - Daphnia magna (Water flea) - 0,1 mg/l - 21 h (OECD Test Guideline 202)
	semi-static test EC50 - Daphnia magna (Water flea) - 0,522 mg/l - 21 h (OECD Test Guideline 202)
Toxicity to algae	static test EC50 - Desmodesmus subspicatus (green algae) - 13,0 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to bacteria	static test EC10 - Pseudomonas putida - > 32,8 mg/l - 16 h (ISO 10712)

**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**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Endocrine disrupting properties****Product:**

Assessment

: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**12.7 Other adverse effects**

No data available

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**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

No data available

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**SECTION 14: Transport information****14.1 UN number**

ADR/RID: 3260

IMDG: 3260

IATA: 3260

**14.2 UN proper shipping name**

ADR/RID: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Lanthanum(III) chloride heptahydrate)

IMDG: CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Lanthanum(III) chloride heptahydrate)

IATA: Corrosive solid, acidic, inorganic, n.o.s. (Lanthanum(III) chloride heptahydrate)

**14.3 Transport hazard class(es)**

ADR/RID: 8

IMDG: 8

IATA: 8

**14.4 Packaging group**

ADR/RID: III

IMDG: III

IATA: III

**14.5 Environmental hazards**

ADR/RID: yes

IMDG Marine pollutant: yes

IATA: no

**14.6 Special precautions for user**

Tunnel restriction code : (E)

Further information : No data available

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**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

**National legislation**

Seveso III: Directive 2012/18/EU of the E2 ENVIRONMENTAL HAZARDS  
European Parliament and of the Council  
on the control of major-accident hazards  
involving dangerous substances.

**Other regulations**

Take note of Dir 94/33/EC on the protection of young people at work.

**15.2 Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out

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**SECTION 16: Other information****Full text of H-Statements**

H290	May be corrosive to metals.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H411	Toxic to aquatic life with long lasting effects.