

**Lanthanum(III) nitrate.6aq a.r.**

Revision: 08.09.2025

Product code: AC14.00538

Page 1 of 12

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Lanthanum(III) nitrate.6aq a.r.

CAS No: 10277-43-7

EC No: 233-238-0

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Reagents and laboratory chemicals

Only for laboratory and analysis purposes.

**Uses advised against**

Do not use for private purposes (household).

**1.3. Details of the supplier of the safety data sheet****Details of the supplier of the safety data sheet**

Company name: AnalytiChem Services, Unipessoal, Lda

Street: Rua de Júlio Dinis 676 7º

Place: N-4050-320 Porto

Telephone: +351 226002917

E-mail: info@analytichem.com

Contact person: SDS service department

E-mail: SDS@analytichem.com

Internet: www.analytichem.com

Responsible Department: SDS service department

**Supplier or manufacturer details**

Company name: AnalytiChem Belgium NV

Street: Industriezone "De Arend" 2

Place: B-8210 Zedelgem

Telephone: +32 50 28 83 20

E-mail: info.be@analytichem.com

Contact person: SDS service department

E-mail: SDS@analytichem.com

Responsible Department: AnalytiChem:

EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20

EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200

EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848

UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500

USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378

Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701

Australia: ORE Research &amp; Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333

+44 20 3807 3798 (CHEMTREC)

**1.4. Emergency telephone number:****Further Information**

A registration number is not available for this substance as the substance or its use are exempted from

**Lanthanum(III) nitrate.6aq a.r.**

Revision: 08.09.2025

Product code: AC14.00538

Page 2 of 12

registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Ox. Sol. 2; H272  
Eye Dam. 1; H318  
Aquatic Acute 1; H400  
Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008**

Signal word: Danger

Pictograms:

**Hazard statements**

H272 May intensify fire; oxidiser.  
H318 Causes serious eye damage.  
H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

P221 Take any precaution to avoid mixing with combustibles.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P313 Get medical advice/attention.

**2.3. Other hazards**

No data available

**SECTION 3: Composition/information on ingredients****3.1. Substances**

Sum formula:  $\text{La}(\text{NO}_3)_3 \cdot 6 \text{H}_2\text{O}$   
Molecular weight: 433,02 g/mol

**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
10277-43-7	lanthannitrate hexahydrate			100 %
	233-238-0			
	Ox. Sol. 2, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1; H272 H318 H400 H410			

Full text of H and EUH statements: see section 16.

**Lanthanum(III) nitrate.6aq a.r.**

Revision: 08.09.2025

Product code: AC14.00538

Page 3 of 12

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
10277-43-7	233-238-0	lanthannitrate hexahydrate	100 %
		dermal: LD50 = > 2000 mg/kg; oral: LD50 = 4500 mg/kg	

**Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

No data available

**After inhalation**

Provide fresh air.

**After contact with skin**

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water.

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

Consult an ophthalmologist.

**After ingestion**

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

**4.2. Most important symptoms and effects, both acute and delayed**

Methaemoglobinaemia

Irritant

corrosive

Corneal opacity.

Risk of serious damage to eyes.

**4.3. Indication of any immediate medical attention and special treatment needed**

No data available

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

no restriction

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

Non-combustible solids

Oxidizing

Hazardous combustion products

In case of fire may be liberated:

Nitrogen oxides (NOx)

**5.3. Advice for firefighters**

Do not inhale explosion and combustion gases.

**Lanthanum(III) nitrate.6aq a.r.**

Revision: 08.09.2025

Product code: AC14.00538

Page 4 of 12

Avoid contact with skin, eyes and clothes.

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Consult an expert

Do not breathe dust/fume/gas/mist/vapours/spray.

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up****For containment**

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Take up carefully when dry. Take up dust-free and set down dust-free.

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Handle and open container with care.

Provide adequate ventilation.

Avoid contact with skin, eyes and clothes.

Avoid dust formation. Do not breathe dust.

**Advice on protection against fire and explosion**

Keep away from combustible material.

**Advice on general occupational hygiene**

Take off contaminated clothing.

**Lanthanum(III) nitrate.6aq a.r.**

Revision: 08.09.2025

Product code: AC14.00538

Page 5 of 12

Wash hands before breaks and after work.

When using do not eat or drink.

**Further information on handling**

Take off contaminated clothing and wash it before reuse.

Wash hands before breaks and after work.

Draw up and observe skin protection programme.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed and dry.

**Hints on joint storage**

Keep away from combustible material.

Take national regulations into account.

**Further information on storage conditions**

Protect from direct sunlight.

**7.3. Specific end use(s)**

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****PNEC values**

CAS No	Substance	
Environmental compartment		Value
10277-43-7	lanthannitrate hexahydrate	
Freshwater		0,0006 mg/l
Freshwater (intermittent releases)		0,00245 mg/l
Marine water		0,00006 mg/l
Freshwater sediment		13,2 mg/kg
Marine sediment		1,32 mg/kg
Micro-organisms in sewage treatment plants (STP)		7,08 mg/l
Soil		0,93 mg/kg

**8.2. Exposure controls****Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Suitable eye protection: goggles.

**Hand protection**

Suitable examples are gloves of KCL GmbH, D-36124 Eichenzell, e-mail: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) with the following specification (test according to EN 374):

By long-term hand contact

Trade name/designation KCL 741 Dermatrill® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

Wearing time with permanent contact: > 480 min

**Lanthanum(III) nitrate.6aq a.r.**

Revision: 08.09.2025

Product code: AC14.00538

Page 6 of 12

By short-term hand contact  
Trade name/designation KCL 741 Dermatril® L  
Recommended material: NBR (Nitrile rubber) 0,11 mm  
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. 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 EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

**Skin protection**

Wear suitable protective clothing.  
Take off immediately all contaminated clothing.  
Wash hands before breaks and after work.  
The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

**Respiratory protection**

Respiratory protection necessary at: dust formation  
Filtering device with filter or ventilator filtering device of 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.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:	solid
Colour:	white
Odour:	characteristic
Odour threshold:	No data available
Melting point/freezing point:	69,9 °C
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	not determined
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH-Value (at 25 °C):	~3,4 (50 g/l)
Viscosity / kinematic:	No data available
Water solubility: (at 20 °C)	1230-1580 g/l
Solubility in other solvents not determined	
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	not determined
Dispersion stability:	No data available
Vapour pressure:	No data available
Vapour pressure:	No data available

**Lanthanum(III) nitrate.6aq a.r.**

Revision: 08.09.2025

Product code: AC14.00538

Page 7 of 12

Density:	No data available
Bulk density:	1300 kg/m <sup>3</sup>
Relative vapour density:	not determined
Particle characteristics:	No data available

**9.2. Other information****Information with regard to physical hazard classes**

## Explosive properties

No data available

## Sustained combustibility:

No data available

## Self-ignition temperature

Solid:

not determined

Gas:

not applicable

## Oxidizing properties

The product is: oxidising, Oxidising.

**Other safety characteristics**

## Evaporation rate:

not determined

## Solvent separation test:

No data available

## Solvent content:

No data available

## Solid content:

100%

## Sublimation point:

No data available

## Softening point:

No data available

## Pour point:

No data available

No data available

## Viscosity / dynamic:

No data available

## Flow time:

No data available

**Further Information**

No data available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

May intensify fire; oxidiser.

**10.2. Chemical stability**

The substance is chemically stable under recommended conditions of storage, use and temperature.

**10.3. Possibility of hazardous reactions**

Combustible substance

Reducing agent

**10.4. Conditions to avoid**

Heat

**10.5. Incompatible materials**

No data available

**10.6. Hazardous decomposition products**

In case of fire may be liberated:

SECTION 5: Firefighting measures

**Further information**

No data available

**SECTION 11: Toxicological information****11.1. Information on hazard classes**

**Lanthanum(III) nitrate.6aq a.r.**

Revision: 08.09.2025

Product code: AC14.00538

Page 8 of 12

**Toxicokinetics, metabolism and distribution**

No data available

**Acute toxicity**

Based on available data, the classification criteria are not met.

Mucous membrane irritation in the mouth, throat, esophagus and gastrointestinal tract.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
10277-43-7	lanthannitrate hexahydrate				
	oral	LD50 4500 mg/kg	Rat	Industrial Hygiene and Occupational Medi	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2013)	OECD Guideline 402

**Irritation and corrosivity**

Serious eye damage/eye irritation: Causes serious eye damage.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Upon skin contact: slight irritation.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Information on likely routes of exposure**

No data available

**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

No data available

**Practical experience**

No data available

**11.2. Information on other hazards****Endocrine disrupting properties**

No data available

**Other information**

No data available

**Further information**

Methaemoglobinaemia

Irritant

corrosive

Corneal opacity.



## Lanthanum(III) nitrate.6aq a.r.

Revision: 08.09.2025

Product code: AC14.00538

Page 9 of 12

Risk of serious damage to eyes.

## SECTION 12: Ecological information

## 12.1. Toxicity

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
10277-43-7	lanthannitrate hexahydrate					
	Acute fish toxicity	LC50 0,42 mg/l	96 h	Oncorhynchus mykiss	Study report (2014)	OECD Guideline 203
	Acute algae toxicity	ErC50 0,9 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (2014)	OECD Guideline 201
	Acute crustacea toxicity	EC50 0,043 mg/l	48 h	other aquatic crustacea: Daphnia carinata	Chemosphere 41 (10): 1669-1674 (2000)	OECD Guideline 202
	Fish toxicity	NOEC 0,26 mg/l	21 d	Cyprinus carpio	Study report (1995)	OECD Guideline 204
	Crustacea toxicity	NOEC 0,03 mg/l	21 d	other aquatic crustacea: Daphnia carinata	Chemosphere 41 (10): 1669-1674 (2000)	OECD Guideline 211
	Acute bacteria toxicity	EC50 221 mg/l ( )	3 h	activated sludge of a predominantly domestic sewage	Study report (2009)	OECD Guideline 209

## 12.2. Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

## 12.3. Bioaccumulative potential

## BCF

CAS No	Chemical name	BCF	Species	Source
10277-43-7	lanthannitrate hexahydrate	12000	Corophium volutator	Environmental Toxicology

## 12.4. Mobility in soil

No data available

## 12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of UK REACH.

## 12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

## 12.7. Other adverse effects

No data available

## Further information

Avoid release to the environment.

Do not allow to enter into surface water or drains.

## SECTION 13: Disposal considerations

## 13.1. Waste treatment methods

## Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

**Lanthanum(III) nitrate.6aq a.r.**

Revision: 08.09.2025

Product code: AC14.00538

Page 10 of 12

Do not empty into drains.

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

**SECTION 14: Transport information****Land transport (ADR/RID)**

<b>14.1. UN number or ID number:</b>	UN 1477
<b>14.2. UN proper shipping name:</b>	NITRATES, INORGANIC, N.O.S. (lanthannitrate hexahydrate)
<b>14.3. Transport hazard class(es):</b>	5.1
<b>14.4. Packing group:</b>	II
Hazard label:	5.1
Classification code:	O2
Special Provisions:	511
Limited quantity:	1 kg
Excepted quantity:	E2
Transport category:	2
Hazard No:	50
Tunnel restriction code:	E

**Inland waterways transport (ADN)**

<b>14.1. UN number or ID number:</b>	UN 1477
<b>14.2. UN proper shipping name:</b>	NITRATES, INORGANIC, N.O.S. (lanthannitrate hexahydrate)
<b>14.3. Transport hazard class(es):</b>	5.1
<b>14.4. Packing group:</b>	II
Hazard label:	5.1
Classification code:	O2
Special Provisions:	511
Limited quantity:	1 kg
Excepted quantity:	E2

**Marine transport (IMDG)**

<b>14.1. UN number or ID number:</b>	UN 1477
<b>14.2. UN proper shipping name:</b>	NITRATES, INORGANIC, N.O.S. (lanthannitrate hexahydrate)
<b>14.3. Transport hazard class(es):</b>	5.1
<b>14.4. Packing group:</b>	II
Hazard label:	5.1
Special Provisions:	-
Limited quantity:	1 kg
Excepted quantity:	E2
EmS:	F-A, S-Q
Segregation group:	heavy metals and their salts (including their organometallic compounds)

**Air transport (ICAO-TI/IATA-DGR)**

<b>14.1. UN number or ID number:</b>	UN 1477
<b>14.2. UN proper shipping name:</b>	NITRATES, INORGANIC, N.O.S. (lanthannitrate hexahydrate)
<b>14.3. Transport hazard class(es):</b>	5.1
<b>14.4. Packing group:</b>	II
Hazard label:	5.1
Special Provisions:	A3 A803
Limited quantity Passenger:	2.5 kg
Passenger LQ:	Y544
Excepted quantity:	E2

**Lanthanum(III) nitrate.6aq a.r.**

Revision: 08.09.2025

Product code: AC14.00538

Page 11 of 12

IATA-packing instructions - Passenger:	558
IATA-max. quantity - Passenger:	5 kg
IATA-packing instructions - Cargo:	562
IATA-max. quantity - Cargo:	25 kg

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS:	Yes
Danger releasing substance:	lanthannitrate hexahydrate

**14.6. Special precautions for user**

Warning: Oxidising substances.

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

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

Information according to Directive 2012/18/EU (SEVESO III):	P8 OXIDISING LIQUIDS AND SOLIDS
Additional information:	E1

**National regulatory information**

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D):	2 - obviously hazardous to water

**15.2. Chemical safety assessment**

For this substance a chemical safety assessment has not been carried out.

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 9,12.

**Abbreviations and acronyms**

Ox. Sol. 2: Oxidising solids, hazard category 2  
Eye Dam. 1: Serious eye damage, hazard category 1  
Aquatic Acute 1: Hazardous to the aquatic environment, hazard category: Acute 1  
Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard category: Chronic 1  
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  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%

**Relevant H and EUH statements (number and full text)**

H272	May intensify fire; oxidiser.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

**Lanthanum(III) nitrate.6aq a.r.**

Revision: 08.09.2025

Product code: AC14.00538

Page 12 of 12

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

Provide appropriate information, instructions and training to users