

**Lanthanum nitrate solution 0.1 mol/l - 0.3 N solution**

Revision: 22.01.2024

Product code: 26624

Page 1 of 11

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

Lanthanum nitrate solution 0.1 mol/l - 0.3 N solution

UFI: WTQC-J2A4-W00T-900V

**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**

Company name:	AnalytiChem GmbH
	ACD
Street:	Stempelstraße 6
Place:	D-47167 Duisburg
Telephone:	0203/5194-0
E-mail:	info@analytichem.de
Contact person:	Abteilung Produktsicherheit
E-mail:	produktsicherheit@analytichem.de
Internet:	www.analytichem.de
Responsible Department:	Abteilung Produktsicherheit

Telefax: 0203/5194-290

Telephone: 0203/5194-107/117

**1.4. Emergency telephone number:**

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTRAC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

**Further Information**

This product is a mixture. REACH Registration Number see section 3.

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

Eye Dam. 1; H318

Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008****Hazard components for labelling**

lanthanum nitrate hexahydrate

Signal word: Danger

Pictograms:

**Hazard statements**

H318

Causes serious eye damage.

**Lanthanum nitrate solution 0.1 mol/l - 0.3 N solution**

Revision: 22.01.2024

Product code: 26624

Page 2 of 11

H411 Toxic to aquatic life with long lasting effects.

**Precautionary statements**

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.  
P310 Immediately call a POISON CENTER/doctor.  
P391 Collect spillage.

**2.3. Other hazards**

No data available

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Chemical characterization**

Mixtures in aqueous solution

**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
Classification (Regulation (EC) No 1272/2008)				
10277-43-7	lanthannitrate hexahydrate			1 - < 5 %
	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.

**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	1 - < 5 %
	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.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Lanthanum nitrate solution 0.1 mol/l - 0.3 N solution

Revision: 22.01.2024

Product code: 26624

Page 3 of 11

Call a physician immediately.

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

Irritant

#### **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 liquids

Hazardous combustion products

In case of fire may be liberated:

Nitrogen oxides (NOx)

Metal oxide smoke, toxic

#### **5.3. Advice for firefighters**

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

Avoid contact with skin, eyes and clothes.

#### **Additional information**

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

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

## 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.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

##### **For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Lanthanum nitrate solution 0.1 mol/l - 0.3 N solution

Revision: 22.01.2024

Product code: 26624

Page 4 of 11

#### 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**  
Do not breathe vapour/aerosol.  
Read label before use.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

**Further information on handling**

Draw up and observe skin protection programme.  
Wash hands and face before breaks and after work and take a shower if necessary.  
Take off immediately all contaminated clothing and wash it before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

**Requirements for storage rooms and vessels**

Store in a dry place.

**Hints on joint storage**

national regulations

**Further information on storage conditions**

Keep container tightly closed.

### 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

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Lanthanum nitrate solution 0.1 mol/l - 0.3 N solution

Revision: 22.01.2024

Product code: 26624

Page 5 of 11

#### **8.2. Exposure controls**

##### **Appropriate engineering controls**

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

Provide adequate ventilation as well as local exhaustion at critical locations.

##### **Individual protection measures, such as personal protective equipment**

###### **Eye/face protection**

Suitable eye protection: goggles.

###### **Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

###### **By long-term hand contact**

Trade name/designation KCL 741 Dermatril® L

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

Wearing time with permanent contact: > 480 min

###### **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.

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: aerosol or mist formation

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:	Liquid
Colour:	colourless
Odour:	odourless

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Lanthanum nitrate solution 0.1 mol/l - 0.3 N solution

Revision: 22.01.2024

Product code: 26624

Page 6 of 11

Odour threshold:	No data available
Melting point/freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	No data available
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH-Value (at 20 °C):	4,4
Viscosity / kinematic:	No data available
Water solubility:	No data available
Solubility in other solvents	
not determined	
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Dispersion stability:	No data available
Vapour pressure:	No data available
Vapour pressure:	not determined
Density:	1,027 g/cm <sup>3</sup>
Relative density:	No data available
Bulk density:	No data available
Relative vapour density:	No data available
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:

No data available

Gas:

No data available

###### Oxidizing properties

No data available

##### Other safety characteristics

###### Evaporation rate:

No data available

###### Solvent separation test:

No data available

###### Solvent content:

No data available

###### Solid content:

0

###### Sublimation point:

No data available

###### Softening point:

No data available

###### Pour point:

No data available

###### 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

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Lanthanum nitrate solution 0.1 mol/l - 0.3 N solution

Revision: 22.01.2024

Product code: 26624

Page 7 of 11

#### 10.1. Reactivity

No data available

#### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

#### 10.3. Possibility of hazardous reactions

No data available

#### 10.4. Conditions to avoid

No data available

#### 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 as defined in Regulation (EC) No 1272/2008

##### **Toxicokinetics, metabolism and distribution**

There are no data available on the mixture itself.

##### **Acute toxicity**

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

##### **ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

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

##### **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.

**Lanthanum nitrate solution 0.1 mol/l - 0.3 N solution**

Revision: 22.01.2024

Product code: 26624

Page 8 of 11

**Aspiration hazard**

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

**Information on likely routes of exposure**

There are no data available on the mixture itself.

**Specific effects in experiment on an animal**

There are no data available on the mixture itself.

**Additional information on tests**

There are no data available on the mixture itself.

**Practical experience**

There are no data available on the mixture itself.

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

There are no data available on the mixture itself.

**Other information**

There are no data available on the mixture itself.

**Further information**

Irritant

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

There are no data available on the mixture itself.

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 sewag	Study report (2009)	OECD Guideline 209

**12.2. Persistence and degradability**

There are no data available on the mixture itself.

**12.3. Bioaccumulative potential**

There are no data available on the mixture itself.

**BCF**

CAS No	Chemical name	BCF	Species	Source
10277-43-7	lanthannitrate hexahydrate	12000	Corophium volutator	Environmental Toxicology and Chemistry 2009, 28, 221-226

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Lanthanum nitrate solution 0.1 mol/l - 0.3 N solution

Revision: 22.01.2024

Product code: 26624

Page 9 of 11

#### 12.4. Mobility in soil

There are no data available on the mixture itself.

#### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 12.7. Other adverse effects

Discharge into the environment must be avoided.

#### **Further information**

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.

Do not mix with other wastes.

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)**

##### 14.1. UN number or ID number:

UN 3082

##### 14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(lanthanum nitrate hexahydrate)

##### 14.3. Transport hazard class(es):

9

##### 14.4. Packing group:

III

Hazard label:

9

Classification code:

M6

Special Provisions:

274 335 375 601

Limited quantity:

5 L

Excepted quantity:

E1

Transport category:

3

Hazard No:

90

Tunnel restriction code:

-

#### **Inland waterways transport (ADN)**

##### 14.1. UN number or ID number:

UN 3082

##### 14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(lanthanum nitrate hexahydrate)

##### 14.3. Transport hazard class(es):

9

##### 14.4. Packing group:

III

Hazard label:

9

Classification code:

M6

Special Provisions:

274 335 375 601

Limited quantity:

5 L

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Lanthanum nitrate solution 0.1 mol/l - 0.3 N solution

Revision: 22.01.2024

Product code: 26624

Page 10 of 11

Excepted quantity:	E1
<b>Marine transport (IMDG)</b>	
<b>14.1. UN number or ID number:</b>	UN 3082
<b>14.2. UN proper shipping name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (lanthannitrate hexahydrate)
<b>14.3. Transport hazard class(es):</b>	9
<b>14.4. Packing group:</b>	III
Hazard label:	9
Special Provisions:	274, 335, 969
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-F
<b>Air transport (ICAO-TI/IATA-DGR)</b>	
<b>14.1. UN number or ID number:</b>	UN 3082
<b>14.2. UN proper shipping name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (lanthannitrate hexahydrate)
<b>14.3. Transport hazard class(es):</b>	9
<b>14.4. Packing group:</b>	III
Hazard label:	9
Special Provisions:	A97 A158 A197
Limited quantity Passenger:	30 kg G
Passenger LQ:	Y964
Excepted quantity:	E1
IATA-packing instructions - Passenger:	964
IATA-max. quantity - Passenger:	450 L
IATA-packing instructions - Cargo:	964
IATA-max. quantity - Cargo:	450 L

#### **14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS:	Yes
Danger releasing substance:	lanthannitrate hexahydrate

#### **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**

Restrictions on use (REACH, annex XVII):

Entry 3

Information according to Directive 2012/18/EU (SEVESO III):

E2 Hazardous to the Aquatic Environment

##### **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):

1 - slightly hazardous to water

#### **15.2. Chemical safety assessment**

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

### SECTION 16: Other information

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Lanthanum nitrate solution 0.1 mol/l - 0.3 N solution

Revision: 22.01.2024

Product code: 26624

Page 11 of 11

#### Changes

This data sheet contains changes from the previous version in section(s): 1,9.

#### 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%

#### Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Eye Dam. 1; H318	Calculation method
Aquatic Chronic 2; H411	Calculation method

#### 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.

H411 Toxic to aquatic life with long lasting effects.

#### 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

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*