

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
Trade name : lanthanum oxide
Chemical name : lanthanum oxide
EC-No. : 215-200-5
CAS-No. : 1312-81-8
REACH registration No : 01-2119487300-44-0009

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Raw material for chemistry
Industrial use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

German Trading Service GmbH
Lauenburger Landstraße 78
21039 Börnsen - Germany
T +49 40 739115 - F +49 40 7387059
www.gts-hamburg.de

Email competent person

sds@kft.de

1.4. Emergency telephone number

Emergency number : National Health Service (NHS)
24 hour national number consumer
England and Scotland: 111
Wales: 0845 46 47
Northern Ireland: call your local General Practitioner

Call 999 if there is a life-threatening incident.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Lanthanum oxide

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%
lanthanum oxide	(CAS-No.) 1312-81-8 (EC-No.) 215-200-5 (REACH-no) 01-2119487300-44-0009	-

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: In case of doubt or persistent symptoms, consult always a physician. Take off immediately all contaminated clothing.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a physician.
First-aid measures after skin contact	: Wash skin with plenty of water. Get medical advice if skin irritation persists.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Consult an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth. Call a poison center or a doctor if you feel unwell.

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

No additional information available

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: The product itself does not burn. Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: Strong water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released. Metal oxides.
--	--

5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses. Dispose of in accordance with relevant local regulations. Disposal must be done according to official regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area.
Measures in case of dust release	: Avoid dust formation. Provide adequate ventilation to minimize dust concentrations.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
----------------------	---

6.2. Environmental precautions

Prevent entry to sewers and public waters.

Lanthanum oxide

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Minimise generation of dust. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.
- Other information : Shovel into suitable and closed container for disposal. Disposal must be done according to official regulations.

6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Potential dust explosion hazard.
- Precautions for safe handling : Ensure good ventilation of the work station. Keep away from any flames or sparking source. Precautionary measures fire. Avoid dust formation. Wear personal protective equipment.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Protect from moisture. Store in a well-ventilated place. Keep cool.
- Incompatible materials : Water, humidity.
- Heat and ignition sources : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Information about storage in one common storage facility : Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

lanthanum oxide (1312-81-8)	
United Kingdom - Occupational Exposure Limits	
	Observe general threshold limit for dust.

lanthanum oxide (1312-81-8)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	8.75 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	61.5 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	5.25 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	18.26 mg/m ³
Long-term - systemic effects, dermal	5.25 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	10 mg/l
PNEC aqua (marine water)	1 mg/l
PNEC aqua (intermittent, freshwater)	1 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	15.5 mg/kg dwt

Lanthanum oxide

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

PNEC sediment (marine water)	15.5 mg/kg dwt
PNEC (Soil)	
PNEC soil	18.9 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	156 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:					
Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Chloroprene rubber (CR)	6 (> 480 minutes)	0,5	No additional information available	EN ISO 374
Disposable gloves	Butyl rubber	6 (> 480 minutes)	0,7	No additional information available	EN ISO 374
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,4	No additional information available	EN ISO 374

Eye protection:
In case of dust production: protective goggles. EN 166

Skin and body protection:
Wear suitable protective clothing. EN 340. EN ISO 13982

Respiratory protection:			
Not required for normal conditions of use. Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust. . In case of unintentional release of substance, exceeding the occupational exposure limit value			
Device	Filter type	Condition	Standard
Dust mask	Type P2	Short term exposure, Dust protection	EN 143, EN 149

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline powder.
Colour	: white.
Odour	: odourless.
Odour threshold	: Not applicable

Lanthanum oxide

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

pH	: No data available
Relative evaporation rate (butylacetate=1)	: Not applicable
Melting point	: > 400 °C (OECD 102 method)
Freezing point	: Not applicable
Boiling point	: > 400 °C (OECD 103 method)
Flash point	: Not applicable
Auto-ignition temperature	: > 400 °C (Test method EU A.16)
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not flammable
Vapour pressure	: Not applicable
Relative vapour density at 20 °C	: Not applicable
Relative density	: No data available
Density	: 6.41 g/cm ³ (20 °C; (OECD 109 method))
Solubility	: Water: 0.07 mg/l (20 °C; (OECD 105 method))
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosive properties	: Product is not explosive. Test method EU A.14.
Oxidising properties	: Non oxidizing. Test method EU A.17.
Explosive limits	: No data available

9.2. Other information

Other properties : Hygroscopic.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reacts violently with water. React in contact of acids. Potential dust explosion hazard from airborne release.

10.4. Conditions to avoid

heat. Moisture.

10.5. Incompatible materials

Acids.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

lanthanum oxide (1312-81-8)	
LD50 oral rat	> 10000 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg bodyweight
LC50 Inhalation - Rat (Dust/Mist)	> 5.3 mg/l/4h (OECD 403 method)

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: In animal experiments (rabbit): no irritant effect

Lanthanum oxide

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: In animal experiments (rabbit): no irritant effect
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: No sensitizing effect known Guinea pig
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: Ames-test: negative
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Not relevant)

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Based on available data, the classification criteria are not met)

lanthanum oxide (1312-81-8)	
LC50 fish 1	> 100 mg/l (96 h; Brachydanio rerio (zebra-fish); (OECD 203 method))
EC50 Daphnia 1	> 100 mg/l (48 h; Daphnia magna; (OECD 202 method))
NOEC chronic crustacea	≥ 100 mg/l (21 d; Daphnia magna; (OECD 211 method))

12.2. Persistence and degradability

lanthanum oxide (1312-81-8)	
Persistence and degradability	Not applicable for inorganic substances.

12.3. Bioaccumulative potential

lanthanum oxide (1312-81-8)	
Bioaccumulative potential	Not applicable for inorganic substances.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

lanthanum oxide (1312-81-8)	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Disposal must be done according to official regulations. European waste catalogue. Do not dispose of with domestic waste. Do not discharge into drains or the environment.
-------------------------	--

lanthanum oxide

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Product/Packaging disposal recommendations : Do not re-use empty containers without proper cleaning or reconditioning.
European List of Waste (LoW) code : 06 03 00 - wastes from the MFSU of salts and their solutions and metallic oxides

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

lanthanum oxide is not on the REACH Candidate List

lanthanum oxide is not on the REACH Annex XIV List

lanthanum oxide is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

lanthanum oxide is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Other information, restriction and prohibition regulations : A safety data sheet is not required for this product under Article 31 of REACH. This Product Safety Information Sheet has been created on a voluntary basis.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

Lanthanum oxide

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 16: Other information

Indication of changes:

No change required according to maintenance check.

Abbreviations and acronyms:

DNEL	Derived-No Effect Level
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF	Bioconcentration factor
CAS	Chemical Abstract Service
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
EC50	Median effective concentration
LD50	Median lethal dose
IATA	International Air Transport Association
LC50	Median lethal concentration
PBT	Persistent Bioaccumulative Toxic
SDS	Safety Data Sheet
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
vPvB	Very Persistent and Very Bioaccumulative
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IMDG	International Maritime Dangerous Goods
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
ATE	Acute Toxicity Estimate
DMEL	Derived Minimal Effect level
IARC	International Agency for Research on Cancer
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
STP	Sewage treatment plant
TLM	Median Tolerance Limit

Data sources : IUCLID-Dossier from ECHA.
Department issuing data : KFT Chemieservice GmbH
specification sheet: Im Leuschnerpark, 3 64347 Griesheim
Germany

Phone: +49 6155-8981-400 Fax: +49 6155 8981-500
Safety Data Sheet Service: +49 6155 8981-522

Contact person : Dr. Andreas Kretzschmar

KFT SDS EU 00

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.