

According to REACH Regulations (EC) 1907/2006 and (EU) 2020/878

## 1. Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Product code : GK5085  
 Product name : Cerium(III) nitrate hexahydrate  
 CAS number : 10294-41-4  
 EINECS : 233-297-2  
 Physical form : solid, substance  
 REACH : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

PC21: Laboratory chemicals.

### 1.3 Details of the supplier of the safety data sheet

|              |                              |           |  |
|--------------|------------------------------|-----------|--|
| Company name | : Glentham Life Sciences Ltd | Telephone | : +44 (0) 1225 667 798                                     |
|              | Unit 5 Leafield Way          | Fax       | : +44 (0) 2033 978 909                                     |
|              | Corsham SN13 9SW             | Email     | : <a href="mailto:info@glentham.com">info@glentham.com</a> |
|              | United Kingdom               | Web       | : <a href="http://www.glentham.com">www.glentham.com</a>   |

### 1.4 Emergency telephone number

Emergency telephone : NHS Direct 111 (UK, 24 hours), 112 (EU, 24 Hours), +44 (0) 1225 667 798 (09.00 – 17.00 GMT) number

## 2. Hazards identification

### 2.1 Classification of the substance or mixture

Classification under CLP according to (EC) 1272/2008

H272 Ox. Sol. 2  
 H318 Eye Dam. 1

### 2.2 Label elements

Label elements under CLP according to (EC) 1272/2008

#### Pictograms



GHS03 GHS05

#### Signal words

Danger

#### Hazard statements

H272 May intensify fire: oxidizer  
 H318 Causes serious eye damage

#### Precautionary statements

P220 Keep away from clothing and other combustible materials.  
 P280 Wear protective gloves/protective clothing/eye protection/face 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.

### 2.3 Other hazards

#### PBT

This substance is not identified as a PBT substance.

## 3.0 Composition/information on ingredients

### 3.1 Substances

| Name                            | Identifier  | %     | Classification                       |
|---------------------------------|---|-------|--------------------------------------|
| Cerium(III) nitrate hexahydrate | CAS: 10294-41-4<br>EC: 233-297-2<br>REACH: Not applicable | 99.5% | H272, Ox. Sol. 2<br>H318, Eye Dam. 1 |

## 4. First aid measures

### 4.1 Description of first aid measures

|              |  |
|--------------|--|
| Skin contact | Consult a doctor. Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. |
| Eye contact  | Consult a doctor. Bathe the eye with running water for 15 minutes.   |
| Ingestion    | Consult a doctor. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Wash out mouth with water.              |
| Inhalation   | Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.   |

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

|                             |  |
|-----------------------------|--|
| Skin contact                | There may be irritation and redness at the site of contact. There may be mild irritation at the site of contact.         |
| Eye contact                 | The eyes may water profusely. There may be irritation and redness.   |
| Ingestion                   | There may be soreness and redness of the mouth and throat.   |
| Inhalation                  | Exposure may cause coughing or wheezing. There may be irritation of the throat with a feeling of tightness in the chest. |
| Delayed / immediate effects | Delayed effects can be expected after long-term exposure. Immediate effects can be expected after short-term exposure.   |

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

#### Immediate / special treatment

Do not induce vomiting. Eye bathing equipment should be available on the premises.

## 5. Fire-fighting measures

### 5.1 Extinguishing media

Alcohol or polymer foam. Carbon dioxide. Dry chemical powder. Suitable extinguishing media for the surrounding fire should be used. Water spray.

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

#### Exposure hazards

In combustion emits toxic fumes. Oxidising.

### 5.3 Advice for fire-fighters

Wear protective clothing to prevent contact with skin and eyes. Wear self-contained breathing apparatus.

## 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### Personal precautions

Do not create dust. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Remove all incompatible materials as outlined in section 10 of SDS. Refer to section 8 of SDS for personal protection details.

### 6.2 Environmental precautions

Do not discharge into drains or rivers.

### 6.3 Methods and material for containment and cleaning up

#### Clean-up procedures

Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

## 6.4 Reference to other sections

Refer to section 8 of SDS.

## 7. Handling and storage

### 7.1 Precautions for safe handling

#### Handling requirements

Avoid direct contact with the substance. Avoid the formation or spread of dust in the air. Do not handle in a confined space. Ensure there is exhaust ventilation of the area. Ensure there is sufficient ventilation of the area.

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

#### Storage conditions

Avoid contact with water or humidity. Avoid incompatible materials and conditions - see section 10 of SDS. Keep container tightly closed. Store in cool, well ventilated area.

### 7.3 Specific end use(s)

No data available.

## 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Workplace exposure limits

No workplace exposure limit control parameters set

### 8.2 Exposure controls

|                        |  |
|------------------------|--|
| Engineering measures   | Ensure there is exhaust ventilation of the area. Ensure there is sufficient ventilation of the area.                           |
| Respiratory protection | Respiratory protective device with particle filter. Self-contained breathing apparatus must be available in case of emergency. |
| Hand protection        | Protective gloves.   |
| Eye protection         | Ensure eye bath is to hand. Safety glasses.  |
| Skin protection        | Protective clothing.   |

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|   |                    |
|---|--------------------|
| Physical state                                    | Solid              |
| Colour  | White              |
| Odour   | No data available. |
| Melting point/Freezing point                      | No data available. |
| Boiling point/initial boiling point/boiling range | No data available. |
| Flammability                                      | No data available. |
| Lower/Upper explosion limit                       | No data available. |
| Flash Point                                       | No data available. |
| Auto-ignition temperature                         | No data available. |
| Decomposition temperature                         | No data available. |
| pH  | No data available. |
| Kinematic viscosity                               | No data available. |
| Solubility  | No data available. |
| Partition coefficient n-octanol/water             | No data available. |
| Vapour pressure                                   | No data available. |
| Density/relative density                          | No data available. |
| Relative vapour pressure                          | No data available. |
| Particle characteristics                          | No data available. |

### 9.2 Other information

No data available.

## 10. Stability and reactivity

### 10.1 Reactivity

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions

Decomposition may occur on exposure to conditions or materials listed below. Hazardous reactions will not occur under normal transport or storage conditions.

### 10.4 Conditions to avoid

Heat.

### 10.5 Incompatible materials

Materials to avoid

Carbon dioxide. Organic materials. Strong acids. Strong oxidising agents.

## 11. Toxicological information

### 11.1 Information on toxicological effects

#### a) Acute toxicity

No data available.

#### b) Skin corrosion/irritation

No data available.

#### c) Serious eye damage/irritation

Serious eye damage/eye irritation (Category 1)

#### d) Respiratory or skin sensitisation

No data available.

#### e) Germ cell mutagenicity

No data available.

#### f) Carcinogenicity

No data available.

#### g) Reproductive toxicity

No data available.

#### h) STOT-single exposure

No data available.

#### i) STOT-repeated exposure

No data available.

#### j) Aspiration hazard

No data available.

### 11.2 Symptoms / routes of exposure

|              |  |
|--------------|--|
| Skin contact | There may be irritation and redness at the site of contact. There may be mild irritation at the site of contact. |
|--------------|--|

|             |  |
|-------------|--|
| Eye contact | The eyes may water profusely. There may be irritation and redness. |
|-------------|--|

|           |  |
|-----------|--|
| Ingestion | There may be soreness and redness of the mouth and throat. |
|-----------|--|

|            |  |
|------------|--|
| Inhalation | Exposure may cause coughing or wheezing. There may be irritation of the throat with a feeling of tightness in the chest. |
|------------|--|

|                             |  |
|-----------------------------|--|
| Delayed / immediate effects | Delayed effects can be expected after long-term exposure. Immediate effects can be expected after short-term exposure. |
|-----------------------------|--|

|                   |                    |
|-------------------|--------------------|
| Other information | No data available. |
|-------------------|--------------------|

## 12. Ecological information

### 12.1 Toxicity

No data available.

### 12.2 Persistence and degradability

Biodegradable.

### 12.3 Bioaccumulative potential

No bioaccumulation potential.

### 12.4 Mobility in soil

Readily absorbed into soil.

### 12.5 Results of PBT and vPvB assessment

This substance is not identified as a PBT substance.

### 12.6 Endocrine disrupting properties

This substance is not identified as having endocrine disrupting properties

### 12.7 Other adverse effects

No data available.

## 13. Disposal considerations

### 13.1 Waste treatment methods






Disposal operations

Transfer to a suitable container and arrange for collection by specialised disposal company.

NB

The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## 14. Transport information

| ADR  | IMDG   | IATA   | ADN  | RID  |
|--|--|--|--|--|
| <b>14.1. UN number</b>   |  |  |  |  |
| UN1477   | UN1477   | UN1477   | UN1477   | UN1477   |
| <b>14.2. UN proper shipping name</b>   |  |  |  |  |
| NITRATES,<br>INORGANIC, N.O.S.   | NITRATES,<br>INORGANIC, N.O.S.   | Nitrates, inorganic,<br>n.o.s.   | NITRATES,<br>INORGANIC, N.O.S.   | NITRATES,<br>INORGANIC, N.O.S.   |
| <b>Transport document description</b>  |  |  |  |  |
| UN1477 NITRATES,<br>INORGANIC, N.O.S.<br>(CERIUM(III)<br>NITRATE<br>HEXAHYDRATE),<br>5.1, II | UN1477 NITRATES,<br>INORGANIC, N.O.S.<br>(CERIUM(III)<br>NITRATE<br>HEXAHYDRATE),<br>5.1, II | UN1477 Nitrates,<br>inorganic, n.o.s.<br>(Cerium(III) nitrate<br>hexahydrate), 5.1, II | UN1477 NITRATES,<br>INORGANIC, N.O.S.<br>(CERIUM(III)<br>NITRATE<br>HEXAHYDRATE),<br>5.1, II | UN1477 NITRATES,<br>INORGANIC, N.O.S.<br>(CERIUM(III)<br>NITRATE<br>HEXAHYDRATE),<br>5.1, II |
| <b>14.3. Transport hazard class(es)</b>  |  |  |  |  |
| 5.1  | 5.1  | 5.1  | 5.1  | 5.1  |
|           |           |     |          |         |
| <b>14.4. Packing group</b>   |  |  |  |  |
| II   | II   | II   | II   | II   |

### 14.5. Environmental hazards

No No No No No

## 15. Regulatory information

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

This Safety Data Sheet is prepared in accordance with Commission Regulation (EC) 1907/2006, amended by Commission Regulation (EU) 2020/787.

#### Authorisations/Restrictions

Regulation (EC) 1907/2006, REACH, Annex XIV list of substances subject to authorisation: No data available.

Regulation (EC) 1907/2006, REACH, Annex XVII restrictions on the manufacture, placing on the market and use of certain dangerous substances: No data available.

Regulation (EC) 1005/2009 on substances that deplete the ozone layer: No data available.

Regulation (EC) 850/2004 on persistent organic pollutants, amended by (EU) No 2019/1021: No data available.

### 15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## 16. Other information

### H-Statement Full Texts

H272 May intensify fire: oxidizer  
H318 Causes serious eye damage

### Abbreviations Full Texts

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR European Agreement concerning the International Carriage of Dangerous Goods by Road  
ALARP As low as is reasonably practicable  
CAS Chemical Abstracts Service  
CLP Classification, Labelling and Packaging Regulations  
COSHH Control of Substances Hazardous to Health  
EC Number European Community Number  
EC50 Effective Concentration 50%  
EILINCS European List of Notified Chemical Substances  
EINECS European Inventory of Existing Commercial Chemical Substances  
GHS Globally Harmonised System  
HSE Health & Safety Executive UK  
IATA International Air Transport Association  
IM Intramuscular  
IMDG The International Maritime Dangerous Goods Code  
IP Intraperitoneal  
IV Intravascular  
LD50 Lethal Dose 50%  
LOEC Lowest Observable Effective Concentration  
LTEL Long Term Exposure Limit  
NOEC No Observable Effective Concentration  
OECD Organisation for Economic Cooperations and Development  
PBT Persistent Bioaccumulative Toxic  
PPE Personal Protective Equipment  
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals  
RID Regulations Concerning the International Carriage of Dangerous Goods by Rail  
SC Subcutaneous  
SDS Safety Data Sheet  
STEL Short Term Exposure Limit  
VOC Volatile Organic Compounds  
vPvB Very Persistent and Very Bioaccumulative  
WEL Workplace Exposure Limits

**This Safety Data Sheet is prepared in accordance with Commission Regulation (EC) 1907/2006, amended by Commission Regulation (EU) 2020/787.**

Disclaimer: Glenthams Life Sciences shall not be held liable for any damage resulting from handling or from contact with the above product. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This document does not guarantee the properties or quality of the product.