

Safety data sheet

according to Regulation (EC) No. 1907/2006



Printing date 17.02.2014

Version number 1

Revision: 17.02.2014

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

1.1 Product identifier

Trade name: YTTERBIUM (III)-NITRATE PENTAHYDRATE ROTI® REMETIC 99,99%**Article number:** 7257**CAS Number:**

35725-34-9

EC number:

237-384-6

Registration number

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

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

No further relevant information available.

Application of the substance / the mixture

Laboratory chemical

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Carl Roth GmbH + Co. KG

Schoemperlenstraße 3-5

76185 Karlsruhe

Germany

Telefon: +49/(0)721 5606-0

Telefax: +49/(0)721 5606-149

E-Mail: sicherheit@carlroth.de

Further information obtainable from: Department Health, Safety and Environment

1.4 Emergency telephone number:

Poison Centre Munich

Telefon +49/(0)89 19240

2 Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Ox. Sol. 2 H272 May intensify fire; oxidiser.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.

O; Oxidising

R8: Contact with combustible material may cause fire.

Additional information: Note, not yet fully tested.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

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Hazard pictograms

GHS03

GHS07

Signal word Danger**Hazard statements**

H272 May intensify fire; oxidiser.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Precautionary statements

P220 Keep away from combustible materials.

P280 Wear protective gloves / eye 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.

Additional information:

-

2.3 Other hazards

All chemicals are potentially dangerous. They are therefore only be handled by specially trained personnel with the necessary care.

Results of PBT and vPvB assessment**PBT:** Not applicable.**vPvB:** Not applicable.

3 Composition/information on ingredients

3.1 Chemical characterization: Substances**CAS No. Description**

35725-34-9 Ytterbium (III)-nitrate pentahydrate

Identification number(s)**EC number:** 237-384-6**Formula:** $\text{N}_3\text{O}_9\text{Yb}\cdot 5\text{H}_2\text{O}$ **Molar mass [g/mol]:** 449,13

4 First aid measures

**4.1 Description of first aid measures****General information:**

Remove any clothing soiled by the product.

After inhalation:

Supply fresh air; if there is any trouble seek medical help.

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After skin contact:

Wash with water and soap.

If there is any trouble seek medical help.

After eye contact:

Rinse opened eye for 10 minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth and then drink water.

Seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed

Irritations

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Firefighting measures**5.1 Extinguishing media****Suitable extinguishing agents:**

Product non-combustible.

Use fire extinguishing methods suitable to surrounding conditions.

For safety reasons unsuitable extinguishing agents:

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

5.2 Special hazards arising from the substance or mixture

Has a fire-promoting effect due to release of oxygen.

Ambient fire may liberate hazardous vapours.

In case of fire, the following can be released:Nitrogen oxides (NO_x)

Carbon monoxide and carbon dioxide

5.3 Advice for firefighters**Protective equipment:**

Wear self-contained respiratory protective device.

In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

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

Avoid contact with the eyes and skin.

Do not breathe dust.

6.2 Environmental precautions

Do not allow product to reach sewage system or any water course.

6.3 Methods and material for containment and cleaning up

Pick up mechanically.

Dispose of the material collected according to regulations.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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7 Handling and storage

7.1 Precautions for safe handling

Prevent formation of dust.

Information about fire - and explosion protection:

Keep away from combustible material.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

No special requirements.

Information about storage in one common storage facility:

Store away from foodstuffs.

Do not store together with substances with which dangerous reactions are possible (s. section 10).

Further information about storage conditions:

Keep container tightly sealed.

Store in dry conditions.

Keep away from sources of ignition and heat.

Recommended storage temperature: 15 - 25 °C

7.3 Specific end use(s)

No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical facilities:

No further data; see item 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace: Not required.

Additional information:

The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Avoid contact with the eyes and skin.

Wash hands before breaks and at the end of work.

Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Respiratory protection:



Required when dusts are generated: filter P2.

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Protection of hands:

Protective gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of glovesNitrile, thickness: ≥ 0.11 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove materialValue for the permeation: Level ≥ 6

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

As protection from splashes gloves made of the following materials are suitable:Nitrile rubber, thickness: ≥ 0.11 mmValue for the permeation: Level ≥ 6 **Eye protection:**

Tightly sealed goggles

Body protection:

Protective work clothing

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties**General Information****Appearance:**

Form:	Crystalline powder
Colour:	Colourless
Odour:	Not determined
Odour threshold:	No information available.

pH-value:	No information available.
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Change in condition

Melting point/Melting range:	No information available.
Boiling point/Boiling range:	No information available.

Flash point:	No information available
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Flammability (solid, gaseous):	Contact with combustible material may cause fire.
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Ignition temperature:	No information available
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Decomposition temperature:	No information available
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Self-igniting:	No information available
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Danger of explosion:	No information available
Explosion limits:	
Lower:	No information available.
Upper:	No information available.
Oxidizing properties:	May intensify fire; oxidiser.
Vapour pressure:	No information available
Density:	No information available.
Vapour density	No information available
Evaporation rate	No information available
Solubility in / Miscibility with water:	No information available.
Partition coefficient (n-octanol/water):	No information available
Viscosity:	
Dynamic:	No information available.
Kinematic:	No information available.
9.2 Other information	No further relevant information available.

10 Stability and reactivity

10.1 Reactivity

See section 10.3

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

Strong reaction possible with:

Reducing agents

Strong acids

organic combustible substances

10.4 Conditions to avoid

Strong Heating. (decomposition)

10.5 Incompatible materials:

No information available.

10.6 Hazardous decomposition products:

In case of fire: see item 5.

11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

LD/LC50 values relevant for classification:

Quantitative data on the toxicity of this product are not available.

Primary irritant effect:

on the skin:

Irritant to skin and mucous membranes.

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on the eye:

Irritating effect.

after inhalation:

Irritation symptoms in the respiratory tract.

Sensitization:

No sensitizing effects known.

CMR effects:**Germ cell mutagenicity:**

No information available.

Carcinogenicity:

No information available.

Reproductive toxicity:

No information available.

Aspiration hazard:

Not applicable.

Specific target organ toxicity - single exposure May cause respiratory irritation.**Specific target organ toxicity - repeated exposure**

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Additional toxicological information:

After swallowing irritations in the mouth, throat, oesophagus and gastrointestinal tract.

The following applies to nitrites/nitrates in general: methaemoglobinaemia after the uptake of large quantities.

Further information:

To the best of our knowledge, the toxicological properties have not been thoroughly investigated. Further hazardous properties cannot be excluded.

The product should be handled with the care usual when dealing with chemicals.

12 Ecological information**12.1 Toxicity****Aquatic toxicity:**

Quantitative data on the ecological effect of this product are not available.

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

Ecotoxicological effects:**Remark:**

Do not allow to enter waters, waste water, or soil!

12.5 Results of PBT and vPvB assessment**PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects**

No further relevant information available.

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13 Disposal considerations

Waste treatment methods

Recommendation

This material and its container must be disposed of as hazardous waste.

The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.

Uncleaned packaging:

Recommendation:

Disposal according to official regulations.

14 Transport information

14.1 UN-Number

ADR, IMDG, IATA

UN1477

14.2 UN proper shipping name

ADR

1477 NITRATES, INORGANIC, N.O.S. (Ytterbium (III)-nitrate pentahydrate)

IMDG, IATA

NITRATES, INORGANIC, N.O.S. (Ytterbium (III)-nitrate pentahydrate)

14.3 Transport hazard class(es)

ADR, IMDG, IATA



Class

5.1 Oxidising substances.

Label

5.1

14.4 Packing group

ADR, IMDG, IATA

II

14.5 Environmental hazards:

Marine pollutant:

No

14.6 Special precautions for user

Danger code (Kemler):

Warning: Oxidising substances.

EMS Number:

50

F-A,S-Q

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ)

1 kg

Transport category

2

Tunnel restriction code

E

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UN "Model Regulation":

UN1477, NITRATES, INORGANIC, N.O.S. (Ytterbium (III)-nitrate pentahydrate), 5.1, II

15 Regulatory information

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

National regulations:**Information about limitation of use:** Employment restrictions concerning juveniles must be observed.**Breakdown regulations:****Waterhazard class:**

Water hazard class 3 (Self-assessment): extremely hazardous for water.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing MSDS: Department: Health, Safety and Environment**Contact:** Frau Weckemann

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

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

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

LD50*: Lethal Dose, 50 percent (Not relevant for classification)

LD50*: Lethal Concentration, 50 percent (Not relevant for classification)

Ox. Sol. 2: Oxidising Solids, Hazard Category 2

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3