

Safety data sheet

according to Regulation (EC) No. 1907/2006



Printing date 24.02.2014

Version number 2

Revision: 13.02.2014

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

1.1 Product identifier

Trade name: YTTERBIUM(III) CHLORIDE HEXAHYDRATE ROTI® METIC Ultra 99.999%

Article number: 5749

CAS Number:

10035-01-5

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 Void

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

Additional information: Note, not yet fully tested.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 Void

Hazard pictograms Void

Signal word Void

Hazard statements Void

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.

(Contd. on page 2)

GB

Safety data sheet

according to Regulation (EC) No. 1907/2006



Printing date 24.02.2014

Version number 2

Revision: 13.02.2014

Trade name: YTTERBIUM(III) CHLORIDE HEXAHYDRATE ROTI® METIC Ultra 99.999%

(Contd. of page 1)

3 Composition/information on ingredients

3.1 Chemical characterization: Substances

CAS No. Description

10035-01-5 Ytterbium(III) chloride hexahydrate

Identification number(s) -**Formula:** $\text{Cl}_3\text{Yb} \cdot 6 \text{H}_2\text{O}$ **Molar mass [g/mol]:** 387,49

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.

After skin contact:

Rinse with water

If there is any trouble seek medical help.

After eye contact:

To be sure rinse opened eye under running water. If there is any trouble seek medical help.

After swallowing:

Rinse out mouth and then drink water.

Seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed

We have no description of any toxic symptoms.

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: 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

Ambient fire may liberate hazardous vapours.

In case of fire, the following can be released:

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.

(Contd. on page 3)

Safety data sheet

according to Regulation (EC) No. 1907/2006



Printing date 24.02.2014

Version number 2

Revision: 13.02.2014

Trade name: YTTERBIUM(III) CHLORIDE HEXAHYDRATE ROTI® METIC Ultra 99.999%

(Contd. of page 2)

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe dust.

Avoid contact with the eyes and skin.

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.

7 Handling and storage

7.1 Precautions for safe handling

Provide suction extractors if dust is formed.

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.

Further information about storage conditions:

Keep container tightly sealed.

Store in dry conditions.

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.

(Contd. on page 4)

Safety data sheet

according to Regulation (EC) No. 1907/2006



Printing date 24.02.2014

Version number 2

Revision: 13.02.2014

Trade name: YTTERBIUM(III) CHLORIDE HEXAHYDRATE ROTI® METIC Ultra 99.999%

(Contd. of page 3)

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:

When dusts are generated: protective device filter P1.

Protection of hands:

Protective gloves

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

Material of gloves

Nitrile, 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 material

Value 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 mm

Value 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
Colour:	White
Odour:	Odourless
Odour threshold:	Not determined.

(Contd. on page 5)



Safety data sheet

according to Regulation (EC) No. 1907/2006

Printing date 24.02.2014

Version number 2

Revision: 13.02.2014

Trade name: YTTERBIUM(III) CHLORIDE HEXAHYDRATE ROTI® METIC Ultra 99.999%

(Contd. of page 4)

pH-value:	No information available.
Change in condition	
Melting point/Melting range:	No information available.
Boiling point/Boiling range:	Not applicable (decomposition)
Flash point:	No information available
Flammability (solid, gaseous):	No information available
Ignition temperature:	No information available
Decomposition temperature:	No information available
Self-igniting:	No information available
Danger of explosion:	No information available
Explosion limits:	
Lower:	No information available.
Upper:	No information available.
Oxidizing properties:	No information available.
Vapour pressure:	No information available
Density at 20 °C:	2.57 g/cm ³
Vapour density	No information available
Evaporation rate	No information available
Solubility in / Miscibility with water:	Soluble. 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

Reacts with strong acids and oxidizing agents.

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.

(Contd. on page 6)

**Trade name: YTTERBIUM(III) CHLORIDE HEXAHYDRATE ROTI® METIC Ultra 99.999%**

(Contd. of page 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:**

Prolonged or repeated contact may cause skin irritations.

on the eye:

Intense exposure may cause irritative symptoms.

after inhalation:

Intensive contact with dusts may lead to irritations of the eyes and 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

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

Specific target organ toxicity - repeated exposure

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

Additional toxicological information:

We have no description of any toxic symptoms.

Further information:

To the best of our knowledge, the toxicological properties have not been thoroughly investigated. 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.

(Contd. on page 7)

Safety data sheet

according to Regulation (EC) No. 1907/2006



Printing date 24.02.2014

Version number 2

Revision: 13.02.2014

Trade name: YTTERBIUM(III) CHLORIDE HEXAHYDRATE ROTI® METIC Ultra 99.999%

(Contd. of page 6)

Ecotoxical 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.

13 Disposal considerations

Waste treatment methods**Recommendation**

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, ADN, IMDG, IATA

Void

14.2 UN proper shipping name

ADR, ADN, IMDG, IATA

Void

14.3 Transport hazard class(es)

ADR, ADN, IMDG, IATA

Class

Void

14.4 Packing group

ADR, IMDG, IATA

Void

14.5 Environmental hazards:**Marine pollutant:**

No

14.6 Special precautions for user

Not applicable.

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

Not applicable.

Transport/Additional information:

ADR

Remarks:

Not subject to transport regulations.

UN "Model Regulation":

-

(Contd. on page 8)

Safety data sheet
according to Regulation (EC) No. 1907/2006



Printing date 24.02.2014

Version number 2

Revision: 13.02.2014

Trade name: YTTERBIUM(III) CHLORIDE HEXAHYDRATE ROTI® METIC Ultra 99.999%

(Contd. of page 7)

15 Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations:****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)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

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

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)

*** Data compared to the previous version altered.**