

Safety data sheet

according to Regulation (EC) No. 1907/2006

Printing date 21.02.2014

Version number 1

Revision: 21.02.2014

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

1.1 Product identifier

Trade name: ERBIUM (III)-FLUORIDE ROTI® REMETIC 99,99%**Article number:** 7234**CAS Number:**

13760-83-3

EC number:

237-356-3

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

Acute Tox. 3 H301 Toxic if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

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

T; Toxic

R25: Toxic if swallowed.

Xi; Irritant

R36/38: Irritating to eyes and skin.

R32: Contact with acids liberates very toxic gas.

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.

(Contd. on page 2)

Safety data sheet

according to Regulation (EC) No. 1907/2006



Printing date 21.02.2014

Version number 1

Revision: 21.02.2014

Trade name: ERBIUM (III)-FLUORIDE ROTI® REMETIC 99,99%

(Contd. of page 1)

Hazard pictograms

GHS06

Signal word Danger**Hazard statements**

H301 Toxic if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statements

P270 Do not eat, drink or smoke when using this product.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P309 IF exposed or if you feel unwell:

P310 Immediately call a POISON CENTER or doctor/physician.

P405 Store locked up.

Additional information:

EUH032 Contact with acids liberates very toxic gas.

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**

13760-83-3 erbium trifluoride

Identification number(s)

EC number: 237-356-3

Formula: Er F₃

Molar mass [g/mol]: 224,28

4 First aid measures

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

Immediately remove any clothing soiled by the product.

(Contd. on page 3)

GB

Safety data sheet

according to Regulation (EC) No. 1907/2006

Printing date 21.02.2014

Version number 1

Revision: 21.02.2014

Trade name: ERBIUM (III)-FLUORIDE ROTI® REMETIC 99,99%

(Contd. of page 2)

After inhalation:

Take affected persons into fresh air and keep quiet.
If breathing is difficult, give oxygen. Seek medical advice immediately.

After skin contact:

After contact with skin: Rinse with plenty of water for at least 10 minutes. Immediately remove contaminated clothes. Apply calcium gluconate gel and massage into the skin until the pain subsides, in between rinse with water and apply fresh gel. Continue gel therapy for another 15 minutes after the pain has subsided. If no calcium gluconate gel is available, apply several dressings thoroughly moistened with 20 % calcium gluconate solution. Medical advice absolutely required!

After eye contact:

Rinse immediately for 15 minutes with plenty of water with the eyelid held wide open. Seek medical advice.

After swallowing:

Rinse out mouth and then drink water.
If possible, add calcium gluconate solution.
Risk of perforation!
Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

Irritation and corrosion

coughing

Vomiting

Spasms

Dyspnoea

Unconsciousness

Possibly respiratory arrest and heart attack

The following applies to soluble inorganic fluorides in general: may cause irritations to burns in contact with eyes, skin, mucous membranes. Systemic effect: drop in blood calcium level, agitation, spasms, cardiovascular disorders, CNS disorders.

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

Ambient fire may liberate hazardous vapours.

In case of fire, the following can be released:

Hydrogen fluoride (HF)

Carbon monoxide and carbon dioxide

5.3 Advice for firefighters**Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

(Contd. on page 4)

GB

Safety data sheet

according to Regulation (EC) No. 1907/2006



Printing date 21.02.2014

Version number 1

Revision: 21.02.2014

Trade name: ERBIUM (III)-FLUORIDE ROTI® REMETIC 99,99%

(Contd. of page 3)

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment.

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 contaminated material as waste according to item 13.

Ensure adequate ventilation.

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

Work under hood.

Do not mix with acids.

Keep containers, equipment and working place clean.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

Information about storage in one common storage facility:

Do not store together with acids.

Store away from foodstuffs.

Further information about storage conditions:

Keep container tightly sealed.

Store in dry conditions.

Store under lock and key and with access restricted to technical experts or their assistants only.

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:

13760-83-3 erbium trifluoride

WEL (Great Britain)	Long-term value: 2.5 mg/m ³ as F
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(Contd. on page 5)

Safety data sheet

according to Regulation (EC) No. 1907/2006

Printing date 21.02.2014

Version number 1

Revision: 21.02.2014

Trade name: ERBIUM (III)-FLUORIDE ROTI® REMETIC 99,99%

(Contd. of page 4)

IOELV (EU)	Long-term value: 2.5 mg/m ³ as F
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Additional information:

The lists valid during the making were used as basis.

8.2 Exposure controls**Personal protective equipment:****General protective and hygienic measures:**

Do not eat, drink or smoke while working.

Do not breathe dust.

Avoid contact with the eyes and skin.

Clean skin thoroughly immediately after handling the product.

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 B-P3.

When selecting your respiratory unit: Consider the "Rules for the use of respiratory protection equipment" (BGR190).

Protection of hands:

Protective gloves

Check protective gloves prior to each use for their proper condition.

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:

(Contd. on page 6)

Safety data sheet

according to Regulation (EC) No. 1907/2006

Printing date 21.02.2014

Version number 1

Revision: 21.02.2014

Trade name: ERBIUM (III)-FLUORIDE ROTI® REMETIC 99,99%

(Contd. of page 5)

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:	Like powder
Colour:	Pink
Odour:	Odourless
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):	No information available
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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
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Explosion limits:

Lower:	No information available.
Upper:	No information available.
Oxidizing properties:	No information available.

Vapour pressure:	No information available
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Density:	No information available.
Vapour density	No information available
Evaporation rate	No information available

Solubility in / Miscibility with water:	No information available.
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Partition coefficient (n-octanol/water):	No information available
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Viscosity:

Dynamic:	No information available.
Kinematic:	No information available.

9.2 Other information	No further relevant information available.
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10 Stability and reactivity

10.1 Reactivity

See section 10.3

(Contd. on page 7)

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



Printing date 21.02.2014

Version number 1

Revision: 21.02.2014

Trade name: ERBIUM (III)-FLUORIDE ROTI® REMETIC 99,99%

(Contd. of page 6)

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

Contact with acids liberates very toxic gas.

10.4 Conditions to avoid

No information available.

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.

Classification was based chemically similar substances.

Primary irritant effect:**on the skin:**

Irritant to skin and mucous membranes.

Causes poorly healing wounds.

on the eye:

Strong irritant with the danger of severe eye injury.

after inhalation:

Irritations in the respiratory tract, coughing, dyspnoea.

Pulmonary oedema latency period until onset of action.

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:**After swallowing:**

Absorption

Vomiting

(Contd. on page 8)

GB

Safety data sheet

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Printing date 21.02.2014

Version number 1

Revision: 21.02.2014

Trade name: ERBIUM (III)-FLUORIDE ROTI® REMETIC 99,99%

(Contd. of page 7)

Spasms

Systemic effects:

cardiac arrhythmia

Respiratory arrest

Death

The following applies to soluble inorganic fluorides in general: may cause irritations to burns in contact with eyes, skin, mucous membranes. Systemic effect: drop in blood calcium level, agitation, spasms, cardiovascular disorders, CNS disorders.

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.

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.

(Contd. on page 9)

Safety data sheet

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Trade name: ERBIUM (III)-FLUORIDE ROTI® REMETIC 99,99%

(Contd. of page 8)

14 Transport information

14.1 UN-Number	
ADR, IMDG, IATA	UN3288
14.2 UN proper shipping name	
ADR	3288 TOXIC SOLID, INORGANIC, N.O.S. (erbium trifluoride)
IMDG, IATA	TOXIC SOLID, INORGANIC, N.O.S. (erbium trifluoride)
14.3 Transport hazard class(es)	
ADR	
Class	6.1 Toxic substances.
IMDG, IATA	
	
Class	6.1 Toxic substances.
Label	6.1
14.4 Packing group	
ADR, IMDG, IATA	III
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	
Danger code (Kemler):	Warning: Toxic substances. 60
EMS Number:	F-A,S-A
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)	5 kg
Transport category	2
Tunnel restriction code	E
UN "Model Regulation":	
	UN3288, TOXIC SOLID, INORGANIC, N.O.S. (erbium trifluoride), 6.1, III

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:

(Contd. on page 10)



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

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Revision: 21.02.2014

Trade name: ERBIUM (III)-FLUORIDE ROTI® REMETIC 99,99%

(Contd. of page 9)

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:**

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)

Acute Tox. 3: Acute toxicity, Hazard Category 3

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

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

GB