



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

1.1 Product identifier

Trade name: BERYLLIUM ACETATE basic ROTI®METIC Ultra 99,999%

Article number: 5612

CAS Number:

19049-40-2

EC number:

242-785-4

Index number:

004-002-00-2

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.
Acute Tox. 1	H330	Fatal if inhaled.
Carc. 1B	H350i	May cause cancer by inhalation.
STOT RE 1	H372	Causes damage to organs through prolonged or repeated exposure.
Aquatic Chronic 2	H411	Toxic to aquatic life with long lasting effects.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2	H319	Causes serious eye irritation.
Skin Sens. 1	H317	May cause an allergic skin reaction.
STOT SE 3	H335	May cause respiratory irritation.

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

T+; Very toxic

R26: Very toxic by inhalation.

T; Toxic

R49-25-48/23: May cause cancer by inhalation. Toxic if swallowed. Toxic: danger of serious damage to health by prolonged exposure through inhalation.

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Xi; Irritant

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

Xi; Sensitising

R43: May cause sensitisation by skin contact.

N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

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

Hazard pictograms



GHS06



GHS08



GHS09

Signal word Danger

Hazard statements

H301 Toxic if swallowed.

H330 Fatal if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H350i May cause cancer by inhalation.

H335 May cause respiratory irritation.

H372 Causes damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P281 Use personal protective equipment as required.

P201 Obtain special instructions before use.

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

P308+P313 IF exposed or concerned: Get medical advice/attention.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P405 Store locked up.

Additional information:

Restricted to professional users.

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.

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3 Composition/information on ingredients

3.1 Chemical characterization: Substances

CAS No. Description

19049-40-2 Beryllium acetate, basic

Identification number(s)**EC number:** 242-785-4**Index Number:** 004-002-00-2**Formula:** $\text{Be}_4\text{O}(\text{C}_2\text{H}_3\text{O}_2)_6$ **Molar mass [g/mol]:** 406,16

4 First aid measures



4.1 Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

First Aider: Pay attention to self-protection!

After inhalation:

Supply fresh air and to be sure call for a doctor.

After skin contact:

Immediately rinse with water.

Seek medical treatment.

After eye contact:

Rinse opened eye for 10 minutes under running water. Then consult a doctor.

After swallowing:

Rinse out mouth and drink a glass of water. Do not induce vomiting.

Call for a doctor immediately and show the container or label.

4.2 Most important symptoms and effects, both acute and delayed

Irritation and corrosion

Allergic reactions

Coughing

Breathing difficulty

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.

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:**

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

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5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:

In the event of fire development of hazardous combustion gases or vapours possible.
Carbon monoxide and carbon dioxide

5.3 Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Prevent fire-fighting water from entering surface water or groundwater.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep people at a distance and stay on the windward side.

Avoid contact with the eyes and skin.

Ensure adequate ventilation

Avoid formation of dust.

Evacuate the danger area, observe emergency procedures, consult an expert.

6.2 Environmental precautions

Do not allow to enter sewers/ground water or penetrate the soil.

Keep contaminated washing water and dispose of appropriately.

6.3 Methods and material for containment and cleaning up

Pick up mechanically.

Dispose of the material collected according to regulations.

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

Keep containers, equipment and working place clean.

Handling corresponding to laboratory safety guidelines.

Ensure good ventilation/exhaustion at the workplace.

Handle and open container with care.

Information about fire - and explosion protection:

Keep respiratory protective device available.

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.

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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:

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.

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 P3.

Protection of hands:



Protective gloves

Due to missing tests no recommendation to the glove material can be given for the product.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

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

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

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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:	Powder
Colour:	White
Odour:	like acetic acid
Odour threshold:	Not determined.

pH-value: Not applicable.

Change in condition

Melting point/Melting range:	284 °C
Boiling point/Boiling range:	331 °C

Flash point: Not applicable.

Flammability (solid, gaseous): Product is not flammable.

Ignition temperature: No information available

Decomposition temperature: No information available

Self-igniting: No information available

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower:	No information available.
Upper:	No information available.

Oxidizing properties: No information available.

Vapour pressure: Not applicable.

Density at 20 °C:	1.36 g/cm ³
Vapour density	Not applicable.
Evaporation rate	Not applicable.

Solubility in / Miscibility with water: Not miscible or difficult to mix.

Partition coefficient (n-octanol/water): Not determined.

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**

No information available

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

No information available.

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials:

No information available.

10.6 Hazardous decomposition products:

Toxic metal oxide smoke

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.

on the eye:

Irritating effect.

after inhalation:

Irritations in the respiratory tract, coughing, dyspnoea.

Sensitization:

Sensitization possible through skin contact.

CMR effects:

Carc. 1B

Germ cell mutagenicity:

No information available.

Carcinogenicity:

Carcinogenic if inhaled.

Reproductive toxicity:

No information available.

Aspiration hazard:

No information available.

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

Causes damage to organs through prolonged or repeated exposure.

Additional toxicological information:

We have no description of any toxic symptoms.

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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.

Ecotoxicological effects:**Remark:**

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

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Also poisonous for fish and plankton in water bodies.

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.

14 Transport information

14.1 UN-Number

ADR, IMDG, IATA

UN1566

14.2 UN proper shipping name

ADR

1566 BERYLLIUM COMPOUND, N.O.S. (Beryllium acetate, basic), ENVIRONMENTALLY HAZARDOUS

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IMDG	BERYLLIUM COMPOUND, N.O.S., MARINE POLLUTANT
IATA	BERYLLIUM COMPOUND, N.O.S.
14.3 Transport hazard class(es)	
ADR, IMDG	
	
Class Label	6.1 Toxic substances. 6.1
IATA	
	
Class Label	6.1 Toxic substances. 6.1
14.4 Packing group	
ADR, IMDG, IATA	II
14.5 Environmental hazards:	
	Environmentally hazardous substance, solid; Marine Pollutant
Marine pollutant:	Yes (P) Symbol (fish and tree)
Special marking (ADR):	Symbol (fish and tree)
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)	LQ18
Transport category	2
Tunnel restriction code	D/E
UN "Model Regulation":	UN1566, BERYLLIUM COMPOUND, N.O.S. (Beryllium acetate, basic), ENVIRONMENTALLY HAZARDOUS, 6.1, II

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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 pregnant and lactating women must be observed.
Employment restrictions concerning juveniles must be observed.

Breakdown regulations:

Waterhazard class:

Water hazard class 3 (Assessment by list): 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: Herr Heine

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

P: Marine Pollutant

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)

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