

Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 01.08.2014

Version number 2

Revision: 01.08.2014

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

1.1 Product identifier

Trade name: (+)-Borneol ROTICHROM® GC, (+)-Bornyl alcohol**Article number:** 8903**CAS Number:**

464-43-7

EC number:

207-352-6

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

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flam. Sol. 2 H228 Flammable solid.

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

F; Highly flammable

R11: Highly flammable.

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



GHS02

Signal word Warning

Hazard statements

H228 Flammable solid.

(Contd. on page 2)

GB

Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 01.08.2014

Version number 2

Revision: 01.08.2014

Trade name: (+)-Borneol ROTICHROM® GC, (+)-Bornyl alcohol

(Contd. of page 1)

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280 Wear protective gloves / eye protection.

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.**SECTION 3: Composition/information on ingredients****3.1 Chemical characterization: Substances****CAS No. Description**

464-43-7 (1R,2S,4R)-borneol

Identification number(s)**EC number:** 207-352-6**Formula:** C₁₀H₁₈O**Molar mass [g/mol]:** 154,25**SECTION 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:

Wash with water and soap.

Seek medical treatment in case of complaints.

After eye contact:

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

After swallowing:

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

Call for a doctor immediately.

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.

(Contd. on page 3)

Trade name: (+)-Borneol ROTICHROM® GC, (+)-Bornyl alcohol

(Contd. of page 2)

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

Use fire extinguishing methods suitable to surrounding conditions.
CO₂, powder, foam or water spray.

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

In the event of fire development of hazardous combustion gases or vapours possible.
Formation of toxic gases is possible during heating or in case of fire.
Danger of dust explosion.

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.
Wear fully protective suit.

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

Keep away from ignition sources.
Wear protective equipment. Keep unprotected persons away.
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.

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.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.
Handling corresponding to laboratory safety guidelines.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

(Contd. on page 4)

Trade name: (+)-Borneol ROTICHROM® GC, (+)-Bornyl alcohol

(Contd. of page 3)

7.2 Conditions for safe storage, including any incompatibilities**Storage:****Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Information about storage in one common storage facility:

Store away from foodstuffs.

Further information about storage conditions:

Store receptacle in a well ventilated area.

Store in cool, dry conditions in well sealed receptacles.

Recommended storage temperature:

+4 °C

7.3 Specific end use(s)

No further relevant information available.

SECTION 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:**

Do not breathe dust.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

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

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 01.08.2014

Version number 2

Revision: 01.08.2014

Trade name: (+)-Borneol ROTICHROM® GC, (+)-Bornyl alcohol

(Contd. of page 4)

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 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

SECTION 9: Physical and chemical properties

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

| | |
|-------------------------|---------------------------|
| Form: | Solid |
| Colour: | White |
| Odour: | Odourless |
| Odour threshold: | No information available. |

pH-value: Not applicable.

Change in condition

| | |
|-------------------------------------|---------------|
| Melting point/Melting range: | 206 °C |
| Boiling point/Boiling range: | Undetermined. |

Flash point: 65 °C

Flammability (solid, gaseous): Flammable solid.
Highly flammable.

Ignition temperature: No information available

Decomposition temperature: No information available

Self-igniting: No information available

Danger of explosion: The product is not explosive. However, dust may form an explosive mixture with air.

Explosion limits:

| | |
|---------------|-----------------|
| Lower: | Not determined. |
| Upper: | Not determined. |

(Contd. on page 6)

GB

Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 01.08.2014

Version number 2

Revision: 01.08.2014

Trade name: (+)-Borneol ROTICHROM® GC, (+)-Bornyl alcohol

(Contd. of page 5)

| | |
|---|--|
| Oxidizing properties: | No information available. |
| Vapour pressure: | Not applicable. |
| Density: | Not determined. |
| Relative density | No Information available. |
| Vapour density | No information available |
| Evaporation rate | No information available |
| Solubility in / Miscibility with water: | Not miscible or difficult to mix. |
| Partition coefficient (n-octanol/water): | No information available |
| Viscosity: | |
| Dynamic: | Not applicable. |
| Kinematic: | Not applicable. |
| 9.2 Other information | No further relevant information available. |

SECTION 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

Risk of dust explosion.

Strong oxidizing agents

10.4 Conditions to avoid

Heat, flammes and sparks

10.5 Incompatible materials:

No information available.

10.6 Hazardous decomposition products:

In case of fire: see item 5.

SECTION 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:

No information available.

on the eye:

No information available.

after inhalation:

No information available.

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 01.08.2014

Version number 2

Revision: 01.08.2014

Trade name: (+)-Borneol ROTICHROM® GC, (+)-Bornyl alcohol

(Contd. of page 6)

Sensitization:

No sensitizing effects known.

CMR effects:**Germ cell mutagenicity:**

No information available.

Carcinogenicity:

No information available.

Reproductive toxicity:

No information available.

Aspiration hazard:

No information available.

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:

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

SECTION 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 Not applicable.

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects

No further relevant information available.

SECTION 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.

(Contd. on page 8)

GB

Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 01.08.2014

Version number 2

Revision: 01.08.2014

Trade name: (+)-Borneol ROTICHROM® GC, (+)-Bornyl alcohol

(Contd. of page 7)

Uncleaned packaging:

Recommendation:

Disposal according to official regulations.

SECTION 14: Transport information

14.1 UN-Number

ADR, IMDG, IATA

UN1312

14.2 UN proper shipping name

ADR

1312 BORNEOL

IMDG, IATA

BORNEOL

14.3 Transport hazard class(es)

ADR, IMDG, IATA



Class

4.1 Flammable solids, self-reactive substances and solid desensitised explosives.

Label

4.1

14.4 Packing group

ADR, IMDG, IATA

III

14.5 Environmental hazards:

Marine pollutant:

No

14.6 Special precautions for user

Warning: Flammable solids, self-reactive substances and solid desensitised explosives.

Danger code (Kemler):

40

EMS Number:

F-A,S-I

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

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

Transport category

3

Tunnel restriction code

E

IMDG

Limited quantities (LQ)

5 kg

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 01.08.2014

Version number 2

Revision: 01.08.2014

Trade name: (+)-Borneol ROTICHROM® GC, (+)-Bornyl alcohol

(Contd. of page 8)

UN "Model Regulation":

UN1312, BORNEOL, 4.1, III

SECTION 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 2 (Self-assessment): hazardous for water.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 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)

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)

Flam. Sol. 2: Flammable solids, Hazard Category 2

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