



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

1.1 Product identifier

Trade name: BENTONITE, pure

Article number: 0113

CAS Number:

1302-78-9

EC number:

215-108-5

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

2.2 Label elements

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

Hazard pictograms Void

Signal word Void

Hazard statements Void

Additional information:

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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

1302-78-9 Bentonite

Identification number(s)**EC number:** 215-108-5**Formula:** $H_2Al_2O_6Si$ **Molar mass [g/mol]:** 180,06**Additional information:** The product contains less than 1% w/w RCS (respirable crystalline silica).

4 First aid measures



4.1 Description of first aid measures

After inhalation:

After inhalation of dusts:

Supply fresh air.

If breathing is difficult, give oxygen. Seek medical treatment.

After skin contact:

Rinse with water

After eye contact:

To be sure rinse opened eye under running water.

After swallowing:

Rinse out mouth and then drink water.

4.2 Most important symptoms and effects, both acute and delayed

After inhalation:

coughing

Breathing difficulty

Hazards Risk of silicosis.

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:

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Carbon monoxide and carbon dioxide

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5.3 Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe dust.

Product forms slippery surface when combined with water.

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.

Avoid formation of dust

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

Bentonite (Dust): 10mg/m³ Total dust

3mg/m³ Respirable fraction

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

Additional information:

The lists valid during the making were used as basis.

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

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

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.

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

Protection of hands:

For the permanent contact gloves are recommended.

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, thickness: ≥ 0.11 mm

Eye protection:

Tightly sealed goggles

Body protection:

Protective work clothing

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9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Powder
Colour:	Grey-beige
Odour:	Odourless
Odour threshold:	No information available.

pH-value (20 g/l) at 20 °C: 6-11

Change in condition

Melting point/Melting range:	> 450 °C
Boiling point/Boiling range:	No information available.

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: No information available

Density at 20 °C: 2.6 g/cm³

Bulk density: 500-1100 kg/m³

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): Not applicable.

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

No further relevant 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.

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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:**

Oral	LD50	> 5000 mg/kg (rat) (IUCLID)
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Specific symptoms in biological assay:

Skin and eye irritation test (rabbit): no irritation.

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

No irritating effect.

on the eye:

Intense exposure may cause irritative symptoms.

after inhalation:

Intensive contact with dusts may lead to irritations of the respiratory tract.

Irritations in the respiratory tract, coughing, dyspnoea.

Tissue damage, pneumonia.

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:

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

Further information:

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

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12 Ecological information

12.1 Toxicity

Aquatic toxicity:

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

Fish toxicity:

LC50	19000 mg/l/96 h (Salmo gairdnerii) (IUCLID)
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Daphnia toxicity:

EC50	> 100 mg/l/48 h (Daphnia magna) (OECD-202)
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12.2 Persistence and degradability

Biologic degradation: Methods for the determination of biodegradability are not applicable to inorganic substances.

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

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

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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":	-

15 Regulatory information

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

National regulations:

Breakdown regulations:

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Waterhazard class:

Generally not hazardous for water (German regulation).

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

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)

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

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

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