

Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice



Glass beads made of soda-lime glass 0,75 - 1,0 mm, From ROTH SELECTION

article number: **A554**
Version: **GHS 3.1 en**
Replaces version of: 2024-09-21
Version: (GHS 3)

date of compilation: 2020-09-25
Revision: 2024-10-10

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

1.1 Product identifier

Identification of the substance **Glass beads made of soda-lime glass 0,75 - 1,0 mm, From ROTH SELECTION**

Article number A554

CAS number 65997-17-3

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Laboratory and analytical use
Laboratory chemical

Uses advised against: Do not use for private purposes (household).
Food, drink and animal feedingstuffs.

1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co. KG
Schoemperlenstr. 3-5
D-76185 Karlsruhe
Germany

Telephone:+49 (0) 721 - 56 06 0
Telefax: +49 (0) 721 - 56 06 149
e-mail: sicherheit@carlroth.de
Website: www.carlroth.de

Competent person responsible for the safety data sheet: Department Health, Safety and Environment

1.4 Emergency telephone number

| Name | Street | Postal code/city | Telephone | Website |
|--|-----------------|--------------------|-----------|---------|
| NSW Poisons Information Centre Childrens Hospital | Hawkesbury Road | 2145 Westmead, NSW | 131126 | |

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification acc. to GHS

This mixture does not meet the criteria for classification.

2.2 Label elements

Labelling

not required

2.3 Other hazards

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0,1\%$.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$.

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SECTION 3: Composition/information on ingredients

3.1 Substances

not relevant (mixture)

3.2 Mixtures

Description of the mixture

| Name of substance | Identifier | Wt% | Classification acc. to GHS | Pictograms | Notes |
|-------------------|---------------------|---------|---|---|-------|
| Silicon dioxide | CAS No 7631-86-9 | 65 - 75 | | | |
| sodium monoxide | CAS No 1313-59-3 | 12 - 17 | Water-react. 3 / H261 Skin Corr. 1 / H314 Eye Dam. 1 / H318 |   | |
| Calcium oxide | CAS No 1305-78-8 | ≤ 10 | Skin Irrit. 2 / H315 Eye Dam. 1 / H318 STOT SE 3 / H335 |   | |
| Magnesium oxide | CAS No 1309-48-4 | ≤ 5 | | | |
| Aluminium oxide | CAS No 1344-28-1 | ≤ 5 | | | |

Remarks

For full text of abbreviations: see SECTION 16

SECTION 4: First aid measures

4.1 Description of first aid measures



General notes

No special measures are necessary.

Following inhalation

There is no major dust generation possible. No special measures are necessary.

Following skin contact

Brush off loose particles from skin. No special measures are necessary.

Following eye contact

Rinse cautiously with water for several minutes.

Following ingestion

No special measures are necessary.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

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SECTION 5: Firefighting measures

5.1 Extinguishing media



Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings!
water, foam, dry extinguishing powder, ABC-powder

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Non-combustible.

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures



For non-emergency personnel

No special measures are necessary.

6.2 Environmental precautions

Not required.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains. Take up mechanically.

Advice on how to clean up a spill

Take up mechanically.

Other information relating to spills and releases

Place in appropriate containers for disposal.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

No special measures are necessary.

Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Store in a dry place.

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Incompatible substances or mixtures

Observe hints for combined storage. Incompatible materials: see section 10.

Consideration of other advice:

Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

| Country | Name of agent | CAS No | Identifier | TWA [mg/m ³] | STEL [mg/m ³] | Ceiling-C [mg/m ³] | Notation | Source |
|---------|---|-------------|------------|--------------------------|---------------------------|--------------------------------|-------------------|--------|
| AU | silica, amorphous, silica gel (precipitated silica) | 112926-00-8 | WES | 10 | | | i, noAsb_less1Sil | WES |
| AU | calcium oxide | 1305-78-8 | WES | 2 | | | | WES |
| AU | magnesium oxide | 1309-48-4 | WES | 10 | | | fume | WES |
| AU | aluminium oxide | 1344-28-1 | WES | 10 | | | i, noAsb_less1Sil | WES |
| AU | silicon dioxide, amorphous (silicon dioxide) | 7631-86-9 | WES | 2 | | | r, dust, fume | WES |

Notation

Ceiling-C Ceiling value is a limit value above which exposure should not occur

dust As dust

fume As fume

i Inhalable fraction

noAsb_less1 Contains no asbestos and less than 1% free crystalline silica

Sil

r Respirable fraction

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Relevant DNELs of components

| Name of substance | CAS No | Endpoint | Threshold level | Protection goal, route of exposure | Used in | Exposure time |
|-------------------|-----------|----------|---------------------|------------------------------------|-------------------|-------------------------|
| Calcium oxide | 1305-78-8 | DNEL | 1 mg/m ³ | human, inhalatory | worker (industry) | chronic - local effects |
| Calcium oxide | 1305-78-8 | DNEL | 4 mg/m ³ | human, inhalatory | worker (industry) | acute - local effects |

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| Relevant PNECs of components | | | | | | |
|------------------------------|-----------|-----------|-----------------|-----------------------|------------------------------|------------------------------|
| Name of substance | CAS No | End-point | Threshold level | Organism | Environmental compartment | Exposure time |
| Calcium oxide | 1305-78-8 | PNEC | 0.37 mg/l | aquatic organisms | freshwater | short-term (single instance) |
| Calcium oxide | 1305-78-8 | PNEC | 0.24 mg/l | aquatic organisms | marine water | short-term (single instance) |
| Calcium oxide | 1305-78-8 | PNEC | 2.27 mg/l | aquatic organisms | sewage treatment plant (STP) | short-term (single instance) |
| Calcium oxide | 1305-78-8 | PNEC | 817.4 mg/kg | terrestrial organisms | soil | short-term (single instance) |

8.2 Exposure controls

Individual protection measures (personal protective equipment)

Eye/face protection



Use safety goggle with side protection.

Skin protection



• hand protection

Hand protection is not required.

Respiratory protection



Usually no personal respiratory protection necessary.

Environmental exposure controls

Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|-----------------|
| Physical state | solid |
| Form | spherical |
| Colour | transparent |
| Odour | odourless |
| Melting point/freezing point | 1,475 °C |
| Boiling point or initial boiling point and boiling range | not determined |
| Flammability | non-combustible |

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| | |
|---------------------------------|----------------------|
| Lower and upper explosion limit | not relevant (solid) |
| Flash point | not applicable |
| Auto-ignition temperature | not determined |
| Decomposition temperature | not relevant |
| pH (value) | not applicable |
| Kinematic viscosity | not relevant |

Solubility(ies)

Water solubility (The study does not need to be conducted because the substance is known to be insoluble in water)

Partition coefficient

Partition coefficient n-octanol/water (log value): not relevant (inorganic)

Vapour pressure not determined

Density and/or relative density

Density 2.5 g/cm³
Relative vapour density not relevant (solid)
Bulk density 1,460 - 1,510 kg/m³

Particle characteristics

Particle size 0.75 - 1 mm

Other safety parameters

Oxidising properties none

9.2 Other information

Information with regard to physical hazard classes: hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics: There is no additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

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10.5 Incompatible materials

There is no additional information.

10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to GHS

This mixture does not meet the criteria for classification.

Acute toxicity

Shall not be classified as acutely toxic.

| Acute toxicity of components | | | | | |
|------------------------------|-----------|--------------------------|----------|---------------|---------|
| Name of substance | CAS No | Exposure route | Endpoint | Value | Species |
| Silicon dioxide | 7631-86-9 | oral | LD50 | >5,000 mg/kg | rat |
| Silicon dioxide | 7631-86-9 | inhalation: dust/mist | LC50 | >5,01 mg/l/4h | rat |
| Silicon dioxide | 7631-86-9 | dermal | LD50 | >5,000 mg/kg | rabbit |
| Calcium oxide | 1305-78-8 | oral | LD50 | >2,000 mg/kg | rat |
| Aluminium oxide | 1344-28-1 | oral | LD50 | >15,900 mg/kg | rat |

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

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Symptoms related to the physical, chemical and toxicological characteristics

- **If swallowed**

Data are not available.

- **If in eyes**

Data are not available.

- **If inhaled**

Data are not available.

- **If on skin**

Data are not available.

- **Other information**

Health effects are not known.

11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$.

SECTION 12: Ecological information

12.1 Toxicity

| Aquatic toxicity (acute) of components | | | | | |
|--|-----------|----------|-------------|-----------------------|---------------|
| Name of substance | CAS No | Endpoint | Value | Species | Exposure time |
| Silicon dioxide | 7631-86-9 | LC50 | >5,000 mg/l | fish | 96 h |
| Silicon dioxide | 7631-86-9 | EC50 | >5,000 mg/l | aquatic invertebrates | 48 h |
| Silicon dioxide | 7631-86-9 | ErC50 | >173.1 mg/l | algae | 72 h |
| Calcium oxide | 1305-78-8 | LC50 | 50.6 mg/l | fish | 96 h |
| Calcium oxide | 1305-78-8 | EC50 | 49.1 mg/l | aquatic invertebrates | 48 h |
| Calcium oxide | 1305-78-8 | ErC50 | 184.6 mg/l | algae | 72 h |

| Aquatic toxicity (chronic) of components | | | | | |
|--|-----------|----------|-------------|-----------------------|---------------|
| Name of substance | CAS No | Endpoint | Value | Species | Exposure time |
| Silicon dioxide | 7631-86-9 | EC50 | >1,000 mg/l | microorganisms | 3 h |
| Silicon dioxide | 7631-86-9 | NOEC | 86.03 mg/l | fish | 30 d |
| Calcium oxide | 1305-78-8 | LC50 | 53.1 mg/l | aquatic invertebrates | 14 d |
| Calcium oxide | 1305-78-8 | EC50 | 300.4 mg/l | microorganisms | 3 h |
| Calcium oxide | 1305-78-8 | NOEC | 32 mg/l | aquatic invertebrates | 14 d |

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

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12.5 Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0,1\%$.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods



Consult the appropriate local waste disposal expert about waste disposal.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packagings

Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions. Non-contaminated packages may be recycled.

SECTION 14: Transport information

- | | |
|---|---|
| 14.1 UN number | not subject to transport regulations |
| 14.2 UN proper shipping name | not assigned |
| 14.3 Transport hazard class(es) | not assigned |
| 14.4 Packing group | not assigned |
| 14.5 Environmental hazards | non-environmentally hazardous acc. to the dangerous goods regulations |
| 14.6 Special precautions for user | There is no additional information. |
| 14.7 Transport in bulk according to IMO instruments | The cargo is not intended to be carried in bulk. |
| 14.8 <u>Information for each of the UN Model Regulations</u> | |
| Transport information | National regulations |
| Not subject to transport regulations. | UN RTDG |
| International Maritime Dangerous Goods Code (IMDG) - Additional information | |
| Not subject to IMDG. | |
| International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information | |
| Not subject to ICAO-IATA. | |

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SECTION 15: Regulatory information

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

There is no additional information.

National regulations(Australia)

Australian Inventory of Chemical Substances(AICS)

All ingredients are listed or exempt from listing.

Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

National inventories

| Country | Inventory | Status |
|---------|------------|-------------------------------------|
| AU | AIIC | all ingredients are listed |
| CA | DSL | all ingredients are listed |
| CN | IECSC | all ingredients are listed |
| EU | ECSI | all ingredients are listed |
| EU | REACH Reg. | all ingredients are listed |
| JP | CSCL-ENCS | all ingredients are listed |
| JP | ISHA-ENCS | not all ingredients are listed |
| KR | KECI | all ingredients are listed |
| MX | INSQ | all ingredients are listed |
| NZ | NZIoC | all ingredients are listed |
| PH | PICCS | all ingredients are listed |
| TR | CICR | all ingredients are listed |
| TW | TCSI | all ingredients are listed |
| US | TSCA | all ingredients are listed (ACTIVE) |
| VN | NCI | all ingredients are listed |

Legend

| | |
|------------|---|
| AIIC | Australian Inventory of Industrial Chemicals |
| CICR | Chemical Inventory and Control Regulation |
| CSCL-ENCS | List of Existing and New Chemical Substances (CSCL-ENCS) |
| DSL | Domestic Substances List (DSL) |
| ECSI | EC Substance Inventory (EINECS, ELINCS, NLP) |
| IECSC | Inventory of Existing Chemical Substances Produced or Imported in China |
| INSQ | National Inventory of Chemical Substances |
| ISHA-ENCS | Inventory of Existing and New Chemical Substances (ISHA-ENCS) |
| KECI | Korea Existing Chemicals Inventory |
| NCI | National Chemical Inventory |
| NZIoC | New Zealand Inventory of Chemicals |
| PICCS | Philippine Inventory of Chemicals and Chemical Substances (PICCS) |
| REACH Reg. | REACH registered substances |
| TCSI | Taiwan Chemical Substance Inventory |
| TSCA | Toxic Substance Control Act |

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

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SECTION 16: Other information

Indication of changes (revised safety data sheet)

| Section | Former entry (text/value) | Actual entry (text/value) | Safety-relevant |
|---------|--|---|-----------------|
| 2.3 | Results of PBT and vPvB assessment: This mixture does not contain any substances that are assessed to be a PBT or a vPvB. | Results of PBT and vPvB assessment: Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0,1\%$. | yes |
| 2.3 | | Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$. | yes |
| 15.1 | | National inventories: change in the listing (table) | yes |

Abbreviations and acronyms

| Abbr. | Descriptions of used abbreviations |
|-------------|--|
| CAS | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances) |
| Ceiling-C | Ceiling value |
| DGR | Dangerous Goods Regulations (see IATA/DGR) |
| DNEL | Derived No-Effect Level |
| EC50 | Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval |
| ED | Endocrine disruptor |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| ELINCS | European List of Notified Chemical Substances |
| Erc50 | \equiv EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (Erc50) relative to the control |
| Eye Dam. | Seriously damaging to the eye |
| Eye Irrit. | Irritant to the eye |
| GHS | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations |
| IATA | International Air Transport Association |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA) |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods Code |
| LC50 | Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval |
| LD50 | Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval |
| NLP | No-Longer Polymer |
| NOEC | No Observed Effect Concentration |
| PBT | Persistent, Bioaccumulative and Toxic |
| PNEC | Predicted No-Effect Concentration |
| Skin Corr. | Corrosive to skin |
| Skin Irrit. | Irritant to skin |

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| Abbr. | Descriptions of used abbreviations |
|--------------|---|
| STEL | Short-term exposure limit |
| STOT SE | Specific target organ toxicity - single exposure |
| TWA | Time-weighted average |
| UN RTDG | UN Recommendations on the Transport of Dangerous Good |
| vPvB | Very Persistent and very Bioaccumulative |
| Water-react. | Material which, in contact with water, emits flammable gases |
| WES | Safe Work Australia: Workplace exposure standards for airborne contaminants |

Key literature references and sources for data

Safe Work Australia's Code of Practice for Labelling of Workplace Hazardous Chemicals (under WHS Regulations).

UN Recommendations on the Transport of Dangerous Good. International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties. The classification is based on tested mixture.

Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

| Code | Text |
|------|---|
| H261 | In contact with water releases flammable gases. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H335 | May cause respiratory irritation. |

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.