

**Glass beads**

EU Safety Data Sheet acc. to Attachment II EC Reg. 1907/2006 (REACH)

First created on: 29.12.2008

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Note: Non hazardous material, therefore it is not necessary to provide you with a safety data sheet according to Article 31 of the EC Regulation 1907/2006 (REACH)

**1. Identification of the substance / the preparation / the product****1.1 Identification of the substance / the preparation / the product**

Trade Name: Glass beads

**1.2 Application of the substance / the preparation / the product**

To be used as: Grinding media in pearl mills for grinding colour pigments, paint, agro chemicals and minerals.  
Polishing element for the optical industry. Reflector  
Bead for roadmarking, filling media in electronics for protection against explosion, stirring media in aerosol.

**2. Possible dangers**

Classification: It does not have to be labelled according to the Preparation Guideline, respectively EU-directives 67/548/EWG or 1999/45/EG,

Additional danger advice: In case of inappropriate handling different kinds of injuries (cuts) are possible – keep away from children!  
Risk of slipping due to spillage of product!

It is not necessary that the product has to be labelled according EU-directives or national laws.

**3. Composition / detailed information of the ingredients****3.1 Chemical characteristics**

Description: Beads made of Soda lime glass  
CAS# 65997-17-3  
EINECS# 266-046-0

**3.2 Ingredients**

Name	Symbol, R-/ S-phrases	Weight in %		CAS-No.	EG-No. (EINECS)	REACH Reg.No.
main components		reference	tolerance			
Silicon dioxide SiO <sub>2</sub>	amorphous, no hazardous substance	72,50 %	± 0,90	7631-86-9	231-545-4	----
Sodium oxide Na <sub>2</sub> O	C; R14-34	13,00 %	± 0,80	1313-59-3	215-208-9	----
Calcium oxide CaO	Xi; R37-38-41	9,06 %	± 0,28	1305-78-8	215-138-9	----
Magnesium oxide MgO	no hazardous substance	4,22 %	± 0,10	1309-48-4	215-171-9	----
Aluminium oxide Al <sub>2</sub> O <sub>3</sub>	no hazardous substance	0,58 %	± 0,18	1344-28-1	215-691-6	----

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**4. First-aid measures**

General Advice:	Remove soiled Clothes
After Inhalation:	Provide fresh air
After Skin Contact:	Clean Skin with water and soap
After Eye Contact:	Remove particle carefully from the affected eye. If need be, remove contact lense. Rinse eye thoroughly with plenty of water. Consult a physician if needed.
After Swallowing:	Consult a physician after swallowing large quantities.
Advise to the physician:	Decontamination and symptomatic treatments are in most cases sufficient.

**5. Fire fighting actions**

Suitable extinguishing agents:	The product itself is neither combustible nor explosive. Extinguishing agents has to be coordinated with the surrounding fire.
For safety reasons unsuitable extinguishing agents:	largely unknown
Special dangers:	no information available
Special protective equipment:	protective equipment has to be coordinated with surrounding fire

**6. Measured by accidental release**

Personal protection:	Avoid the build up of dust. Do not inhale any dust.
Envionmental measures:	It is not necessary to take actions in respect of product. Disposal has to be done as specified in chapter 13.
Cleaning procedures and absorption:	Dry absorption and if possible re-utilisation of the material

**7. Handling and storage****7.1 Handling**

Safety advice	High risk of slipping due to spillage of product. Avoid dust.
Technical protective measures:	No data available. The product itself is neither combustible nor explosive

**7.2 Storage**

Requirements for storage in rooms and containers:	No special storage necessary. Store in tightly closed (original) containers.
Joint storage:	No specially known incompatible materials
Storage class:	LGK 13 (flammable solid materials)

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**8. Exposure limits and personal protection****8.1 Exposure limits**

The applicable limits which are to be complied with and monitored, particularly during mechanical processing with a risk of dust:

Parameter	CAS-Number	EINECS	Value	Type of limit
General dust limit	----	----	10 mg/m <sup>3</sup> E 3 mg/m <sup>3</sup> A	Limit at work (AGW) acc. to the TRGS 900 Regulation
Silica, amorphous (Silicon dioxide)	7631-86-9	231-545-4	4 mg/m <sup>3</sup> E	Limit at work (AGW) acc. to the TRGS 900 Regulation
Aluminium in Urine	7429-90-5	231-072-3	200 µg/l	biological limit (BGW) acc. to TRGS 903, sampling is done at the end of shift
				E = breathable dust A = alveolar dust

**8.2.1 Exposure limits and monitoring in the workplace**

An on-site extraction system is required in the event of gathered dust and thermal pollution from the product.

Respiratory protection:



Use respiratory protection in the event of dust exposure, e.g. a P1 dust mark that conforms to DIN 3181 or a half mask with particle filter FFP1 conforms to DIN EN 140. Limited wearing period according to BRG 190

Hand protection:



Protective gloves are generally not required. However, for constant skin contact it is necessary to use gloves of low mechanical and special material demands. Compared to BGR 195, e.g.

Material: Mat. thickness Penetration time:  
Butyl rubber min. 0,4 mm min. 30 min. acc. to DIN EN 374

Eye protection:



Side-shielded safety goggles that conform to DIN 58211 / DIN EN 166 are required when carrying out mechanical processing with exposure to dust.

Body protection:

Generally, normal working clothes are sufficient.

General work protection and hygiene measures:

Do not inhale dust. Avoid contact with eyes, skin and clothes. Do not eat, drink, smoke or snuff during work. Wash hands prior to breaks and after finishing work. Change soiled clothes. Protect skin by using e.g. skin lotions and -creams.

**8.2.2 Restrictions and monitoring of the environmental exposure**

There are no known properties of the product, that pose dangers to the environment. General operational measures are sufficient to protect the environment.

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**9. Physical and chemical properties****9.1 General details**

Physical condition: solid  
Shape: beads  
Odour: odourless  
Colour: transparent

**9.2 Important details regarding health-/ environmental protection as well as safety**

pH value: Non-applicable  
Melting point: 1446°C  
Softening point (Littleton point): 734°C (10<sup>7,65</sup> dPas)  
Transformation temperature: 549°C  
Self-ignition point (Solid/Gas): Non-applicable  
Blaze properties: Non-applicable  
Risk of explosion: Non-applicable  
Vapour pressure: Non-applicable

Specific weight: 2,50 kg/dm<sup>3</sup>  
Bulk density: 1,50 kg/dm<sup>3</sup>  
Water solubility: Insoluble in water  
Partition coefficient n-Octanol/  
water: Non-applicable  
Viscosity: Non-applicable  
Vapour density: Non-applicable  
Evaporation speed: Non-applicable

**9.3 Additional details**

There are no further details required regarding safety-relevant parameters.

**10. Stability and reactivity**

In case of appropriate handling and storage no dangerous reactions will occur.

**10.1 Chemical resistance according to the DIN norm**

Hydrolytic class	HGB 3	(DIN ISO 719)
Acid class	S 2	(DIN 12116)
Alkali class	A 2	(DIN ISO 695)

**11. Toxicological data**

There is no toxicological data available.

**12. Environmental details**

Ecological respectively ecotoxicological data is not available.

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**13. Disposal information**

No waste is produced from the product, that would required special supervision according to the German "Closed Substance Waste, Management Act" (Krw/-AbfG) respectively EU-directives 91/689/EEG and 2006/12/EG.

**13.1 Product**

Re-use product remainders again if possible

**13.2 Uncleaned Packaging**

Recommendation: Packaging can be used again if not contaminated. Cleaning agent: water

**14. Transport details**

Non-hazardous materials in terms of ADR/GGVS, RID/GGVE, ICAO/IATA, IMDG.

**15. Legal regulations****15.1 EU Regulations**

Classification and labelling: None in accordance to the EU Directive 67/548/EEC (substance directive), 1999/45/EC (dangerous preparation directive) or in accordance to any other known EU regulations.

**15.2 National Regulations**

Classification and labelling: None according to the Dangerous Substances Directive (DSD) or any other known national regulation.

Working restrictions: None according to DSD, ArbStoffG or MuSchV

Statutory order on hazardous incidents: Does not subject to statutory order on hazardous incidents

Water pollutions class: No water pollution class, not hazardous to water according to VwVwS (classification of substances hazardous to water)

**16. Additional information****16.1 Summary of the Risk-/Safety-Phrases (chapter 3.2) (rating of independent substances)**

R14 Reacts violently with water  
R34 Causes chemical burns  
R37 Irritation to respiratory system  
R38 Irritation to skin  
R41 Risk of serious damage to eyes

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*Alle details noted in this data sheet correspond to our knowledge at the time this data sheet has been put into effect. This information should be used as a guideline for a safe treatment in accordance with the products mentioned in our material safety data sheet, during storage, production, transport and disposal. This information is not applicable to other products, to newly produced materials, if the product mentioned in this material safety data sheet is mixed or blended with other articles or when other transformations are made to it.*

*Date of the current version:* 29.12.2008

*Reason for the current version:* Update of Chapter 9 (Temperatures)