



Note: The product is not classified as dangerous, and contains no substances classified as dangerous, so there is no Obligation to issue a safety data sheet according to European Regulation 1907/2006/EC, Art. 31 (Requirements for safety data sheets).

The following information complies with the Obligation according to Art. 32 (for substances on their own or in preparations for which a safety data sheet is not required), and was issued like the structure by Annex II.

1. Identification of the substance / the preparation / the product and identification of the company

1.1 Identification of the substance / the preparation / the product

Trade Name: **SiLibeads - Glassbeads Type S, Microglassbeads**

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.

1.3 Company identification

Manufacturer / Supplier: Sigmund Lindner GmbH
Oberwarmensteinacher Str. 38
95485 Warmensteinach / GERMANY
Phone: +49-9277-9940
Fax: +49-9277-99499
Web: www.sili.eu
E-Mail: reach@sigmund-lindner.com

Information provided by: Mr. Michael Dressler (Quality and Innovation)
Mr. Reinhold Schneider (Quality Assurance)

1.4 Emergency Call

Emergency information: Phone: +49-9277-9940

This telephone number can be reached during office hours (Central European Time):

Monday - Thursday: 7.00 AM - 4.30 PM

Friday: 7.00 AM - 1.00 PM

2. Possible dangers

GHS/CLP-Classification: Not a dangerous product according to the Globally Harmonised System (GHS) and CLP.
It does not have to be labelled according European Regulation (EC) No. 1272/2008.



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

3. Composition / detailed information on 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	GHS/CLP Classification	Weight	CAS-No.	EC-No. (EINECS)	REACH Reg.No.
main components		Reference values			
Silicon dioxide SiO ₂	amorphous, no hazardous substance	72.30 %	7631-86-9	231-545-4	----
Sodium oxide Na ₂ O	WaterReact.2;H261 Skin Corr. 1B;H314	13.30 %	1313-59-3	215-208-9	----
Calcium oxide CaO	STOT.SE.3;H335 Skin.Irrit.2;H315 Eye Dam. 1,H318	8,90 %	1305-78-8	215-138-9	----
Magnesium oxide MgO	no hazardous substance	4.00 %	1309-48-4	215-171-9	----
further		1.50 %			

The heavy metal content of SiLibeads Type S/Microglass remain within the permitted limits of European directive 2011/65/EC (RoHS - Restriction of use of certain hazardous substances in electrical and electronic equipment) and European standard EN 71-3 (Safety of toys).

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 have to be coordinated with the surrounding fire.

For safety reason unsuitable extinguishing agents: Unknown.

Special dangers: No information available.

Special protective equipment: Protective equipment has to be coordinated with the surrounding fire

6. Measures by accidental release

Cleaning procedures and absorption: Risk of slipping if the product is spilled on the floor. Isolate the area and sweep the floor by vacuum in order to collect the beads to avoid slipping on the beads.

Environmental measures: No special actions necessary. Disposal look at 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 (non-flammable solid materials)

8. Exposure limits and personal protection

8.1 Exposure limits

Mechanical dry processing of the product can generate a risk of dust: The local limits of dust concentration at the work have to be considered.

Parameter	CAS-Number	EINECS	Value	Type of limit
General dust limit	----	----	10 mg/m ³ E 3 mg/m ³ A	Limit at work (AGW) according to the TRGS 900 Regulation
Silica, amorphous (Silicon dioxide)	7631-86-9	231-545-4	4 mg/m ³ E	Limit at work (AGW) according to the TRGS 900 Regulation
				E = breathable dust A = alveolar dust

8.2.1 Exposure limits and monitoring in the workplace

General work protection

Do not inhale dust. Avoid contact with eyes and skin.

In addition it is recommend to wear hand-, skin- and mouth protections.

Hygiene measure:

Do not eat, drink, smoke or snuff during work.
Wash hands prior to breaks and after finishing work.
Change soiled clothes.

Technological protection measure:

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

Respiratory protection:



Mask filter is required when mechanical processing is done with dust exposure, e.g. a P1 dust mask that conforms to EN 143 or a half mask with particle filter FFP1 or PP2 conforms to EN 141
or
an N-95 NIOSH-certified dust mask or better. Voluntary respirator use is permitted by OSHA in 29 CFR 1910.134(c)(2)(i) and Appendix D.

Hand protection:



Suitable protective gloves are recommended, e.g.
Material: Mat. thickness Penetration time:
Butyl rubber min. 0.4 mm min. 30 min. acc. to
EN 374

Eye protection:



Side-shielded safety glasses or goggles that conform to EN 166
or
29 CFR 1910.133(a)(2) are required when carrying out mechanical processing with exposure to dust. Safety glasses or goggles must meet the requirements of ANSI Z87.1–2003, "American National Standard Practice for Occupational and Educational Eye and Face Protection."

Body protection:

Generally, normal working clothes are sufficient.



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.

9. Physical and chemical properties

9.1 General details

Physical condition:	solid
Shape:	beads
Odor:	odorless
Color:	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 ^{7.65} 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/l
Bulk density:	1.13 – 1.52 kg/l (dependent upon diameter)
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 resistance on Glass beads:	HGB 2 (based on DIN ISO 720)
Acidic resistance on Glass beads:	S2 (according to DIN 12116)
Alcaline resistance on Glass beads:	A1 (according to DIN ISO 695)



11. Toxicological data

There is no toxicological data available.

12. Environmental details

Ecological respectively ecotoxicological data is not available.

13. Disposal information

No waste is produced from the product that would require special supervision according to directive (EU) No. 1357/2014

or

under the Resource Conservation and Recovery Act (RCRA).

Please consult national laws and local regulations in force for disposal or landfill.

Depending on the type of application, products after use may contain other chemicals on their surface. For specific application check rules on a case by case basis.

13.1 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 and USDOT.

15. Legal regulations

15.1 EU Regulations

Classification and labelling:

None in accordance to the Regulation (EC) No. 1272/2008 (CLP) or in accordance to any other known regulations.



15.2 National Regulations (UK)

Classification and labelling:

The product is not due to labelling according to UK regulations.

Other UK regulations and guidances:

- Health and Safety at Work Act 1974.
- The Management of Health and Safety at Work regulations 1992.
- L5 Control of substances hazardous to Health. The Control of Substances Hazardous to Health Regulations 2002.
- Approved codes of practice and guidance.
- Guidance Note EH40 - Occupational Exposure Limits.

16. **Additional information**

16.1 Summary of the H-Statements (chapters 3.2) (rating of independent substances)

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.

16.2 Recommended Limitations of Use

SiLibeads Glassbeads are not a toy and must therefore be stored away from children.

A resale as toy requires the EC conformity evaluation and the distributor's compliance with the legal regulations. We expressly point out, that a conformity evaluation in this sense has not been carried out by us.

**16.3 Further information**

Company details:	Sigmund Lindner GmbH Oberwarmensteinacher Str. 38 95485 Warmensteinach / GERMANY Phone: +49-9277-9940 Fax: +49-9277-99499 Web: www.sili.eu
Technical contacts: information	Dr. Peter Hitzschke (Product Manager Glassbeads) Dr. Alexander Wölfel (Product Manager Glassbeads)

All 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:	2017-01-31
Reason for the current version:	Update Chapter 15.1, EU-Regulations
Replaced issue:	MSDS SiLibeads Type S, Mircoglassbeads; Version 15/2016