



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 P + M Borosilicate**

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

To be used as: Special ball bearings in roller technology and mechanical conveying handling. Ball valves in pump technology and dispensers. Mixing ball in insulin cartridges

### 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](http://www.sili.eu)  
E-Mail: [reach@sigmund-lindner.com](mailto: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 Borosilicate 3.3  
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 <sub>2</sub>	amorphous, no hazardous substance	81 %	7631-86-9	231-545-4	----
Boric oxide B <sub>2</sub> O <sub>3</sub>	Eye.Irrit.2;H319 Skin.Irrit.2;H315	13 %	1303-86-2	215-125-8	----
Sodium oxide Na <sub>2</sub> O +	WaterReact.2;H261 Skin Corr.1B;H314	4 %	1313-59-3	215-208-9	----
Potassium oxide K <sub>2</sub> O	self-rating: WaterReact.2;H261 Acute Tox. 4,H302 Skin Corr.2;H314		12136-45-7	235-227-6	----
Aluminium oxide Al <sub>2</sub> O <sub>3</sub>	no hazardous substance	2 %	1344-28-1	215-691-6	----
further					

The heavy metal content of SiLibeads made of Borosilicate 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. In case of persisted discomfort contact a physician.

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 necessary, remove contact lenses. Rinse eyes thoroughly with plenty of water. Consult a physician if needed.

After Swallowing: Consult a physician after swallowing.

Advice for the physician: Irritations of skin, mucosa, eyes and the respiratory system by dust are possible. In most cases decontamination and symptomatic treatments are 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.

## 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 is necessary. Store in tightly closed (original) containers.

Joint storage: No specially known incompatible materials.

Storage class: Storage class 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 <sup>3</sup> E 3 mg/m <sup>3</sup> A	Limit at work (AGW) according 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) 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:	1663 °C
Softening point (Littleton point):	787 °C (10 <sup>7,65</sup> dPas)
Transformation temperature:	586 °C
Self-ignition point (Solid/Gas):	Non-applicable
Blaze properties:	Non-applicable
Risk of explosion:	Non-applicable
Vapour pressure:	Non-applicable

Specific weight:	2.23 kg/l
Bulk density:	1.10 kg/l
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 Glassbeads:	HGB 1 (based on DIN ISO 720)
Acidic resistance on Glassbeads:	S1 (according to DIN 12116)
Alcaline resistance on Glassbeads:	A2 (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

Assessment according to Food Legislation:

SiLibeads made of Borosilicate are a consumer good in the in the Sense of §2 Clause 6, No. 1, of the German Food and Feed Code (LFGB), commodities and feeding products. Therefore they comply with the legal requirements.

SiLibeads made of Borosilicate comply with the requirements § 31 of the German Food and Feed Code (LFGB) and the European Food Regulation 1935/2004/EC, Article 3.



Compliance according to other legal regulations:

SiLibeads made of Borosilicate comply with the requirements of the European Regulation 1907/2006/EC on the registration, evaluation, authorisation and restriction of chemical substances (REACH) and the Regulation 1272/2008/EC on the classification, labelling and packaging of chemical substances (CLP).

## 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.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

### 16.1 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.

### 16.2 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](http://www.sili.eu)

Technical contacts:  
information

Mr. Michael Dressler (Product Manager Pharmaceutical Ind.)  
Dr. Alexander Wölfel (Product Manager Glassbeads)  
Dr. Peter Hitzschke (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: 2016-07-29

Reason for the current version: Update Chapter 13, Disposal information

Replaced issue: MSDS SiLibeads Type P/M Borosilicate; Version 10/2015