

The Surface Finishing Equipment Group Ltd



Surface Finishing
Equipment Group

TECHNICAL & MATERIAL

SAFETY DATA SHEET

GLASS BEAD

Glass Beads Abrasive with their hardness and spherical form can remove impurities and metal oxides without damaging the treated surfaces. Glass does not react chemically with other materials so that the micro-beads do not create any corrosion on the treated surfaces with no deposits of foreign substances.

Chemical Name & Synonyms	Soda-lime Silicate -Glass				
Chemical Family	Silicate glass without free silica				
Formula	SiO ₂	71- 73%	Na ₂ O	13 -15%	
	MgO	3-5%	CaO	8-10%	
	Al ₂ O ₃	0.5-2%	K ₂ O	0.2-0.6%	
Physical Properties					
Boiling Point	N/A	Vapour Pressure	N/A		
Percent Volatile by Volume	Nil	Vapour Density	N/A		
Evaporation Rate	N/A	Odour	Nil		
Refractive Index	1.52	Oil Absorption (ASTM)	17		
Solubility in Water	Not Soluble	Mohs	6		
Absolute Specific Gravity (H ₂ O=1)	2.46	Knoop Load 100:515kg/mm ²			
Apparent Specific Gravity	1.6kg/dm ³	Hardness DPH load 50kg:540kg/mm ²			
Specific Heat Average	0.18kcal/mh°C	Dielectric Strength	4,500 kV/cm		
Dielectric Constant	7.2 (1MC at 20°C)	Expansion Coefficient	8.5 x 10 -6		

Grades / Sizes :-

Microns	Mesh	Inches	Sphere Count
590-840	20-36	.0234-.0331	65 %
420-590	30-40	.0165-.0234	70 %
250-420	40-60	.0098-.0165	70 %
177-297	50-80	.0070-.0117	80 %
149-250	60-100	.0059-.0098	80 %
105-210	70-140	.0041-.0083	80 %
74-149	100-200	.0029-.0059	90 %
53-105	140-270	.0021-.0041	90 %
44-88	170-325	.0017-.0035	95 %
30-62	270-500	.0012-.0024	95 %

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Reactivity Data	
Stability	Nothing to avoid
Instability	Nothing to avoid
Incompatibility	Avoid Hydrofluoric Acid
Hazardous Decomposition Products	None
Polymerisation Hazard	Nothing to avoid
Special Protection Information	
Ventilation	Local Exhaust Recommended
Respiratory Protection	Dusk Mask Recommended
Eye Protection	Goggles Recommended
Hands	Gloves recommended
Packaging Polythene - lined paper bags containing sachet of desiccant as necessary	
Transportation No special precautions required	
Storage Store in a dry environment under cover Avoid extreme temperature changes	
Spillage or Leakage Procedures Spillage may result in slippery conditions. Beads should be cleared up immediately without creating dust	
Waste Disposal Since glass beads are inert they may be disposed of in a commercial land - fill site	



HEALTH AND SAFETY DATA SHEET

GLASS BEAD

Product and Reference: Glass Bead Abrasive

Date of Issue: 08/08/2013

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

Company: The Surface Finishing Equipment Group Ltd

Product Code: GB-Grade

Intended Use: Abrasive Media

Name and full address: The Surface Finishing Equipment Group Ltd

Comprising :

Hogg Blasting & Finishing Equipment Ltd
Unit 10 Armstrong Road, Armstrong Industrial Estate, Washington,
Tyne & Wear, United Kingdom, NE37 1PR.
Tel. (0191) 415 3030 Fax (0191) 415 5345

AND

Abraclean Ltd
Ann Street, Stockport, Cheshire. SK5 7PP
Tel: (0161) 480 8087 Fax: (0161) 480 4424

2. COMPOSITION / INFORMATION ON COMPONENTS

Chemical Composition

Soda-lime glass beads

SiO ₂	:	< 75%
Na ₂ O	:	< 15%
CaO	:	< 10%
MgO	:	< 5%
Free iron:		0.1% (max by weight)

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3. HAZARD IDENTIFICATION

Main Hazards	Dust from handling operations
Health Effects - Eyes	Dust may cause slight transient irritation.
Health Effects – Skin	Repeated or prolonged contact may produce irritation.
Health Effects - Ingestion	None known
Health Effects - Inhalation	Exposure to dust may have the following effects:- irritation of nose, throat and respiratory tract,

4. FIRST AID MEASURES

General:

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation:

Remove to fresh air, keep the patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Give nothing by mouth. If unconscious, place in the recovery position and seek medical advice.

Skin Contact:

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a proprietary skin cleaner.

Ingestion:

Mouth rinse and give water to drink.

Eye:

Eye wash with plenty of water.

5. FIRE FIGHTING MEASURES

Extinguishing media: Water

6. ACCIDENTAL RELEASE MEASURES

Recovery measures:

Product can be swept up dry or wet. Personnel should use appropriate personal protective equipment particularly if material is in powder form and dry.

7. HANDLING AND STORAGE

Handling: Avoid breathing dust and spillage whilst handling.

The Manual Handling Operations Regulations may apply to the handling of bags when carrying out assessments.

Storage:

The storage and use of this product is not subject to any requirements but it should be kept dry where this is important for further process use.

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8. EXPOSURE CONTROLS /PERSONAL PROTECTION

General:

- Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should only be employed in processes in which this product is used under supervision.
- Persons with a history of skin sensitisation problems should only be employed in processes in which this product is used under appropriate medical supervision.

Engineering Measures:

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction during process use.

Occupational Exposure Standards:

- | | |
|--------------------|--|
| 1. Total dust | Less than 10 mg per cubic metre 8h TWA |
| 2. Respirable dust | Less than 4 mg per cubic metre 8h TWA |

Personal Protection:

All Personal Protective Equipment, include Respiratory Protective Equipment, used to control exposure to hazardous substances must be selected to meet the requirements of the COSHH Regulations.

Respiratory Protection:

None except where used in applications that would cause dust, and then appropriate respiratory protection should be used depending on the application.

Hand Protection:

When skin exposure may occur, advice should be sought from glove suppliers on appropriate types. Barrier creams may help to protect exposed areas of the skin but are not substitutes for full physical protection.

Eye Protection:

Eye protection designed to protect against exposure which should be an EC approved helmet in blasting operations.

Skin Protection:

Cotton or cotton/synthetic overalls or coveralls are normally suitable. Grossly contaminated clothing should be removed and the skin washed with soap and water or a proprietary skin cleaner.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Shape	:	Spherical and smooth
Colour	:	White
Specific gravity	:	2.4 – 2.6
Bulk density	:	1.5 g/cc
Hardness	:	Mohs 5

EINECS reference – Not applicable

CAS No 1344-28-1 – Not applicable

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions

11. TOXICOLOGICAL INFORMATION

Acute Toxicity	No relevant studies identified
Irritancy - Eyes	Splashes in the eye may cause irritation and irreversible local damage
Irritancy - Skin	Repeated or prolonged contact with the product may lead to skin irritation
Sub-acute/Subchronic Toxicity	No relevant studies identified.
Chronic Toxicity/Carcinogenicity	Appropriate protective measures and good hygiene practices should be followed in order to minimise potential exposure.
Genotoxicity	No relevant studies identified.
Reproductive/Developmental	
Toxicity	No relevant studies identified
Human Data	Inhalation over long periods of time may constitute a health hazard
Additional Data	None

12. ECOLOGICAL INFORMATION

There is no data available on the product itself. The Air Pollution Control requirements of regulations made under the Environmental Protection Act may apply to the use of this product.

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13. DISPOSAL CONSIDERATIONS

The material in its supplied form is non hazardous inert solid waste and is classified as such under Appendix A section 10 06 01 of the Consolidated European Waste Catalogue EC Landfill Directive (16th July 2004). The disposal of material after it has been used may cause the product to fall into a different category.

14. TRANSPORT INFORMATION

UN Number	Not regulated
ADR/RID substance ID number	Not regulated
IMDG	Not regulated
Tremcard No. TEC ®	Not regulated

15. REGULATORY INFORMATION

The information contained in this safety data sheet does not constitute the suppliers own assessment of workplace risks as required by other Health and Safety legislation. The provisions of the Health and Safety at Work etc. Act and the Control of Substances Hazardous to Health Regulations apply to the use of this product at work.

16. OTHER INFORMATION

The information contained in this safety data sheet is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications, and we do not accept any liability for any loss or damage, however arising, which may result directly or indirectly from the use of this information.

Further information and relevant advice can be found in: The Control of Substances Hazardous to Health Regulations 1988 (SI 1988. 1657).

The Manual Handling Operations Regulations 1992 (SI 1992:2793)

The Environmental Protection (Duty of Care) Regulations 1992 (SI 1992-2839).