Safety Data Sheet

Date of initial issue : 2024/04/01

1. Identification of the substance / mixture and of the company / undertaking

1.1 Product identifier

Product name : Shin-Etsu Black Quartz (SBQ)
(Black Synthetic Quartz Glass)

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

Relevant identified uses of the product : Materials for semiconductor manufacturing jigs ,etc.

1.3 Details of the supplier of the safety data sheet

Company name	Shin-Etsu Quartz Products Co.,Ltd.
Address	East Tower 9F, Gate City Ohsaki, 1-11-2 Osaki, Shinagawa-ku, Tokyo, 141-0032 Japan
Phone number	+81 3-6737-0227
Fax number	+81 3-5759-6101
Home Page	https://www.sqp.co.jp/

1.4 Emergency telephone number : +81 3-6737-0227

2. Hazards identification

GHS classification and label elements of the product

2.1 Classification of the substance or mixture

Physical and Chemical Hazards

Classification not possible for all physical hazards

Health Hazards

Classification not possible for all health hazards

Environmental Hazards

Classification not possible for all environmental hazards

2.2 Label elements

Pictogram and Symbol	Not applicable
Signal word	Not applicable

Hazard statement

Not applicable

Precautionary statement

Prevention	Not applicable
Response	Not applicable
Storage	Not applicable
Disposal	Not applicable

Specific physical and chemical hazards

- The quartz glass metastasizes to cristobalite (crystalline material) when exposed to high temperatures for a long time, but, as for the crystalline quartz, there might be the carcinogenicity.
- In the case of powder there might be the respiratory obstacle by a long term or the repetition revelation.

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3. Composition / information on ingredients

Mixture / substance selection

3.1 Mixture

Product name	Component	Weight %	CAS No.	EINECS No.
Shin-Etsu Black Quartz	Silica glass	99.9%	60676-86-0	262-373-8
	Carbon	0.1%	7440-44-0	231-153-3

4. First-aid measures

4.1 Descriptions of first-aid measures

General measures	In the case of accident or if you feel unwell, seek medical advice immediately.
If inhaled	Supply with fresh air
If on skin	Wash off fine sized material with plenty of water.
If in eyes	If there is fine sized material in the eye rinse immediately with plenty of water, including under the eyelids. Consult an eye specialist.
If swallowed	In the case of accident or if you feel unwell, seek medical advice.
Information for the doctor	None

4.2 Most important symptoms and effects, both acute and delayed :

None known

4.3 Indication of any immediate medical attention and special treatment needed :

Treatment Treat symptomatically

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5. Fire - fighting measures

5.1 Extinguishing media

Suitable extinguishing media	Use extinguishing media which are appropriate to the environment. Water spray, dry chemical, carbon dioxide or foam.
Unsuitable extinguishing media	Full water jet

5.2 Specific hazards arising from the substance or mixture

Substance is not combustible.

5.3 Advice for fire - fighters

Special protective equipment for fire-fighting	Wear self – contained breathing apparatus. Wear protective gloves/ protective clothing/ ey e protection/ face protection.

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6. Accidental release measures

6.1 Personnel precautions, protective equipment and emergency procedures

Personal precautions	Do not breathe dust. Evacuate area. Wear self – contained breathing apparatus. Wear proper protective equipment

6.2 Environmental precautions

Environmental precautions	Should not be released into the environment.

6.3 Methods and materials for containment and cleaning up

Cleaning up / taking up	Take up using mechanical methods. Avoid generation of dust.

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7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	When handling breakable materials, wear cut-resistant gloves. Use protective glasses.
Preventive measures	Avoid generation of dust. Do not breathe dust.
Advice on general occupational hygiene	Wash hands thoroughly after handling.

7.2 Storage

Requirements for storage areas and containers	Store in a well-ventilated place.

8. Exposure controls / personal protection

8.1 Control parameters

Occupational exposure limits for dusts

Japan Association of Industrial Health (2023) Class 3 : Inorganic dust	2 mg/m^3 (as respirable dust) 8 mg/m^3 (as total dust)

8.2 Exposure controls

Appropriate engineering controls

In case of dust occurrence provide sufficient air exchange and/or ventilation in working rooms.

Install an eye shower and a body shower into a storage and handling work place.

Individual protection measures

Respiratory protection	Avoid inhaling dust. Necessarily if some types of dust are present (respiratory protection filter P3).
Hand protection	Wear protective gloves for example made of leather. When handling breakable material, wear cut-resistant gloves.
Eye protection	Protective glasses. If some types of dust are present, wear tightly sealed goggles.
Skin and body protection	Wear protective clothing
Protective and hygiene measures	Wash hands before breaks and after the work.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Solid
Color	Opaque/ black
Odor	Odorless
pH-value	Not applicable
Melting point	Not applicable
Boiling point / Boiling range	No data available
Flash point	Not combustible
Flammability	Not combustible
Upper explosion limits	No data available
Lower explosion limits	No data available
Vapor pressure	No data available
Relative vapor density	No data available
Density	2.2 g/cm^3
Solubility / Water solubility	Insoluble
Solubility in other solvents	No data available
Partition coefficient : n-octanol / water	No data available
Auto-ignition temperature	Not combustible
Decomposition temperature	No data available
Viscosity (dynamic)	No data available
Viscosity (kinematic)	No data available
Explosive properties	Not explosive
Oxidizing properties	Not classified as oxidizing

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10. Stability and reactivity

10.1 Reactivity

Stable under conditions of normal use.

10.2 Chemical stability

Stable under normal storage / handling conditions

10.3 Possibility of hazardous reactions

Hazardous reactions	No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid	Prevent spread of dust generated in grinding equipment

10.5 Incompatible materials

Materials to avoid	Soluble to hydrofluoric acid

10.6 Hazardous decomposition products

No data available

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11. Toxicological information

11.1 Information on toxicological effects (As the main component silica glass)

Acute toxicity	Oral : No data available Skin : No data available Inhalation (powder) : No data available
Skin corrosion / irritation	Not classified based on available information.
Serious eye damage / eye irritation	Not classified based on available information.
Respiratory sensitization	Not classified based on available information.
Skin sensitization	Not classified based on available information.
Germ cell mutagenicity	Not classified based on available information.
Carcinogenicity	Not classified based on available information.
Reproductive toxicity	Not classified based on available information.
Specific target organ toxicity (single exposure)	Not classified based on available information.
Specific target organ toxicity (repeated exposure)	Not classified based on available information.
Aspiration toxicity	Not classified based on available information.

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12. Ecological information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Assessment	This substance / mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levies of 0.1% or higher..

12.6 Other adverse effects

Hazardous to ozone layer	Not classified based on available information.

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13. Advice on disposal

13.1 Waste treatment methods

Disposal	If residues of products are classified as waste, use the legal requirements to assign the appropriate waste code. Disposal must be made in accordance with official regulations.
Disposal of contaminated packing / recommended detergents	Recycle a container after cleaning, or dispose in accordance with official regulations

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14. Transport information

14.1 UN number

Not regulated as dangerous goods

14.2 UN proper shipping name

Not regulated as dangerous goods

14.3 Transport hazard class

Not regulated as dangerous goods

14.4 Packing group

Not regulated as dangerous goods

14.5 Environmental hazards

Not regulated as dangerous goods

14.6 Special precautions for user

Remarks	Not classified as dangerous in the meaning of transport regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

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15. Regulatory information

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture (As the main component silica glass)

National regulations (Japan)

Industrial Safety and Health Act / Dust obstacle Ordinance on Prevention	Regulated when some types of dust or powder are present.
Enforcement Ordinance of Pneumoconiosis Law	Regulated when some types of dust or powder are present.
Pollutant Release and Transfer Register Law	Not regulated
Poisonous and Deleterious Substances Control Act	Not regulated
Others law	None

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16. OTHER INFORMATION

The information given corresponds to the current state of our knowledge and experience of the product, and is not exhaustive. This applies to product which conforms to the specification, unless otherwise stated. In this case of combinations and mixtures one must make sure that no new dangers can arise. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and protection of human welfare and the environment.

This document is based on the GHS regulations (6th revised edition), and JIS Z 7252/7253:2019.
