



SAFETY DATA SHEET

Amorphous Silica

Suitable Uses

Aggregate,
Abrasive for dry or wet blasting,
Concrete additive

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SAFETY DATA SHEET

Zafa Glass Inc.

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1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Product identifiers

Product name: Amorphous Silica
Brand: Zafa Glass - Panel Glass – Solar Panel Glass
CAS-No.: 112945-52-5

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

Identified uses:

**Aggregate,
Abrasive for dry or wet blasting,
Concrete additive**

1.3. Details of the supplier of the safety data sheet

Company: Zafa Glass Inc. 111 Fredrix Aly, Lawrenceville GA 30046.
Telephone: +1 (678) 670 7599

1.4. Emergency telephone number

Emergency Phone: +1 (678) 670 7599

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture.

2.2 GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Synonyms : Silicon dioxide, Amorphous Silica, Soda Lime Glass
CAS-No.: (112945-52-5)

Name	Ingredients	Compositions
Calcia-Silica-Alumina	CaO, SiO ₂ , Al ₂ O ₃	70-80%
Barium Oxide	BaO	8-14%
Sodium and Potassium Oxide	Na ₂ O, K ₂ O	8-14%
Magnesium Oxide	MgO	0-5%
Titanium Oxide	TiO ₂	< 1%

3.2. Hazardous components

Crystalline silica <= .01 %

This product is virtually crystalline-silica free therefore, does not cause silicosis, a fatal lung disease.

4. FIRST AID MEASURES

4.1. Description of first aid measures

General advice

Move out of affected area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush your eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Material is non-combustible, will not react with firefighting chemicals

5.3. Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4. Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapors, mist or gas. For personal protection see section 8.

6.2. Environmental precautions

No special environmental precautions required.

6.3. Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Further processing of solid materials may result in the formation of dusts. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Hygroscopic.
Storage class (TRGS 510): Non Combustible Solids

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace control parameters

Component CAS-No. Value Control parameters Basis
Amorphous silica 112945-52-5
TWA 20.000000 Million particles per cubic foot

USA. Occupational Exposure Limits
(OSHA) - Table Z-3 Mineral Dusts
Remarks Based on samples counted by light-field techniques.
mppcf X 35.3 = million particles per cubic meter = particles per c.c
TWA 80.000000 mg/m³ / %SiO₂

USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
TWA 20.000000 Million particles per cubic foot

USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
TWA 6.000000 mg/m³

USA. NIOSH Recommended Exposure Limits
TWA 6.000000 mg/m³

USA. NIOSH Recommended Exposure Limits
TWA 20Million particles per cubic foot

8.2. Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full contact
Material: Nitrile rubber

Minimum layer thickness: 0.11 mm test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

No special environmental precautions required.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

- 9.1.1. Appearance Form: solid
- 9.1.2. Odor No data available
- 9.1.3. Odor Threshold No data available
- 9.1.4. pH 3.6 - 4.3 at 40 g/l
- 9.1.5. Melting point/freezing point Melting point/range: > 1,600 °C (> 2,912 °F)
- 9.1.6. Initial boiling point and boiling range 2,200 °C (3,992 °F) at 1,013 hPa (760 mmHg)
- 9.1.7. Flash point Not applicable
- 9.1.8. Evaporation rate No data available
- 9.1.9. Flammability (solid, gas) No data available
- 9.1.10. Upper/lower flammability or explosive limits No data available
- 9.1.11. Vapor pressure No data available
- 9.1.12. Vapor density No data available
- 9.1.13. Relative density 2.200 g/cm³
- 9.1.14. Water solubility insoluble
- 9.1.15. Partition coefficient: noctanol/water No data available
- 9.1.16. Auto-ignition temperature No data available
- 9.1.17. Decomposition No data available temperature
- 9.1.18. Viscosity No data available
- 9.1.19. Explosive properties No data available t) Oxidizing properties No data available

9.2. Other safety information

No data available

10. STABILITY AND REACTIVITY

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Exposure to moisture may affect product quality.

10.5. Incompatible materials

Strong acids(concentrated HF), Oxidizing agents, Ammonia, Oxygen difluoride, Chlorine trifluoride

10.6. Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

No data available

Inhalation: No data available

Dermal: No data available

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available Respiratory or skin sensitization No data available

Germ cell mutagenicity

Rat - Lungs, Body fluid assay

Rat - Unscheduled DNA synthesis

Carcinogenicity

Carcinogenicity - Rat - Inhalation

Tumorigenic: Carcinogenic by RTECS criteria. Lungs, Thorax, or Respiration: Tumors.

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (amorphous silica)

3 - Group 3: Not classifiable as to its carcinogenicity to humans (amorphous silica)

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present is at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: VV7310000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6. Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company

Contaminated packaging

Dispose of as unused products.

14. TRANSPORT INFORMATION DOT (US)

Not dangerous goods

IMDG IATA

Not dangerous goods

15. REGULATORY INFORMATION

15.1. SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

15.2. SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.

15.3. SARA 311/312 Hazards

Chronic Health Hazard

15.4. Massachusetts Right To Know Components

No components are subject to the Right to Know Act.

15.5. Pennsylvania Right To Know Components

Amorphous silica CAS-No. 112945-52-5

15.6. New Jersey Right To Know Components

Amorphous silica CAS-No. 112945-52-5

15.7. California Prop. 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION HMIS Rating

Health hazard:	0
Chronic Health Hazard:	*
Flammability:	0
Physical Hazard	0

16.1. NFPA Rating

Health hazard:	0
Fire Hazard:	0
Reactivity Hazard:	0

16.2. Further information

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