GENERAL INFORMATION

Information furnished by: SCHOTT Technical Glass Solutions GmbH
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Product Name: Borosilicate Glass SCHOTT Borofloat® 33
Product use: Use in manufacture of glass articles
Chemical Name: Inorganic Glass

COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Component</th>
<th>Percent</th>
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<tr>
<td>65 997-17-3</td>
<td>Glass, oxide, chemicals</td>
<td>100</td>
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Component information:
Glass is a solid material produced by combining various raw materials (e.g. oxides, carbonates, etc.), melting these components together and cooling to a non-crystalline solid having its own unique properties.

Processing of this article may produce dusts or fumes which are considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

PHYSICAL DATA

Boiling Point: not applicable
Vapor Pressure: not applicable
Vapor Density: not applicable
Solubility in Water: not applicable
Specific gravity: 2.2 – 2.3 g/cm³
Melting Range: 510 – 550°C
Physical State: solid with a density between 2.2 to 2.3 g/cm³
Appearance and odor: in plates with various thickness, no odor

FIRE AND EXPLOSION HAZARD DATA

Flash Point: not applicable
Auto Ignition Temperature: not applicable
Flammable Limits % Vol. in Air: not applicable
Extinguishing Media: non-combustible material
Special Fire Fighting Procedures: Use extinguishing media that is appropriate for the classification of surrounding fire. Inorganic glass is non-combustible.
Unusual Fire and Explosion Hazards: There is the possibility of flying glass fragments if hot glass comes in contact with water or carbon dioxide extinguishing media.
HEALTH HAZARD DATA

Inhalation Acute: Respiratory irritation. Chronic: Possible pneumoconiosis effects
Ingestion: Ingestion’s may cause vomiting, diarrhea, depressed circulation and in severe cases shock, coma, paralysis and cyanosis.

Skin: Glass dust may cause irritation.
Eye: May cause irritation.
First Aid: Inhalation: Remove to fresh air. Seek medical attention.
Ingestion: Seek medical attention.
Skin: Wash with soap and water. Seek medical attention if irritation permits.
Eye: Flush well with running water. Seek medical attention if irritation permits.

SPILL; LEAK AND DISPOSAL
Spill ore Leak Procedures: No special precautions.

SPECIAL PROTECTION INFORMATION
Engineering Controls:
Use local exhaust ventilation, hood or equipment enclosure to avoid dispersal of fibrous or other glass particulars into the workplace air.

Personal Protective Equipment:
Respiratory - if glass dust or particulars are above the OSHA permissible exposure limits use a NIOSH approved respirator for dust and fibers.
Eye protection – industrial safety glasses that meet ANSI Z87 standards.
Protective gloves – recommend gloves for protection from sharp edges.

SPECIAL PRECAUTIONS AND COMMENTS
Reactivity:
SCHOTT Borofloat®33 is a stable material. Glass is inert to many chemicals, but react to hot, strong alkaline solutions and with hydrofluoric and phosphoric acids. Hazardous decomposition or byproducts may emit metal oxide fumes when heated to high temperatures.

Comments:
Inorganic borosilicate glass is an amorphous, inorganic, usually transparent or translucent substance, consisting of a mixture of silicates or sometimes borate formed by fusion of silica and various types of oxides with a flux and a stabilizer into a mass that cools to a rigid condition without crystallization.

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