

Heritage Glass Material Safety Data Sheet

SECTION I: IDENTIFICATION

Trade Name: HG Aggregate, glass chips, or glass frit. Color: **Mirror**, 100% recycled
Manufacturer's Name: Heritage Glass Inc. Updated: September 2009
130 West 700 South Bldg. H 435.563.5585
Smithfield, UT 84335

SECTION II: HAZARDOUS INGREDIENTS

Hazardous components:

The glass may contain the following hazardous components in amounts less than and up to the maximum of the following percentages. The following is a list of chemical compounds used in the manufacture of mirror glass; changes in the chemical compounds occur during mirror formation.

<u>Components</u>	<u>CAS#</u>	<u>Max % on glass</u>	<u>ACGIH-TLV/OSHA PEL</u>	
Talc	14807-96-6	< 1%		
Iron Oxide	1332-37-2	< 1%		
Barium Sulphate		< 1%		
Zinc Oxide	1314-13-2	< 1%		
Tin Salts	(proprietary mixture)	< 1%	2mg/m ³	2mg/m ³
Silver Nitrate	7761-88-8	< 1%	0.01mg/m ³	0.01mg/m ³
Copper Sulphate	7758-99-8	< 1%	1mg/m ³	1mg/m ³

Additional information:

Because this glass may be ground, polished, fused, reheated and reformed, toxic substances in this glass may become bio-available. Because Heritage Glass has no control over uses and process, we are listing all toxic substances as if they are all 100% bio-available.

SECTION III: PHYSICAL DATA

Boiling Point: greater than 3000°F Specific Gravity: 2.56–2.58
Melting Point: 1300°F softens; 1800°F–2000°F melts Vapor Pressure (mm Hg): N/A
Vapor Density (air-1): N/A Evaporation Rate (butyl acetate=1): N/A
Solubility in Water: Negligible
Appearance and Odor: Glass aggregate in various shades of clear with silver coating with protective backing, sized from -40 mesh to 3 inch. No odor.

SECTION IV: FIRE AND EXPLOSION DATA

Flash point (method used): N/A Flammable limits: non-flammable
LEL: N/A UEL: N/A Extinguishing media: N/A
Special fire and explosion hazards: may emit toxic fume at sustained temperatures above 1300°F.

SECTION V: REACTIVITY DATA

Stability: stable

Conditions to avoid: N/A

Incompatibility (materials to avoid): hydrofluoric acid

Silica in the glass will dissolve in hydrofluoric acid and produce a corrosive gas-silicon tetrafluoride. Hydrofluoric acid may also produce highly toxic hydrogen selenide gas from selenium and some selenium compounds.

Hazardous decomposition or byproducts: N/A

Hazardous polymerization: will not occur

SECTION VI: HEALTH HAZARD DATA

Routes of entry Inhalation: Yes
 Skin: Yes
 Ingestion: Yes

Health Hazard Acute and Chronic

ACUTE

Skin contact: sharp edges and slivers of glass may cut or puncture skin

Ingestion: ground glass or glass particles may cause internal bleeding requiring medical attention

Inhalation:

Dust—glass dust may cause respiratory irritation. Silica in glass dust is not in a free silica state. Fume—when glass is reheated or melted hazardous fume may be given off. Can cause nausea, gastric pain and irritation to the upper respiratory tract.

CHRONIC

Inhalation and ingestion: repeated inhalation of irritating glass dust may cause chronic respiratory diseases. Repeated inhalation or ingestion of glass dust or fume containing small amounts of one or more of the following toxic components—fluoride—may cause or contribute to chronic diseases.

Carcinogenicity:

Component	NTP	IARC	OSHA
None			

Symptoms and signs of overexposure: Dust: inhalation of large amounts of dust or powdered glass will cause shortness of breath and reduced pulmonary function. No toxic ingredients should be present in amounts sufficient to produce acute symptoms.

Medical conditions aggravated by overexposure: respiratory and cardiovascular disease

Emergency first aid procedures:

Eyes: flush with running water; receive medical attention as necessary

Ingestion: receive medical attention as necessary

Inhalation: dust—remove to fresh air; receive medical attention as necessary

Cut: stop bleeding, clean wound and apply bandage; receive medical attention as necessary

As in all medical emergencies, report to your supervisor and receive follow-up medical attention for treatment, observation, and support as needed.

SECTION VII: SAFE HANDLING AND USE

Steps to be taken if material is released or spilled: sweep as necessary; use measures to avoid creating dust
Waste disposal methods: follow federal, state and local regulations for disposal of glass and mirror
Precautions in handling and storage: take precautions against bag breakage or spillage; avoid creating dust
Other precautions: Use adequate ventilation and dust collection as needed. When cutting or grinding glass in a recycled- water-cooled system small amounts of sodium may dissolve and become concentrated in the water as sodium hydroxide. When using a water-cooled or grinding system, wear rubber gloves to protect hands and wear safety splash goggles.

SECTION VIII: CONTROL MEASURES

Respiratory protection: use conventional particulate respiratory protection based on consideration of airborne concentrations and durations of exposure.
Ventilation: local exhaust—to meet PEL requirements; mechanical (general)— to meet PEL requirements
Protective gloves: recommended
Eye protection: safety glasses, face shield
Other protective clothing: as appropriate in light of specific application
Work hygienic practices: avoid creating dust. Change clothes and shoes, shower at end of work day.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. The information set forth herein is based on technical data that Heritage Glass believes to be reliable, but Heritage Glass extends no warranties, makes no representations, and assumes no responsibility as to the accuracy or suitability of this information for any purchaser's use or for any consequence of its use in various process.