

MATERIAL SAFETY DATA SHEET

1. Product Identification

Identification of substance: Post consumer container glass.
 Manufacturer: Recresco Ltd
 Application: Abrasive blasting

2. Composition/Information

Recresco products are manufactured from rejected/recycled glass bottles. No remanufacturing of the products is undertaken during the processing. Glass products are primarily manufactured from silica sand, sodium carbonate and limestone. The physical and chemical transformation from raw material to glass binds the main element oxides together in chemical matrix.

Chemical composition of glass used			
Material	Amber	Green	Flint
SiO ₂	71.4 – 73.0%	71.5 – 73.1%	71.6 – 74.3%
R ₂ O	12.5 – 15.1%	13.7 – 14.9%	13.0 – 14.7%
RO	7.6 – 11.3%	10.3 – 11.0%	10.2 – 11.6%
Al ₂ O ₃	1.3 – 2.4%	1.6 – 2.0%	1.5 – 2.3%
Fe ₂ O ₃	0.22 – 0.46%	0.12 – 0.20%	0.03 – 0.10%
TiO ₂	0.02%	0.02%	0.02%

3. Hazards

The glass aggregate or dust particles in this product are chemically inert and may be regarded as having no specific toxicological effect. In high concentration, glass particles may cause some mechanical damage.

Eye Physical irritant / foreign body, as are most processed minerals. Causes temporary irritation or inflammation

Skin Healthy skin is not susceptible to irritant effects from inert grit; hot conditions (and sweat) combined with rubbing can produce skin irritation.

Inhalation No reports of adverse effects in humans. No significant gross changes detected in laboratory animals> particles 10mm are relatively soluble. Larger particles are limited to entry into mouth, nose, throat and upper airways

Ingestion Simple physical irritant

Chronic There is no data in the literature on glass particles to indicate the occurrence of any adverse health effects from long term exposure to glass particles.

4. Precautions

For general handling, provide goggles, dust mask and leather or fabric gloves. Boots, sleeves and aprons may be used. For blasting, please refer to relevant legislative guides or standards in the local state or country. It is also recommended that all confined areas where dust particles may be airborne should be adequately ventilated.

5. First aid

Eye contact: Irrigate eyes with copious quantities of water with eyelids open; do not rub or scratch; obtain medical attention if soreness or redness persists.

Skin Wash skin under running water. Treat grazes or cuts with antiseptic and cover

Inhalation In the case of upper respiratory irritation, blow nose.

Ingestion: These products are sharp free. In the event of ingestion, it is recommended that water is consumed. Do not induce vomiting. Seek medical assistance.

6. Transportation storage and disposal

The carriage/transportation of crushed glass is not subject to hazardous substance conveyance regulations and therefore vehicle labelling is not required. Crushed glass products are inert but should be disposed of in accordance with local requirements.

7. Accidental release measures

Accidental discharge: All crushed glass products are inert therefore they do not present an environmental risk. Spills should be dealt with using a dust suppressant and brush or vacuum, do not disperse with compressed air. Wear goggles, dust mask and gloves.

8. Handling and storage

Handling: It is recommended that gloves be worn if persistently handling crushed glass products as they can be abrasive.

Storage: Powders should be kept dry and under cover. There are no special requirements.

9. Exposure controls/personal protection

Respiratory protection: Suitable mask if dust is present.

Hand protection: Gloves

Eye protection: Goggles may be required depending on the application.

10. Physical and chemical properties

Appearance: Individual or mixed coloured crushed glass products of mixed colours (green, amber, colourless, blue) ranging from sub-250µm powders, sand, grit, to small pebbles. Odourless inorganic solid, ground and graded.

Odour: None

pH: 7

Melting point: 890°C

Flammability: None

Auto flammability: None

Explosive properties: None

Oxidising properties: Not determined

Vapour pressure: Not applicable

Relative density: 1.52 to 1.6t/m³

11. Stability reactivity

Stability: Stable under normal conditions

Decomposition: Only occurs from constant compression, impact or abrasion of products

12. Ecological information

Mobility: None

Persistent degradability: Crushed glass products are expected to be resistant to all common detergents and chemical compositions and will not auto degrade.

Bio accumulation: Crushed glass products are not expected to bio accumulate.

13. Disposal

Product disposal: Crushed glass products themselves are inert and therefore safe to landfill.
 Packaging: Crushed glass products packaging has been made from recycled plastics; if cleaned it could be recycled. Recycling of plastics should be undertaken where possible. One tonne big bags and pallets can be safely reused or recycled.

14. Transportation information

Transport: None

15. Regulatory information

Transport: Product is not classified as dangerous to transport

16. Other information

Product use: See distributor specification sheets or contact Recresco Sales department.
 Product form: 25 or 1000kg bags of loose bulk loads.

Statement from British Glass COSHH Assessment:

There is no detectable crystalline silica present in the glass material. It is the only crystalline silica that is relevant to establishing the potential for causing silicosis (and in the ultimate, lung cancer). The whole point about the glassy state is that the regular atomic structure contained in crystals is lost; glass is not associated with that structure. The lack of a crystalline structure can be demonstrated by analytical methods such as x-ray diffraction. Carry out a chemical analysis will not help. While it is the convention to express the amount of silica in the glass as silica (SiO₂), this does not mean that it is present in the glass as an individual free oxide.

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