

ENSIO RESOURCES, INC.
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Safety Data Sheet

SECTION I. Product Identification

Trade Name as Labeled: PATRIOT - BLAST ERI Glass Abrasives

CAS Number: 65997-17-3

Common Name: Crushed Recycled Glass

Recommended Use: Abrasive Grit

Restrictions on Use: Collect and properly dispose of spent abrasives.

24-HR Emergency Telephone: Chemtrec 800-424-9300

SECTION II. Hazards Identification

GHS CLASSIFICATIONS

Health Hazard: Not Classified

Physical Hazard: Not Classified

Environmental: Not Classified

Signal Word: HNOC

Hazard Pictograms:



Hazard Not Otherwisely Classified (HNOC)

EMERGENCY OVERVIEW: *PATRIOT – BLAST* ERI Glass Abrasives are not flammable, combustible or explosive; and pose no known hazard in an unused condition. During use for abrasive blasting, dust may irritate the respiratory tract, skin and eyes; and may cause inflammation and pulmonary fibrosis. When used as an abrasive, use appropriate eye protection, wear suitable protective clothing, comply with OSHA Standard 29 CFR 1910 for respiratory protection.

SECTION III. Composition / Information on Ingredients

<u>Component</u>	<u>Typical Content (% wt)</u>	<u>CAS Number</u>
Silicon dioxide (SiO ₂)	75%	7631-86-9
Calcium Oxide (CaO)	14%	1305-78-8
Sodium Oxide (Na ₂ O)	7%	1313-59-3
Aluminum Oxide (Al ₂ O ₃)	2%	1344-28-1
Magnesium Oxide (MgO)	1%	1309-48-4
All other constituents are less than 1%		

Note: Crushed recycled glass is an amorphous silicate obtained by the fusion of numerous inorganic substances (predominantly silicon dioxide, calcium oxide and sodium oxide). The component minerals are not present as free oxides as they are fully combined in the glass. Composition is provided as information only but is not intended to suggest that these compounds are present as free compounds in the mixture. This product contains less than 1% Free or Crystalline silica.

SECTION IV. First Aid Measures

Eye Contact: Immediately flush with water for at least 15 minutes. If irritation or redness persists, see a physician.

Skin Contact: Wash with soap and water if irritation is felt.

SECTION IV. First Aid Measures, Continued

- Inhalation:** Immediately remove person to a fresh air source.
Apply artificial respiration if breathing has stopped.
- Ingestion:** Rinse mouth with water. If discomfort persists, see a physician.

SECTION V. Fire Fighting Measures

Product is nonflammable, non-explosive and stable under normal conditions of use, storage and transportation. Use fire-extinguishing media that is appropriate for surrounding materials. Move product containers from fire area if it can be done without risk. Cool containers by flooding with water until heat is dissipated.

SECTION VI. Accidental Release Measures

Spill Response Procedures: *PATRIOT - BLAST* ERI Glass Abrasives are classified as non-hazardous. Sweep up spilled material and dispose in a sanitary landfill or industrial disposal site. Avoid generating dust. Wet methods and vacuuming are preferred.

SECTION VII. Handling and Storage

- General:** Avoid inhalation of dust and contact with skin and eyes. Use only with adequate ventilation. Use work methods that minimize dust production. Keep workplace clean. Observe good industrial hygiene practices.
- Handling:** Follow Safety Data Sheet and label precautions.
- Storage:** Keep container tightly closed. Store away from incompatible materials.

SECTION VIII. Exposure Controls / Personal Protection (PPE)

<u>Component</u>	<u>OSHA PEL (mg/m³)</u>	<u>ACGIH TLV (mg/m³)</u>	<u>Ontario OEL (mg/m³)</u>	<u>Quebec OEL (mg/m³)</u>
Silica, Amorphous (7631-86-9)	<u>80 mg/m³</u> % SiO ₂	3 mg/m ³ R	10 mg/m ³ I 3 mg/m ³ R	6 mg/m ³
Aluminum Oxide (1344-28-1)	<u>15 mg/m³</u> <u>5 mg/m³ R</u>	1 mg/m ³ R	1 mg/m ³ R	10 mg/m ³
Calcium Oxide (1305-78-8)	<u>5 mg/m³</u>	2 mg/m ³	2 mg/m ³	2 mg/m ³
Magnesium Oxide (1309-48-4)	<u>15 mg/m³</u>	10 mg/m ³	10 mg/m ³ I	10 mg/m ³ (Fume)
Sodium Oxide (1313-59-3)	Not Established	Not Established	Not Established	Not Established

If used as a blasting abrasive, the following PPE are recommended:

Eye Protection: Wear safety glasses with side shields. Use tight fitting goggles if dust is generated.

Skin Protection: Use protective gloves. Wear suitable protective clothing.

Work Practices, Hygienic Practices: Practice good personal hygiene. Wash or shower after use. Launder contaminated clothing before reuse.

Ventilation and Engineering Controls: Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below recommended exposure limits.

Respiratory Protection (type): Selection and use of respiratory protective equipment should be in accordance with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

Comments: Proper and safe use of the material is solely the purchaser's responsibility. The manufacturer extends no warranties and makes no representations as to the suitability of the product for the purchaser's intended purpose or the consequences of purchaser's actions.

SECTION IX. Physical and Chemical Properties

Physical Form:	Solid (angular/granular)	Specific Gravity (H₂O = 1):	2.54 to 2.6
Solubility in Water:	Negligible	Boiling Point(F):	Not applicable
Appearance:	Transparent solid, glass	Evaporation Rate:	Not applicable
Odor:	None	Vapor Density/Pressure:	Not applicable

SECTION X. Reactivity Data

Stability: This product is stable and non-reactive under normal conditions of use, storage and transport.

Conditions to Avoid: None known.

Possibility of Hazardous Reactions: None.

Hazardous Decomposition Products: None known.

Incompatible Materials: Hydrofluoric acid.

SECTION XI. Toxicological Information

Inhalation: As with many dusty products, prolonged or repeated inhalation of very large amounts of dusts may cause Chronic Obstructive Pulmonary Disease (COPD) or Chronic Bronchitis

Ingestion: Not anticipated to cause any adverse effects upon minor ingestion. Not an anticipated route of workplace exposure.

Skin: May cause mechanical skin irritation.

Eyes: May cause mechanical eye irritation.

Symptoms related to the physical, chemical, and toxicological characteristics: None known.

Delayed and immediate effects and chronic effects from short or long-term exposure: Potential COPD or Chronic bronchitis as would be possible with excessive inhalation of any dusts.

Product Acute Toxicity Estimates

Acute Oral Toxicity – no data available

Acute Dermal Toxicity - no data available

Acute Inhalation Toxicity - no data available

Respiratory sensitization: Not anticipated to cause respiratory sensitization based on available information about the product.

Skin sensitization: Not anticipated to cause skin sensitization based on available information about the product.

Germ cell mutagenicity: Not anticipated to cause mutagenicity based on available information about the product.

Carcinogenicity

IARC: Crushed glass is not listed by IARC.

NTP: Crushed glass is not listed by the National Toxicology Program in their Annual Report.

OSHA: Crushed glass is not listed by NIOSH as a Potential Occupational Carcinogen.

Silicon dioxide (CAS 7631-86-9): IARC Group 3 -Not classifiable.

Aluminum oxide (CAS 1344-28-1): No designation listed.

Calcium oxide (CAS 1305-78-8): No designation listed.

Magnesium oxide (CAS 1309-48-4): No designation listed.

Sodium oxide (CAS 1313-59-3): No designation listed.

SECTION XII. Ecological Information

Eco-Toxicological Information: This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Bioaccumulation/Accumulation: This product is not bio-accumulating.

Distribution: Not available.

Aquatic Toxicity: None known.

Chemical Fate Information: Not available.

SECTION XIII. Disposal Considerations

Disposal Method: Dispose in accordance with all applicable regulations.

General Comments: TCLP testing of unused product indicates that it is not hazardous waste by characteristic.

SECTION XIV. Transport Information

DOT Shipping Name: Non-regulated Material.

DOT Hazard Class: Non-regulated Material.

General Comments: Unused product is not regulated as a hazardous material by DOT, and it is not regulated as dangerous goods by IATA, IMDG or TDG.

SECTION XV. Regulatory Information

OSHA: This SDS has been prepared to comply with the Hazard Communication Standard, 29 CFR 1910.1200.

TSCA and SARA: Not subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act and the Toxic Substance Control Act inventory list.

RCRA Status: Not regulated.

OSHA Hazard Comm. Rule: Regulated.

Clean Water Act: Not covered by any water quality criteria under Section 304.

Carcinogen: Refer to Section XI.

CANADA

WHMIS 2015 Classification: This Safety Data Sheet (SDS) has been prepared to comply with this requirement.

WHMIS Hazard Symbol And Classification: Not Controlled.

WHMIS (Workplace Hazardous Materials Information System): Not controlled.

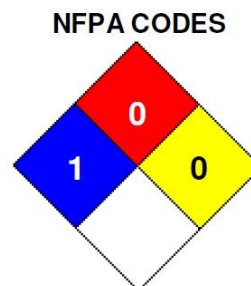
WHMIS Class: This product has been classified in accordance with the hazard criteria of the CPR and the Safety Data Sheet contains all of the information required by the CPR.

Domestic Substance List (Inventory): Listed on Inventory.

SECTION XVI. Other Information

Prepared By: Mark C. Mummert, Ph.D., PE, CIH (#8415 CP)

HMIS RATING		
HEALTH	1	1
FLAMMABILITY	0	0
PHYSICAL HAZARD	0	0
PERSONAL PROTECTION	A	



DISCLAIMER: All data or information regarding the product contained in this Safety Data Sheet (SDS) is offered by the manufacturer in good faith as accurate, but is furnished without guaranty. While the information contained in the SDS is based upon research and analysis, the manufacturer makes no representation as to the accuracy of the information.

The conditions of the use of this product, and the suitability of the product for your particular application, are beyond the

control of Ensio Resources, Inc. All risks of the use of the product are therefore assumed by you, the user. It is also your responsibility to pass on to your employees and /or customers the information contained in this SDS, and give them appropriate warnings and safe handling instructions as necessary to make the product safe for its intended uses.