

# ENSIO RESOURCES, INC.

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## Safety Data Sheet

Date Prepared: January 2017

### SECTION I. Product Identification

**Trade Name as Labeled:** ERI Recycled Glass Abrasives  
**CAS Number:** 65997-17-3  
**Common Name:** Crushed Recycled Glass  
**24-HR Emergency Telephone:** Chemtrec 800-424-9300

### SECTION II. Hazards Identification

**Classification of the chemical in accordance with paragraph (d) of §1910.1200 and the Hazardous Products Regulations (2015):**

**Physical hazards:** None

**Health hazards:** None

**Environmental hazards:** Not determined

**GHS Signal word:** Not applicable

**GHS Hazard statement(s):** Not applicable

**GHS Hazard symbol(s):** Not applicable

**GHS Precautionary statement(s):** Not applicable

**Health and Physical Hazard(s) not otherwise Classified (HNOC):** None known.

**Percentage of ingredient(s) of unknown acute toxicity:** Not applicable

### SECTION III. Composition / Information on Ingredients

**Mixture** – 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.

Chemical name:	Concentration (weight %):
<i>Glass</i>	100%
Silicon dioxide (SiO <sub>2</sub> )	74.07
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	1.97
Iron oxide ( Fe <sub>2</sub> O <sub>3</sub> )	0.44
Total calcium oxide ( CaO)	13.56
Magnesium oxide (MgO)	1.26
Sulfur trioxide ( SO <sub>3</sub> )	0.20
Potassium oxide ( K <sub>2</sub> O)	0.62
Sodium oxide ( Na <sub>2</sub> O )	7.19
Chlorine ( Cl)	0.05
Titanium dioxide (TiO <sub>2</sub> )	0.14

Phosphorus pentoxide (P <sub>2</sub> O <sub>5</sub> )	0.02
Strontium oxide ( SrO )	0.00
Manganese trioxide ( Mn <sub>2</sub> O <sub>3</sub> )	0.03
Chromium trioxide ( Cr <sub>2</sub> O <sub>3</sub> )	0.03
Zinc oxide (ZnO)	0.00

## SECTION IV. First Aid Measures

### Description of necessary measures:

**Inhalation:** Remove person to fresh air and keep comfortable for breathing. Call a poison centre or a doctor if you feel unwell.

**Skin contact:** Wash skin with plenty of soap and water.

**Eye contact:** May cause mechanical irritation; therefore, in case of contact, immediately flush eyes with plenty of water until for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention. Get medical attention if symptoms persist.

**Ingestion:** Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Consult a doctor.

**Most important symptoms/effects, acute and delayed:** None known.

**Indication of immediate medical attention and special treatment needed:** Treat symptomatically.

## SECTION V. Fire Fighting Measures

**Suitable extinguishing media:** Product is not flammable. Use appropriate extinguishing media for surrounding materials.

**Unsuitable extinguishing media:** None known

**Specific hazards arising from the chemical:** None anticipated.

**Special protective equipment and precautions for fire-fighters:** Wear appropriate respiratory protection to avoid breathing any dusts of this material that may become airborne in an emergency situation.

## SECTION VI. Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures:** Avoid inhalation of spilled product (i.e. dusts). Avoid clean-up methods which create airborne dust. If cleaning up a large spill and inhalation is possible, wear gloves, goggles and a dust mask.

**Methods and material for containment and cleaning up:** Sweep up spilled material, and try to avoid creating a airborne dust.

## SECTION VII. Handling and Storage

**Precautions for safe handling:** Wear appropriate required personal protective equipment, as per all state and federal regulations. Avoid breathing any dusts.

**Conditions for safe storage, including any incompatibles:** Keep container tightly closed.

## SECTION VIII. Exposure Controls / Personal Protection

### Occupational exposure limits: US OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

#### Permissible Exposure Limits

Substance	PEL-TWA (8 hour)	PEL-STEL (15 min)	REMARKS
Particulates not otherwise classified	15 mg/m <sup>3</sup>	Not applicable	Total dust

#### US ACGIH Threshold Limit Values

Substance	TLV-TWA	TLV-STEL	REMARKS
Particulates not otherwise classified	10 mg/m <sup>3</sup> TWA	Not applicable	Inhalable particles

**Appropriate engineering controls:** Good general ventilation should be employed. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

#### Individual protection measures, such as personal protective equipment:

**Eye/face protection:** Avoid all contact with eyes. Wear protective safety glasses.

**Skin and Hand protection:** Avoid skin contact. Wear suitable protective clothing and protective gloves

**Respiratory protection:** If engineering controls do not keep airborne concentrations below established exposure limits or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Normally respiratory protection is not needed but in case of insufficient ventilation or a spill resulting in airborne dust, then a dust mask would be necessary. Contact a health and safety professional or personal protective equipment manufacturer for specific information.

**Other:** Minimize exposure. Ensure protective equipment is available in the workplace and follow all regulations. Follow all recommendations of your health and safety committee.

**Thermal hazards:** Not applicable based on known uses

## SECTION IX. Physical and Chemical Properties

**Appearance:** Solid, white powder.

**Odor/odour:** None

**Odor/odour threshold:** Not applicable

**PH:** Not applicable

**Melting point/freezing point:** 1300°C (Melting point)

**Initial Boiling Point and**

**boiling range:** Not available

**Flash point:** Not applicable

**Evaporation rate:** Not applicable

**Flammability (solid, gas):** Not available – not flammable based on experience

**Upper/lower flammability or explosive limits**

**Flammability limit – lower (%):** Not available.

**Flammability limit – upper (%):** Not available.

**Explosive limit – lower (%):** Not available.

**Explosive limit – upper (%):** Not available.

**Vapor/Vapour pressure:** Not applicable

**Vapor/Vapour density (air=1):** Not applicable

**Relative density (water = 1):** Not available (Density: 2.54-2.6 g/cm<sup>3</sup>)

**Solubility(ies):** Insoluble in water

**Partition coefficient**

**(n-octanol/water):** Not available

**Auto-ignition temperature:** Not applicable

**Decomposition temperature:** Not available

**Viscosity:** Not applicable

## SECTION X. Reactivity Data

**Reactivity:** Not chemically reactive.

**Chemical stability:** Stable under normal anticipated conditions of use.

**Possibility of hazardous reactions:** Hazardous reactions not anticipated.

**Conditions to avoid:** None known

**Incompatible materials:** Hydrofluoric acid

**Hazardous decomposition products:** Not available

## SECTION XI. Toxicological Information

**Information on likely routes of exposure:**

**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.

**Acute toxicity estimates:**

**Product Acute Toxicity Estimates:**

Acute Oral Toxicity – no data available

Acute Dermal Toxicity - no data available

Acute Inhalation Toxicity - no data available

**Skin corrosion/irritation:** May cause mechanical skin irritation.

**Serious eye damage/eye irritation:** May cause mechanical eye irritation.

**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:** Some of the oxide components of this product can cause cancer, but since they are not free oxides and are instead bound up in the glass matrix. Therefore, based on information about amorphous glasses available in the literature, this product has not been classified as a carcinogen.

**Reproductive toxicity:** Not anticipated to cause reproductive toxicity based on available information about the product.

**Specific target organ toxicity-Single exposure:** No target organ effects are known.

**Specific target organ toxicity-Repeat exposure (STOT-RE):** At extremely high repeated and prolonged doses, inhalation of this product may cause COPD or Chronic Bronchitis, but based on the very high levels needed to cause this effect, this product has not been classified under this category.

**Aspiration hazard:** Not applicable.

**Further information:** No data available

## SECTION XII. Ecological Information

**Ecotoxicity:**

**Product data:** Not determined

**Persistence and Degradability:** Not determined

**Bioaccumulative Potential:** Not determined.

**Mobility in Soil:** Not determined.

**Other adverse effects:** None anticipated.

## 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

**USA:**

**Classification according to the US HCS – Hazcom 2012:** Not hazardous

This SDS complies with the OSHA, 29 CFR 1910.1200.

**STATE REGULATIONS:**

Not determined.

**Canada:**

**Classification according to the Canadian Hazardous Products Regulations (WHMIS 2015):**

Not hazardous

This SDS complies with the HPR (WHMIS 2015) requirements.

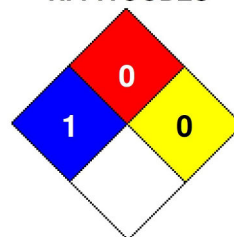
## SECTION XVI. Other Information

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**HMIS RATING**

<b>HEALTH</b>	□	1
<b>FLAMMABILITY</b>	□	0
<b>PHYSICAL HAZARD</b>	□	0
<b>PERSONAL PROTECTION</b>	□	A

**NFPA CODES**



**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

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