

Material Safety Data Sheet

Conforms to ISO 11014-1 and the South African Occupational Health and Safety Act (Act 85 of 1993)

MINERAL SLAG

COMPANY DETAILS

Name: Blastrite (Pty) Ltd.	Emergency Tel: 08600 BLAST
Address: P O Box 5515 Cape Town, 8000 South Africa	Tel Number: +27 (0)21 417 1700 Fax Number: +27 (0)21 425 2970
e-mail: sales@blastrite.co.za	
Website: http://www.blastrite.com	

SECTION 1 –PRODUCT AND COMPANY IDENTIFICATION

Trade name: Mineral Slag	CAS Number: Not applicable
Chemical Family: Not applicable	NOISH Number: Not applicable
Chemical Name: Not applicable	Hazchem Code: Not applicable
Synonyms: Blasting Grit	UN Number: Not applicable

SECTION 2 – COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Name	<u>CAS No.</u>	<u>Percent</u>	<u>Hazardous</u> ^{1,2}
Composition Measured as Oxides:			
Silica, SiO ₂ (total)	7631-86-9	42	Yes, only as crystalline form
Silica, crystalline	14808-60-7	None	
Ferric Oxide, Fe ₂ O ₃	1309-37-1	31	
Titanium Oxide, TiO ₂	13463-67-7	0.4	
Alumina, Al ₂ O ₃	1344-28-1	5	
Calcium Oxide, CaO	1305-78-8	6	
Magnesium Oxide, MgO	1309-48-4	15	
Potassium Oxide, K ₂ O	Not Available	0.2	
Sodium Oxide, Na ₂ O	12401-86-4	0.4	

1. The material consists of glass-like particles, and does not contain the individual oxides.
2. The slag contains a variety of trace heavy metals but they are not available to the environment, except in the presence of strong acids



SECTION 3 – HAZARDS IDENTIFICATION

Main hazard:	May cause irritation to skin and eyes
Flammability:	Not Flammable
Chemical hazard:	None
Biological hazard:	Not known.
Reproduction hazard:	Not known.
Eye Effects:	May cause irritation
Health Effects – skin	May cause irritation particularly in very sensitive individuals
Health Effects – ingestion	May release some heavy metals in stomach acid.
Health Effects – inhalation	Inhalation of dust may cause coughing and sneezing. This product may aggravate respiratory disorders.
Carcinogenicity	Not known.
Mutagenicity	Not known.
Neurotoxicity	Not known.

SECTION 4 – FIRST AID MEASURES

Product in Eye:	Wash thoroughly with running water. Get medical advice, if irritation develops.
Product on Skin:	Flush skin with plenty of water. Get medical advice, if irritation develops.
Product Ingested:	DO NOT INDUCE VOMITING! Give large quantities of water or milk, if available. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Product Inhaled:	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.

SECTION 5 – FIRE FIGHTING MEASURES

Extinguishing Media:	Not a fire hazard - use any means suitable to extinguish a surrounding fire.
Special Hazards:	None.
Protective Clothing:	In the event of any fire, wear full protective clothing and an approved self-contained breathing apparatus.



SECTION 6 – ACCIDENTAL RELEASE MEASURES

- Personal Precautions: Ventilate area of spill. Keep unnecessary and unprotected persons away from the area of the spill. Wear protective clothing as detailed in section 8.
- Environmental Precautions: As far as possible prevent the material entering a watercourse or storm water channel.
- Small and Large Spills: Pick up and place in suitable container, e.g. skip or drum, for reclamation or disposal, using a method that does not generate dust. Light residues can be washed with copious quantities of water, particularly off vegetation in order to minimise damage. The water should preferably be discharge to sewer, but if not available, small amounts can be discharge to watercourse.

SECTION 7 – HANDLING AND STORAGE

- Handling/Storage Keep in waterproof packaging and protect from damage. Keep in a cool, dry, ventilated area away from heat, moisture, and incompatible chemicals
- Suitable Material Bulk bags or any other container that will limit contact with moisture

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

- Occupational Exposure Limits: Personal exposure should be kept below both 10 mg/m³ 8-hour time-weighted average total inhalable dust and 5 mg/m³ time-weighted average respirable dust.
- Engineering Control Measures: Use exhaust ventilation to reduce dust levels below exposure limits in workplaces with poor ventilation and dusty conditions.
- Personal Protection – Respiratory: If exposure limit exceeded, a full-face piece respirator must be worn.
- Personal protection – Hand: See below – skin.
- Personal protection – Eye: Use chemical safety goggles and/or full-face shield, where dusting is possible. Maintain eye wash fountain and quick drench facilities in work area.
- Personal Protection – Skin: Impervious clothing should be worn, including boots, gloves, lab coat, apron, or overalls, as appropriate to avoid skin contact.



SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Black particles of glassy appearance
Odour:	None
pH:	10g made up to 100 mls with distilled water and stirred gives a pH between 7 and 8
Boiling Point:	Not Known
Melting Point:	± 1280 °C
Flash Point:	Non-combustible
Flammability:	Not flammable
Autoflammability:	Not applicable
Explosive Properties:	None
Oxidising Properties:	None
Vapour Pressure:	Not applicable
Density:	3.2
Solubility in Water:	Insoluble
Solubility Solvents:	Not applicable
Solubility Coefficient:	Not applicable

SECTION 10 – STABILITY AND REACTIVITY

Stability:	Stable
Conditions to Avoid:	Incompatible Chemicals,
Incompatible Chemicals:	Strong Inorganic and Organic Acids may release heavy metals that are present in the slag into the environment.
Hazardous Decomposition Products:	None



SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity: No data available

Skin and Eye Contact: No data available

Carcinogenicity: Not expected to be carcinogenic - crystalline silica not present.

Mutagenicity: No data available

Reproductive Hazards: No data available

SECTION 12 – ECOLOGICAL INFORMATION

Aquatic Toxicity - Fish: No information reported.

Aquatic Toxicity – Daphnia: No information reported.

Aquatic Toxicity – Algae: No information reported.

Biodegradability: Not biodegradable

Bioaccumulation: No information reported.

Mobility: Classified as non-hazardous, when subjected to the Department of Water Affairs and Forestry's Acid Rain Leaching Procedure, according to the Minimum Requirements.

Environmental Fate – Air: Dust may be a nuisance factor

Environmental Fate – Soil: Very low leachability in acid soils.

Environmental Fate – Water: No hazardous species leach into water and, therefore, the product is not expected to be hazardous to aquatic organisms

SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal Methods: The product is classified as non-hazardous according to the Department of Water Affairs and Forestry's Minimum Requirements and, therefore, significant amounts may, with permission of the Department, be disposed to a permitted GB⁺ or possibly GB⁻ general waste landfill.

If contaminated with other materials, in most cases treatment with 3% lime has been shown to minimise the hazard and allow disposal to a permitted landfill, i.e. HH, Hh, GLB⁺, or GMB⁺. However, the waste should be evaluated according to the procedures required by the latest edition of the Department of Water Affairs and Forestry's Minimum Requirements for the Handling, Classification, and Disposal of Hazardous Waste and disposed to an appropriate landfill.

Disposal of Packaging: Empty packaging may be disposed to a permitted general waste landfill.



UN Number: Not regulated

IMDG – Class: Not regulated

SABS 0228: Not regulated

Tremcard Number:

SECTION 14 – TRANSPORT INFORMATION

No special precautions necessary. It is recommended that bags be kept closed and dry bulk loads covered to prevent dust generation.

SECTION 15 – REGULATORY INFORMATION

UN Number: NA

Substance Identity Number: NA

IMDG – Class: NA

IMDG Packaging Group: Solid non-corrosive

IMDG – Marine Pollutant: Dangerous only when transported by air or in bulk by sea.

Indication of Danger: Irritant

Risk Phrases: Harmful if swallowed

Safety Phrases: Keep out of reach of children
Avoid contact with skin and eyes

SECTION 16 – OTHER INFORMATION

Other Special Considerations: None identified

Date of Issue: 9/11/2006

Date of Previous Issue: No previous validation

Notice to Reader:

The information and recommendations presented in this data sheet are to the best of our knowledge and belief accurate and reliable, but do not constitute a warranty. None of our representatives or agents are authorised to give any guarantee or warranty or make any representation in addition or contrary to the above, and we do not accept liability for claims of any kind for any loss, including, without limitation, consequential loss, injury or damage arising from the use of the information or recommendations, or of the products, which are the subject matter hereof. The products are sold subject to our standard conditions of sale and tender, copies of which are available on request.