Conforms to SANS ISO 11014: 2010 and ISO 11014: 2009

BLASTRITE
SURFACE PREPARATION INNOVATION

SAFETY DATA SHEET

Blastrite® Platinum Grit

Section 1. Identification

GHS product identifier : Blastrite® Platinum Grit
Other means of Identification : None.
Product type : Solid.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Abrasive sandblasting applications.

Supplier's details:
Blastrite (Pty) Ltd
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Cape Town, 8000,
South Africa
email: sales@blastrite.co.za
Website: www.blastrite.com

Emergency phone:
08600 BLAST
Tel: +27 (0)21 417 1700
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Section 2. Hazards identification

Classification of the substance or mixture : Does not classify as a toxic hazard in terms of SANS 10234, GHS

SANS 10234: 2007 (GHS) label elements
Signal word : No signal word.
Hazard statements : No known significant effects or critical hazards.
Precautionary statements
Prevention : Not applicable.
Response : Not applicable.
Storage : Not applicable.
Disposal : Not applicable.

Other hazards which do not result in classification : Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : None.

CAS number/other identifiers
CAS number : Not applicable.

Section 3. Composition/information on ingredients

EC number : Mixture.

Product code : No data available.

Major Ingredients as oxides	%	CAS number
silica, crystalline - quartz	Not detectable	14808-60-7
silica, amorphous	40 - 50	7631-86-9
iron(iii)oxide	15 - 35	1309-37-1
magnesium oxide	15 - 25	1309-48-4
calcium oxide	5 - 10	1305-78-8
aluminium oxide	5 - 10	1344-28-1
chromium (III) oxide	1 - 5	1308-38-9

Trace elements (<1%) include potassium oxides, sodium oxides, titanium oxides, manganese oxides and phosphorus oxides. Trace elements at concentrations <0.1% can include copper oxide, nickel oxide, titanium oxide and vanadium oxide.

Electric arc furnace slags mainly consist of compounds containing complex minerals such as dicalciumsilicate (Ca_2SiO_4), dicalciumferrite ($Ca_2Fe_2O_5$) and wuestite ($Fe_{1-x-y}Mg_xMn_yO_z$). Some of the constituents may also occur as separate compounds such as $CaCo_3$, CaS, Fe, Fe_2O_3, $CaSO_4*2H_2O$.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops.

Inhalation : No effect when product is in its virgin state.

If used in a process which generates dust, remove victim to fresh air and keep at rest in a position comfortable for breathing. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Skin contact : Flush contaminated skin with plenty of water. Get medical attention if irritation develops.

Ingestion : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately.

Most important symptoms/effects, acute and delayed: Potential acute health effects

Eye contact : No significant irritation expected other than possible mechanical irritation.

Inhalation : No effect when product is in its virgin state.

If used in a process which generates dust, no significant irritation expected other than possible mechanical irritation.

Skin contact : None identified.

Ingestion : None identified.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include pain, watering and redness

Section 4. First aid measures

Inhalation : No effect when the product is in its virgin state.

If used in a process which generates dust, exposure can cause coughing, chest pains and difficulty in breathing.

Skin contact : No specific data.

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No special measures required.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Non-flammable substance.

Unsuitable extinguishing media : Not applicable.

Specific hazards arising from the chemical : Not applicable.

Hazardous thermal decomposition products : Not applicable.

Special protective actions for fire-fighters : No special measures are required.

Special protective equipment for fire-fighters : No special protection is required.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency Personnel : No special measures are typically indicated.

For emergency responders : No special measures are typically indicated.

Environmental precautions : No special measures are required.

Methods and materials for containment and cleaning up

Small spill : Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

Large spill : Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling : **If used in a process which generates dust:**
Use appropriate personal protective equipment (see Section 8). If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a dry, well-ventilated area, away from incompatible materials (see section 10) and food and drink.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
silica, amorphous	**Occupational Health and Safety Act, 1993 (South Africa)** TWA: OEL:RL 6 mg/m³ (total inhalable dust) TWA: OEL:RL 3 mg/m³ (respirable fraction)
calcium oxide	**ACGIH TLV (United States, 2/2010).** TWA: 2 mg/m³ 8 hour(s). **Occupational Health and Safety Act, 1993 (South Africa)** TWA: OEL:RL 2 mg/m³
Chromium and its compounds as Cr (III) compounds	**ACGIH TLV (United States, 2/2010).** TWA: 0.5 mg/m³, (measured as Cr) 8 hour(s). Form: Inorganic **Occupational Health and Safety Act, 1993 (South Africa)** TWA: OEL:RL 0.5 mg/m³
iron(iii)oxide	**ACGIH (United States).** TWA: 5 mg/m³ **ACGIH TLV (United States, 2/2010).** TWA: 5 mg/m³ 8 hour(s). Form: Respirable fraction
aluminium oxides	**Occupational Health and Safety Act, 1993 (South Africa)** TWA: OEL:RL 10 mg/m³ (total inhalable dust) TWA: OEL:RL 5 mg/m³ (respirable fraction)
magnesium oxide	**ACGIH TLV (United States, 2/2010).** TWA: 10 mg/m³ 8 hour(s). Form: Inhalable fraction **ACGIH (United States).** TWA: 10 mg/m³ **Occupational Health and Safety Act, 1993 (South Africa)** TWA: OEL:RL 5 mg/m³ (total inhalable dust) TWA: OEL:RL 10 mg/m³ (respirable fraction)

Recommended monitoring procedures : Personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Section 8. Exposure controls/personal protection

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to dusts.

Hand protection : Wear gloves if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : **If used in a process which generates dust:**
Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Physical state : Solid. [Crystalline granules.]
Colour : Black.
Odour : Odourless.
Odour threshold : No data available.
pH (1% slurry) : 6.5 to 7.5
Melting point : 1280 °C (2336°F)
Boiling point : No data available.
Flash point : Product does not sustain combustion.
Evaporation rate : No data available.
Flammability (solid, gas) : Non-flammable.
Lower and upper explosive (flammable) limits : Not applicable.
Vapour pressure : No data available.
Vapour density : No data available.
Relative density : 3.0
Solubility : Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water : Not applicable.
Auto-ignition temperature : Not applicable.
Decomposition temperature : No data available.
Viscosity : Not applicable.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Incompatible with some strong acids.

Incompatible materials : Strong inorganic and organic acids may release heavy metals into the environment.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
silicon dioxide	LD50 Oral	Rat	3160 mg/kg	-

Information on the likely routes of exposure : Inhalation of dust.

Carcinogenicity : None known. Not classified as a carcinogen in term of SANS 10234, the GHS

Potential acute health effects

Eye contact : No significant irritation expected other than possible mechanical irritation.

Inhalation : No effect when product is in its virgin state.

If used in a process which generates dust, no significant irritation expected other than possible mechanical irritation.

Skin contact : None identified.

Ingestion : None identified.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : No effect when the product is in its virgin state.

If used in a process which generates dust, exposure can cause coughing, chest pains and difficulty in breathing.

Skin contact : No specific data.

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : No specific data

Potential delayed effects : No specific data

Long term exposure

Potential immediate effects : No specific data

Potential delayed effects : No specific data

Section 11. Toxicological information

Potential chronic health effects

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	3235.2 mg/kg

Section 12. Ecological information

Toxicity

Not expected to be toxic to aquatic species

Persistence and degradability

No specific data.

Bioaccumulative potential

No specific data.

Mobility in soil

Soil/water partition coefficient (KOC) : No specific data.

Mobility : Very low mobility of hazardous heavy metal content in soil and water is expected.

Other adverse effects

No know significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

Not classified as hazardous in terms of SANS 10234, GHS and classifies as a Type 3 waste, i.e. a low environmental risk, for disposal to landfill in terms of the DoE's Norms and Standards for the Assessment of Waste for Landfill Disposal (2013).

Dispose to a landfill licenced or permitted in terms of the DoE's National Norms and Standards for Disposal of Waste to Landfill (2013). Waste can be disposed of in a Class C Landfill or, if not available, a Class B (GLB+) landfill must be used.

If the grit has been used, the resulting waste must be classified in terms of the DoE's Norms and Standards for the Assessment of Waste for Landfill Disposal (2013).

Section 14. Transport information

	SANS 10228:2012	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

Section 15. Regulatory information

Safety, health and environmental regulations specific for the product : No known specific national and/or regional regulations applicable to this product (including its ingredients).

Section 16. Other information

History

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Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
UN = United Nations

References : Toxnet
: Ecotox

Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.