Products and Services include:
Aggregates • Grit • Mineral Separation
Tel 013 699 0314/5 Fax 013 699 9425 34 Van Eck Street Ferrobank Witbank 1035 Private Bag X7260 Suite 209 Witbank 1035

AFRIGRIT
THE LINK to your BUSINESS PROCESS
Reg No: 2004/016729/07 VAT No: 4030237210

MATERIAL SAFETY DATA SHEET

All information in this MSDS is given in good faith and is accurate according to test results by accredited authorities. This MSDS is subject to revision when additional information comes to light.

1 PRODUCT AND COMPANY IDENTIFICATION

Supplier: Afrigrit
Postal: Private Bag X7260
Suite 209
Witbank

Address: 34 Van Eck Street
Ferrobank
Witbank

Telephone: 013 699 0314
Fax: 013 699 9425
e-mail: sales@afrigrit.co.za

Emergency telephone: 082 8949 097

Trade Name: Mineral slag based grit.
Chemical Family: Ferrochrome

2 COMPOSITION AND INGREDIENT INFORMATION

Hazardous components: Fine ferrochrome slag.
Common chemical name or generic name: Ferrochromium
Hazchem Code: Not applicable
UN / URG Number: Not applicable

CHEMICAL COMPOSITION

Calcium Oxide	2%	Titanium Dioxide	1%
Magnesium Oxide	20%	Iron Oxide	8%
Aluminium Oxide	26%	Chrome 3 oxide	12%
Silicon Dioxide	32%		

This is not free Silica

3 HAZARDS IDENTIFICATION

Specific Hazards:	None.
Flammability:	None.
Chemical Hazard:	None.
Biological hazard:	None.
Reproductive Hazard	None.

Health effects:	
Eyes:	Same as any other foreign object or dust.
Skin:	Same as any other foreign object or dust.
Ingestion:	No known hazards.
Inhalation:	Same as for nuisance dust.
Carcinogenicity:	Not applicable
Mutagenicity:	No known hazards.

4 FIRST AID MEASURES

Product in eye: Wash with clean water until dust or particle is removed. If object could not be removed by this method seek medical attention.

Product on skin: Dust off or wash with water.

Product ingested: No need to administer any remedy although water will help rinse stomach.

Product inhaled: If person is overcome by dust cloud, introduction of clean fresh air is advised.

5 FIRE FIGHTING MEASURES

Extinguishing media: The substance is not flammable and inert to all fire fighting media.

Special Hazards: Not advisable for areas with a higher temperature than 1500 ºc.

Protective clothing: Only necessary in the blasting application.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions: None

Environmental precautions: Leaching may occur when in contact with organic compositions over a long period. Mix with a lime solution.

Suggested method of cleanup: Remove from organic material as soon as possible. Gather spilled material with brooms, spades, scoops etc.

7 HANDLING AND STORAGE

Handling:

No precautions needed, can be handled safely when loose or bagged.

Storage Precautions:

There is no unsafe storage for chrome based slag when suitable storage is being provided. (e.g. dry, undercover storage.) However, keep in mind that contact with organic material and acid rain may cause leaching over a period of time.

8 EXPOSURE CONTROL AND PERSONAL PROTECTION

Occupational Exposure Limits (OEL): Total in-halable dust 0.5mg/m³
Engineering control measures: None

Personal protection during working application:

a	**Respiratory:**	Suitable dust masks of same nature as for nuisance dust.
b	**Hand:**	Leather or rubber gloves.
c	**Eye:**	Safety glasses or shield.
d	**Skin:**	Overall or other suitable clothing covering the whole body.
e	**Feet:**	Safety shoes or boots.
f	**Other protection:**	The end user for sandblasting operations must have a written Safe Working Procedure according to this MSDS.
g	**Risk assessment:**	The end user for sandblasting operations must have a risk assessment done by a competent person before commencing with the blasting operation.

9 PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:	Dark Grey in colour, particle sizes ranging between 0.5mm-2.8mm.
Odour:	Slight dusty odour.
pH:	7.9
Boiling Point:	N/A
Melting Point:	1600 - 1700 ºC
Flash Point:	N/A
Flammability:	N/A
Spontaneous combustion:	N/A
Explosive properties:	Same as for any dust cloud mixed at the critical mixture with oxygen in closed confinement.
Oxidizing properties:	N/A
Vapour pressure:	N/A
Density:	3470Kg/m³
Solubility -water:	N/A
Solubility -coefficient:	N/A
Neurotoxicity:	None
Conductivity:	<100 µS/cm

Tested on 8 July 2003 by Secmet (Metallurgical and Corrosion Consultants) as follows:

Conductivity:	68	µS/cm	
Sulfate:	4.9	(mg/L)	
Nitrate:	0.3	(mg/L)	**All within the OEL**
Chloride:	19	(mg/L)	
Silica:	0.43	(mg/L)	

10 STABILITY AND REACTIVITY

Conditions to avoid:

a Storage in contact with organic material over a long period of time.
b Highly acidic conditions.
c Dumping where leaching may occur.
f Protect from acid rain with suitable cover, e.g.. a tarpaulin.

Incompatible materials:

a Inorganic material.
b Acids.

Hazardous decomposition products: As listed above.

11 TOXICOLOGICAL INFORMATION

Acute toxicity:	Dust may cause irritation to nose, throat and lungs.
Skin and eye contact:	Redness and soreness of the skin and tearing of eye tissue.
Chronic toxicity:	Ulceration of the Central Nasal Septum of the nose, chronic dermatitis, over a prolonged period.
Carcinogenicity:	Level of Cr IV is non-detectable.
Mutagenicity	N/A.
Reproductive hazards:	None known.

12 ECOLOGICAL INFORMATION

Aquatic toxicity:	(fish:)	None.
Aquatic toxicity	(daphnia:)	None known.
Aquatic toxicity	(algae:)	None known.
Biodegradability:		Slow.
Bio-accumulation:		High.
Mobility:		None
German wgk:		

13 DISPOSAL CONSIDERATIONS

Disposal methods:

a Bag and store used grit separate from unused grit to prevent contamination.
b Store under cover or under a tarpaulin.
c Dispose of at suitable site. (Spent abrasives may accumulate hazardous substances from the blasted surface, re-use not recommended due to possible conductivity risk.)
d When disposing of spent grit, consideration must be paid to the substance blast cleaned as it may contain hazardous material.
e Do not dispose of with organic material and if unavoidable a lime solution should be added.

Disposal of packaging:

a Can be recycled or returned to manufacturer for re-use.

14 TRANSPORT INFORMATION

International regulations:

Ferrochromium based grit used as a reference material may be shipped by road, rail or air freight. It is transportable in 30Kg bags, 1.5 ton bulk bags or in containers. No UN / ERG number required (see Chapter 8 of National Road Traffic Act).

15 REGULATORY INFORMATION

National Legislation

Elements contained in this product has been listed in the Hazardous Chemical Substances Regulations for the Occupational Exposure Limit. Refer to Section 24 of the Constitution's Legislation and Standards pertaining to Health & Environment.

The Department of Water Affairs and Forestry's Waste Management Series Volume 1, Second Edition 1998 states: "*The aim in hazardous waste disposal, should not be to 'ban' chemicals or waste streams from accepting such streams in the environment. It should be to exert subtle and reasonable controls to make disposal acceptable. Acceptable would then imply that disposal should conform to acceptable risk."*

16 OTHER INFORMATION

Approvals:

Occupational exposure assessment has been done on the final product (actual blasting process). No detrimental health effects were identified. An occupational hygiene risk assessment was done at two of the end users substantiating this. Comprehensive chemical analysis of the product and air samples were done by SABS approved laboratories and an approved inspection authority.

This MSDS conforms with General Administrative Regulations of 6 September 1996 (ISO 11014 / ANSIZ400.1.1996) and South African Committee for Certified Reference Materials.

Date of origin	Originator	Revised by	Date of revision	Revision no	Name of doc.
10 Feb. 1997	Pat Pick	G. Venter	1-Apr-14	10	M.S.D.S.