



Storm Machinery (Pty) Ltd

Innovative suppliers of spray painting & abrasive blasting equipment

Cnr Top & Main Road, Anderbolt, Boksburg
PO Box 6275, Boksburg, 1508

Registration Number: 2015/298914/07
www.stormmachinery.co.za

Garnet 80: Material Safety Data Sheet

(GarnetSA)

1. COMPANY DETAILS

Company Name: Storm Machinery (Pty) Ltd
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2. HAZARDS IDENTIFICATION

Hazchem Code: No Hazchem code allocated.
Poisons Schedule No: No Poisons Schedule number
allocated. Use: Blast cleaning abrasive
Water Jet cutting abrasive
Water filtration media

3. COMPOSITION / INFORMATION ON INGREDIENTS

The material is predominantly almandine garnet and other trace minerals

Chemical Name	CAS Number	Proportion (weight %)
Almandine Garnet $\text{Fe}_3\text{Al}_2(\text{SiO}_4)_3$	1302-62-1	Greater than 95%
Ilmenite FeTiO_3	103170-28-1	Less than 5%
Calcium Carbonate CaCO_3	471-34-1	Less than 2.0%
Zircon ZrSiO_4	149040-68-2	Less than 0.2%
Quartz (Crystalline Silica) SiO_2	14808-60-7	Less than 1%

Other Properties	Typical
Bulk Density:	2.4 tonnes per cubic meter.
Hardness:	7.5 – 8.0 on the Moh scale.
Conductivity	less than 25mS/m



4. HEALTH EFFECTS AND FIRST AID MEASURES

Health Effects

Acute:

Swallowed: Non-toxic. There are no known hazards resulting from accidental ingestion of Garnet as may occur during normal handling. Swallowing a large amount may result in irritation to the digestive system due to abrasiveness.

Eye: Exposure to nuisance dust created by use as a blast cleaning media may cause eye irritation.

Skin: Not irritating to the skin nor health effect known.

Inhaled: Exposure to nuisance dust created during normal handling may cause throat and lung irritation, coughing or shortness of breath.

Chronic: No known health effects in workers arising from long term exposure to this substance in its virgin state. Crystalline silica is known cause of lung fibrosis (silicosis). It has been classified as a human carcinogen. Garnet sand does contain a small amount of free quartz (less than 1%) and precautions should be taken to avoid inhaling the dust during sandblasting operations.

First Aid Measures

Swallowed First aid is unlikely to be required, but if necessary wash mouth with water ensuring the mouthwash is not swallowed. Seek medical attention if discomfort occurs.

Eye: Wash eyes with water to flush out particles. Continue until all particles are removed.

Seek medical attention if soreness or irritation

Skin: Should symptoms develop seek medical attention

Inhaled: Move to fresh air and blow nose to remove particles from nasal passages. If any adverse reaction develops seek medical attention

5. FIRE FIGHTING MEASURES

Flashpoint: Non-explosive

Flammability: Non-flammable

General Hazard: Product is not flammable and does not support combustion

Extinguishing Media: Can be used as a substitute for sand



6. ACCIDENTAL RELEASE MEASURES

Spill and Disposal Wear safety equipment as for normal handling. Avoid generating dust. Vacuum up if possible, otherwise sweep up and re-cycle. If the spilled product is not suitable for re-use, damp down, collect and where possible return to manufacturer for reprocessing. Otherwise dispose of to an approved landfill site and cover with clean fill in accordance with local regulations.

7. SAFE HANDLING INFORMATION

Storage and Transport: No special precautions necessary. Storage area should be ventilated and dust generation minimised when handling loose bulk product. Use good housekeeping practises to keep dust to a minimum

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Standards: Nuisance dust levels should be kept below TWA 10 mg/m³ (ACHIH). If this level is exceeded respiratory protection is required.

Respirable quartz dust :TWA 0.1 mg/m³ (ACHIH)

Engineering Controls: Maintain ventilation and/or dust collection to reduce dust exposure to near- by workers. Maintain a clean and safe work environment and monitor effectiveness.

Personal Protection: Blast cleaning operations should use an AS 1715 approved air fed abrasive blasting hood, such as Nova 2000, as well as leather (or equivalent) gloves and apron when in use. Hearing protection should also be worn when blast cleaning. Protection safety glasses with side shield or goggles complying with approved local standards should be worn

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Pink to red coloured sand with no odour.
Melting Point: Approximately 1250°C
Vapour Pressure: Not applicable.
Specific Gravity: 4.1
Flashpoint: Material is a non-flammable solid.
Flammability Limits: Not applicable.
Solubility in Water: Not soluble in water.



Other Properties

Bulk Density: 2.4 tonnes per cubic meter.
Hardness: 7.5 – 8.0 on the Moh scale.

10. STABILITY AND REACTIVITY

Reactivity: Inert.
Chemical Stability: Stable
Incompatibilities: None in normal or expected
use Decomposition: Decomposition will not occur
Hazardous Reaction: None Known

11. TOXICOLOGICAL INFORMATION

Non Toxic. Crystalline silica is known cause of lung fibrosis (silicosis). It has been classified as a human carcinogen. Garnet sand do contains a small amount of free quarts (less than 1%) and precautions should be taken to avoid inhaling the dust during sandblasting operations

12. ECOLOGICAL INFORMATION

The material is unlikely to cause any environmental damage. It is insoluble in water.

13. DISPOSAL CONSIDERATION

Disposal must be in accordance with local regulations. Used material may be contaminated with foreign material, classification of the foreign material might require further approvals from local regulators.

14. TRANSPORT INFORMATION

Transport is not regulated and may be transported as a non-hazardous material. Trucks transporting bulk material must be covered to prevent dust generation. Likewise bulk bags should be closed prior to transportation.

15. REGULATORY INFORMATION

No known regulations for this product



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16. OTHER INFORMATION

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