

MATERIAL SAFETY DATA SHEET

FOR GARNET

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Date of re-issue: May 2006

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IDENTIFICATION

Product Name: Garnet
Other Names: garnet abrasive, almandine garnet, almandite garnet
Mfg's Product Code: None
CAS Number: 1302-62-1
Dangerous Goods Class and Subsidiary Risk: None allocated.
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

Physical Description/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: 2.3 tonnes per cubic meter.
Hardness: 7.5 – 8.0 on the Moh scale.
Radioactivity: Not detectable above background levels.

Ingredients

Garnet is a natural mixture of 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 96%
Ilmenite FeTiO_3		Less than 2%
Calcium Carbonate CaCO_3		Less than 2%
Zircon ZrSiO_4		Less than 0.5%
Quartz (Crystalline Silica) SiO_2	14808-60-7	Less than 0.5% (warranted)

HEALTH HAZARD INFORMATION

Health Effects

- Acute: None known. Use as a blast cleaning media may create conditions of exposure to nuisance dust.
- Swallowed: No effects known.
- Eye: Exposure to nuisance dust created by use as a blast cleaning media may cause eye irritation.
- Skin: Not irritating to the skin.
- Inhaled: Exposure to nuisance dust created by use as a blast cleaning media 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.

First Aid

- Eye: Wash eyes with water to flush out particles.

PRECAUTIONS FOR USE

- Exposure Standards: Nuisance dust levels should be kept below 10 mg/m³. If this level is exceeded respiratory protection is required.
- 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.
- Flammability: Not flammable.

SAFE HANDLING INFORMATION

- Storage and Transport: No special precautions necessary.
- Spills: No special precautions necessary. Sweep or vacuum material for disposal.
- Disposal: Follow local, state or federal guidelines for disposal of inert solid waste, eg landfill. MATERIAL CONTAMINATED IN USE MAY NEED SPECIAL HANDLING.
- Fire/explosion Hazard: None.

DISCLAIMER

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