



SAFETY DATA SHEET

Garnet Abrasive

SECTION 1 –IDENTIFICATION OF MATERIAL AND SUPPLIER

GHS product identifier: Garnet Abrasive

Other means of identification:

Garnet sand, almandine garnet, hard rock garnet,
natural garnet abrasive.

Product grade/type: 20/40mesh, 30/40mesh, 30/60mesh, 80mesh, 100mesh, 120mesh
150mesh, 180mesh, 220mesh

Recommended use: Blast cleaning abrasive, waterjet cutting abrasive, water filtration media.

Supplier's details:

Emergency phone number:

SECTION 2 – HAZARDS IDENTIFICATION

GHS classification of the substance:2513.20.00

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.

Hazards not otherwise classified: None known.





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SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

This material is a natural mixture of almandine garnet, omphacite and other trace minerals.

Chemical Identity	Common Name	CAS Number	Proportion (weight %)
$\text{Fe}_3\text{Al}_2(\text{SiO})_4$	Almandine Garnet	1302-62-1	Greater than 90%
$(\text{Ca},\text{Na})(\text{Mg},\text{Fe},\text{Al})_3\text{Si}_2\text{O}_6$	Omphacite	None allocated	Greater than 8%
FeTiO_3	Ilmenite	12168-52-4	Less than 0.5%
TiO_2	Rutile	13463-67-7	Less than 0.5%
SiO_2	Crystalline Silica (free)	14808-60-7	Less than 0.1%

SECTION 4 - FIRST AID MEASURES

No acute or chronic health effects known in workers arising from short or long term exposure to this product.

Description of first aid measures:

Ingestion	:Non-toxic. There are no known health effects resulting from accidental ingestion of small amounts that may occur during normal handling. Ingestion of larger amounts may cause abdominal discomfort due to abrasiveness. Seek medical attention if symptoms develop.
Eye contact	:Particle and dust exposure may cause eye irritation due to abrasiveness. Flush with plenty of clean water for at least 15 minutes or until particles are removed. Seek medical attention if irritation or soreness persists.
Skin contact	:There are no known health effects from skin contact that may occur during normal handling. Seek medical attention if symptoms develop. Contact with material under pressure will damage skin by abrasion. Clean and dress any open wounds and seek medical attention.
Inhalation	:Exposure to dust created by use as a blast cleaning media may cause throat and lung irritation, coughing or shortness of breath. Move to fresh air and blow nose to remove particulates from nasal passages. Seek medical attention if symptoms persist.

Most important symptoms and effects, both acute and delayed:





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Ingestion: No specific symptoms noted.

Eye contact: No specific symptoms noted.

Skin contact: No specific symptoms noted.

Inhalation: No specific symptoms noted.

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

It is recommended that eyewash facilities are available in the workplace.

SECTION 5 - FIRE FIGHTING MEASURES

This product is non-flammable and does not support combustion.

Extinguishing media :Non-flammable. Use media suitable for the surrounding materials.

Specific hazards arising from the chemical : None known.

Special protective equipment and precautions :No specific procedures given. Use protective equipment and precautions suitable for surrounding fire.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

No special precautions necessary. Wear safety equipment as for normal handling.

Environmental precautions:

No special precautions necessary. This material should not be dumped in nature but collected and disposed of in accordance with local, state or federal guidelines.

Methods and materials for containment and cleaning up:

If possible, vacuum the material to avoid generating unnecessary dust, otherwise, sweep and shovel any spillages.





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SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling:

No special precautions necessary.

Conditions of safe storage, including any incompatibilities:

Storage areas should be ventilated and dust generation minimised when handling loose bulk product. Use good housekeeping practices to keep nuisance dust to a minimum.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters/Exposure Standards:

Crystalline silica (quartz) respirable dust: 0.05 mg/m³ TWA (respirable dust is $\leq$ 7 microns particle equivalent aerodynamic diameter) may be exceeded when the product is used for dry blast cleaning, depending on material being blasted.

Total dust (inspirable): 10 mg/m³ TWA (time weighted average) may be exceeded when the product is used for dry blast cleaning, depending on material being blasted.

Appropriate engineering controls:

Maintain ventilation and/or dust collection to reduce exposure to dust generated during handling, use and clean-up. Maintain a clean and safe work environment and monitor effectiveness.

Individual protection measures:

Follow local, state or federal guidelines for the use of personal protection equipment. Blast cleaning operations should use an air fed abrasive blast hood, as well as leather (or equivalent) gloves and apron when in use. Hearing protection should be worn when blast cleaning.

During general handling of product, it is recommended to use safety glasses with side shields or goggles. If risk of inhaling dust is present wear, at minimum, a P1 personal respirator (disposable or cartridge type).

The effects from exposure to this product will depend on several factors including frequency and





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duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. It is recommended that users will assess the risks for their method of application and apply control methods where appropriate.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Red & green coloured free flowing sand.
Odour	: Odourless.
Odour threshold	: Not applicable.
PH	: Neutral
Melting point	: Approximately 1250°C
Flash point	: Non-combustible.
Evaporation rate	: Not applicable.
Flammability(solid,gas)	: Non-flammable.
Upper/lower flammability or explosive limits	: Non-flammable.
Vapour pressure	: Not applicable.
Vapour density	: Not applicable.
Specific gravity	: 4.0
Solubility	: Insoluble.
Radioactivity	: Not detectable above background levels.
Hardness	: 7.5-8.0 Mohs
Particle size	: Average range between 0.1 - 1.0mm, depending on grade.
Source	: Hard rock.
Bulk Density	: Approximately 2.2 t/m ³
Volatile organic compounds content	: Below detectable limits.
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature:	Not applicable.
Decomposition temperature	: Not applicable.
Viscosity	: Not applicable

SECTION 10 - STABILITY AND REACTIVITY





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Reactivity : Inert solid under normal and anticipated storage, handling and use conditions.

Chemical stability : Stable solid under normal and anticipated storage, handling and use conditions.

Possibility of hazardous reactions : None known.

Conditions to avoid : None known.

Incompatible materials : None known.

Hazardous decomposition product: None known.

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on toxicological effects:

No acute or chronic health effects known in workers arising from short or long term exposure to this product. This product does not contain toxic substances above known reportable limits.

Symptoms related to physical, chemical and toxicological characteristics: None known.

Delayed and immediate effects and also chronic effects from short and long term exposure: None known.

Numerical measures of toxicity: None known.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:

This product is a naturally occurring mineral with no known ecotoxicity.

It is insoluble in water and unlikely to contaminate waterways or food chains.

Persistence and degradability: Stable and inert product which is not readily biodegradable.

Bioaccumulative potential: This product is not bioaccumulating.

Mobility in soil: Below detectable limits.

Other adverse effects: None known.

SECTION 13 - DISPOSAL CONSIDERATIONS





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Disposal methods:

Follow local, state or federal guidelines for disposal of inert solid waste, e.g. for landfill.

Waste disposal considerations:

MATERIAL CONTAMINATED OR REDUCED TO DUST IN USE MAY NEED SPECIAL HANDLING AND DISPOSAL. IT IS THE RESPONSIBILITY OF THE USER TO UNDERTAKE ANY EVALUATION CLASSIFICATION AND DISPOSAL OF MATERIAL AFTER USE.

SECTION 14 - TRANSPORT INFORMATION

UN number : None allocated.

UN proper shipping name : Not classified for transportation.

Transport hazard class(es) : Not classified under ADG (land transport) code.
Not classified under IMDG/IMO (sea transport) code.
Not classified under IATA/ICAO (air transport) code.

Packing group : Not classified for transportation.

Environmental hazards : Not classified as a marine pollutant. Does not meet the criteria of 2.9.3.3.1 "environmentally hazardous substances (aquatic environment)".

Special precautions for user : None necessary. It is recommended to keep bags closed and dry bulk loads covered to prevent dust generation and moisture incursion.

Hazchem code : None allocated.

Harmonised System code : 251320

SECTION 15 – REGULATORY INFORMATION

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

SECTION 16 – OTHER INFORMATION





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Practice for the Preparation of Safety Data Sheets.

GHS compliant SDS

Other Special Considerations : None identified.

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