

SAFETY DATA SHEET

**NOT CLASSIFIED AS HAZARDOUS
ACCORDING TO CRITERIA OF SAFE WORK AUSTRALIA**

SECTION 1 - IDENTIFICATION

Product identifier:	Australian Garnet	Manufacture Code:	AG 20/40, AG 30/60 and AG 80 Mesh
Other Names:	Almandine garnet, alluvial garnet, 20/40 mesh, 30/60 mesh, 80 mesh, 120 mesh	Recommended Use:	Surface preparation or cutting by impact for abrasive blasting or waterjet cutting. Water filtration media.
Supplier Name:	Australian Garnet Pty Ltd	UN Number:	None allocated
Supplier Address:	Lot 1 George Grey Drive, Yallabatharra, Shire of Northampton, WA 6535	Dangerous Class/ Subsidiary Risk:	Not relevant
Supplier Contact:	sales@australiangarnet.com.au +61 8 9443 2928	Hazchem Code:	None allocated
Emergency Contact:	+61 8 9443 2928 Monday - Friday 8:00am - 5:00pm GMT +8	Poison Schedule No:	None allocated

SECTION 2 - HAZARDS IDENTIFICATION

GHS Classification:	HTS Code 2513.20.1000 Natural Garnet Not an explosive and non-flammable
GHS label elements inducing precautionary statement:	This product is predominately garnet of the almandine variety. It is a non-hazardous substance. Traces of other material include ilmenite and calcium carbonate; these are also non-hazardous.
Other Hazards:	Do not inhale dust generated from the product when in use or from used product. Product may be contaminated from use.

SECTION 3 - COMPOSITION/ INFORMATION ON INGREDIENTS

COMMON NAME	CHEMICAL IDENTITY	CAS NUMBER	% OF WEIGHT
Almandine Garnet	$\text{Fe}_3\text{Al}_2(\text{SiO}_4)_3$	1302-62-1	≥ 96%
Ilmenite	FeTiO_3	12168-52-4	< 3%
Calcium Carbonate	CaCO_3	471-34-1	< 1%
Crystalline Silica (free)	SiO_2	14808-60-7	< 0.1%

SECTION 4 - FIRST AID MEASURES

	HEALTH EFFECTS	FIRST AID
Swallowed:	There are no known health effects – product is inert.	Non-toxic. None known, seek medical attention if symptoms develop
Eye:	Irritation, discomfort, tearing may result if recommended exposure Limits are exceeded	Rinse with water, seek medical attention if irritation or soreness persists
Skin:	There are no known health effects – product is inert. Under pressure will abrade	Clean and dress open wounds, seek medical attention as required
Inhaled:	Dust in excess of recommended exposure limits may result in irritation of the respiratory tract	Remove to fresh air, seek medical attention if symptoms persist

ADVICE TO DOCTOR:

chronic lung conditions may be aggravated by exposure to high concentrations of dust.

SECTION 5 - FIRE-FIGHTING MEASURES

Flammability:	Non-flammable
Explosion Hazard:	Does not support combustion
Extinguishing Media:	Non-flammable. Use media suitable for surrounding materials.
Specific hazards arising from the chemical:	None known
Special protective equipment and precautions:	None known. Use suitable protective equipment and precautions for surrounding materials.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:	Non-hazardous substance, no special precautionary measures required. Wear personal protective equipment as per Section 8 of this SDS
Environmental precautions:	Inert material, no special precautionary measures required. Follow disposal recommendations as per Section 13 of this SDS
Methods and materials for containment and cleaning up:	Sweep up, shovel or vacuum spillage. Wear personal protective equipment as per Section 8 of this SDS.

SECTION 7 - HANDLING AND STORAGE

Handling:	No special safe handling precautions required. Wear personal protective equipment as per Section 8 of this SDS.
Storage:	No special safe storage requirements for packaged product. For optimal product quality keep packaging away from moisture in and undercover area away from direct sunlight and rain. Loose bulk should be stored undercover in a dry well-ventilated area, with dust generation minimized during handling.
Ventilation:	Local exhaust recommended in case of dusting

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Exposure to Crystalline Silica (SiO₂) Quartz respirable dust should not exceed 0.05mg/m³ based on an 8-hour Time Weighted Average (TWA), according to the Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

Nuisance dust, measured as inhalable dust, should not exceed 10mg/m³ based on an 8-hour TWA, according to the Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

It is the responsibility of the duty holder or person conducting the business to conduct monitoring and ensure no person at the workplace faces exposure to the substance that exceeds the exposure standard.

Engineering controls:

Maintain air concentrations below occupational exposure standards through appropriate engineering controls through ventilation and/or dust collection systems
Work environment should be kept clean and monitoring systems in place as necessary.

Individual Personal Protection:

Follow Local, State and Federal Regulations for personal protection equipment guideline

Approved eye protection, such as safety glasses, is recommended during handling and clean-up.

Approved dust masks, such as P2 or N95, is recommended when loose pouring or decanting material

Approved air fed helmets with breathing filtration to be used in dusty operating conditions and/or during abrasive blasting, such as a Nova 2000.

Approved hearing protection, leather gloves (or similar), and apron to be used during abrasive blasting applications.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

PROPERTY	REMARKS / GUIDANCE
Physical State	Solid
Colour	Deep Pink to Reddish Brown
Odour	Odourless
Melting point	Approximately 1,250°C (2282°F)
Boiling point or initial boiling point and boiling range	Not applicable
Flammability	Non-flammable
Lower and upper explosion limit/ flammability limit	Non-combustible
Flash point	Non-combustible
Auto-ignition temperature	Not applicable
Decomposition temperature	Not applicable
pH	Not applicable
Kinematic viscosity	Not applicable

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PROPERTY	REMARKS / GUIDANCE
Solubility	Insoluble
Partition coefficient n-octanol/water (log value)	Not applicable
Vapour pressure	Not applicable
Density and/or relative density	2.3 T/m ³
Relative vapour density	Not applicable
Particle characteristics	Shape: Sub-angular Size Range: 0.05 to 0.85 millimetre, grade dependant Specific gravity: 4.1g/cc Harness: 7.0 - 8.0 Mohs

SECTION 10 - STABILITY & REACTIVITY

Reactivity:	Non-Radioactive. Inert material under recommended usage handling and storage conditions.
Chemical Stability:	Stable under recommended usage handling and storage conditions.
Possibility of hazardous reactions:	None known
Conditions to avoid:	None known
Incompatible materials:	None known
Hazardous Decomposition Products:	None known.

SECTION 11 - TOXICOLOGICAL INFORMATION

HAZARDS

Acute Toxicity:	No known toxic substance above reportable limits.
Skink corrosion/irritation:	There are no known health effects – product is inert. Under pressure will abrade. Product is abrasive in nature and can cause irritation, discomfort and tearing.
Serious eye damage/irritation:	Do not rub eye, flush with plenty of clean water for at least 15 minutes or until particles removed
Respiratory or skin sensitization	Silicosis may result if exposure limits stated in Section 8 are exceeded and/or individual personal protection measures in Section 8 are not adhered to.
Germ cell mutagenicity:	None known
Carcinogenicity:	Non-carcinogenic
Reproductive toxicity:	None known
STOT-single exposure:	None known
STOT-repeated exposure:	None known
Aspiration hazard:	Maybe harmful if swallowed and enters airways

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LIKELY ROUTES OF EXPOSURE

Swallowed:	There are no known health effects – product is inert.
Eye:	Irritation, discomfort, tearing may result if recommended exposure Limits are exceeded
Skin:	There are no known health effects – product is inert. Under pressure will abrade
Inhaled:	Dust in excess of recommended exposure limits may result in irritation of the respiratory tract.
Symptoms related to physical, chemical, and toxicological characteristics:	None known.
Delayed and immediate effects and also chronic effects from short- and long-term exposure:	If exposure limits are exceeded and/or personal protection guidelines not adhered to from Section 8 then Silicosis may result from high concentrations of crystalline silica and/or dust over a short-term or develop after long-term exposure over a number of years.
Numerical measures of toxicity (such as acute toxicity estimates):	None known.

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity:	Inert naturally occurring mineral with no known toxicity
Persistence and degradability:	Stable inert product that is not readily biodegradable.
Bioaccumulative potential:	Not bioaccumulating
Mobility in soil:	Below detectable limits
Other adverse effects:	None known.

SECTION 13 - DISPOSAL CONSIDERATION

Disposal	Follow Local, State and Federal Regulations for disposal of solid inert waste Material that has been contaminated might require special handling and disposal considerations. It is the responsibility of the user to assess each situation individually and dispose of the material accordingly.
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SECTION 14 - TRANSPORT INFORMATION

UN Number:	None allocated
UN Proper Shipping Name:	Not classified for transportation.
Transport hazard class:	Not classified as Dangerous under the ADG Code
Packing group:	Not classified for transportation
Environmental hazards:	Not classified as a marine pollutant

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Special precautions for user:

None necessary. It is recommended to transport covered with bags to minimise dust exposure and moisture ingress.

Transport in bulk according to IMO instruments:

Bulk cargo shipped as Garnet.
Non harmful to the marine environment.
International Maritime Solid Bulk Cargoes (IMSBC) Code – Sand Heavy Mineral.
MHB – Not applicable. Group - A
Cargo might liquefy if shipped at a moisture content in excess of its transportable moisture limit (TML). See sections 7 and 8 of IMSBC Code.
This cargo is non-combustible or has a low fire risk.

SECTION 15 - REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question:

Safe Work Australia Abrasive Blasting Code of practice detail how to manage the risks associated with abrasive blasting and outline limits crystalline silica limits for garnet.
Follow Local, State and Federal Regulations for use of garnet in abrasive blasting and waterjet cutting applications.
No known additional regulations for this product.

SECTION 16 - OTHER INFORMATION

This safety data sheet has been prepared by Australian Garnet Pty Ltd and complies with the requirements of Safe Work Australia 'Preparation of safety data sheets for hazardous chemicals' Code of Practice July 2020 and the Global Harmonised System of Classification and Labelling of Chemicals 7th Edition: ANNEX 4 Guidance on the preparation of Safety Data Sheets.

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A SUPERIOR ALLUVIAL GARNET, AUSTRALIAN OWNED AND SOURCED, THAT CONSISTENTLY OUTPERFORMS ALTERNATE ABRASIVES.

