



MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF MATERIAL AND COMPANY

Material (Product) Name : Garnet
Other names : Garnet 12/20, Garnet 20/40, Garnet 30/60,
Garnet 80#, Garnet Abrasive
Supplier : Kunal Exim
Address : 31-36, Palika Bazar, Opp. Nagar Palika Office, Mehsana, India.
Telephone Number : 0091-2762-245166, 0091-9825-533221.

2. INFORMATION ON COMPOSITION AND INGREDIENTS

Typical Composition – Mineralogical

CHEMICAL NAME	CAS NUMBER	PROPORTION (%)
Almandine Garnet $Fe_3Al_2(SiO_4)_3$	1302-62-1	Greater than 95%
Ilmenite $FeTiO_3$	103170-28-1	Less than 2%
Calcium Carbonate $CaCO_3$	471-34-1	Less than 1.5%
Zircon $ZrSiO_4$	149040-68-2	Less than 0.2%
Quartz SiO_2	14808-60-7	Less than 0.5%

Typical Chemical Composition

Al_2O_3 ZrO_2 : 22%
 SiO_2 : 38%
 $FeO + Fe_2O_3$: 28.9%
MgO: 5%
 TiO_2 : 1.0%
 ZrO_2 : 0.01%

3. HAZARDOUS IDENTIFICATION

The product is almandine garnet and Non-Hazardous substance as per the classification in ISO. Traces of dust in the unused product are from calcium carbonate which is also Non-Dangerous and Non-Hazardous.

4. HEALTH HAZARD INFORMATION

Acute : No known effects of exposure. Should care to limit exposure to nuisance dust during usage in blasting.
Chronic : No health effects from long term exposure to this material.
Eye : Dust created by usage can have moderate eye irritation.
Inhalation : Nuisance dust created by usage can be irritating if inhaled at high concentrations and may cause symptoms such as coughing, sneezing, lung irritation or shortness of breath.



Skin	:	Not irritating to skin.
Ingestion	:	There are no known hazards caused by ingestion but is not recommended for ingestion.
Radiation	:	Not Detectable above background levels

5. FIRST AID MEASURES

Eye	:	Wash eyes with large amount of water to flush the substance out of eye and can seek medical attention if any irritation or soreness of eye persists.
Inhalation	:	Remove from source of exposure into fresh air and seek medical attention if any symptoms persist.
Skin	:	Wash skin with soap and warm water. Seek medical attention if any irritation or soreness of the skin develops.
Ingestion	:	Rinse mouth with water to remove substance from mouth and seek medical attention if swallowed in high quantities.

6. FIRE FIGHTING MEASURES AND ACCIDENTAL RELEASE MEASURES

This material is non-flammable and non-explosive. Use any protective equipment and extinguishing agents are suitable for the primary cause of fire and packaging if any.

Wear safety equipment for normal handling, if possible sweep or vacuum the material to avoid generating dust, recycle/ reuse or dispose to landfill or licensed recovery facility subject to local regulations.

7. HANDLING AND STORAGE

No special precautions necessary. Storage in closed areas with ventilation so that the dust generation is minimized while handling loose bulk product. Use good housekeeping practices to keep dust to a minimum.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Spill/Leakage	For spill or leakage, sweep or vacuum for recovery or disposal. Garnet extraction may be required to minimize dust levels below exposure limits.
Protective equipments	Safety goggles or glasses. Respirator may be required to prevent ingestion while usage of material.
Respirable Dust	$\leq 7 \text{ mg/m}^3$ as total dust.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Chemical formula	:	$\text{Fe}_3\text{Al}_2(\text{SiO}_4)_3$	Flash point	:	None
Colour	:	Pink to Red, Brown	Solubility (water)	:	Insoluble
Odour	:	Odourless	Explosion limit	:	Not pertinent
Melting point	:	Approximately 1250°C	Grain Size	:	-20 to 100 mesh
Shape	:	Angular	Boiling Rate	:	Not Pertinent
Hardness	:	7.5 – 8.0 Mohs Scale	Specific gravity	:	4.25
Bulk density	:	2.3 t/m ³	pH	:	7.0



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10. STABILITY AND REACTIVITY

Chemical stability	: Stable.
Reactivity	: Inert.
Material Incompatibilities	: None known.
Decomposition	: Not applicable.
Conditions to avoid	: None known.

11. TOXICOLOGICAL INFORMATION

Non Toxic. Its natural mineral and has no other known hazards.

12. ECOLOGICAL INFORMATION

The material is a naturally occurring mineral and with no known ecotoxicity. It is insoluble in water and unlikely to contaminate waterways or enter the food chains.

13. DISPOSAL CONSIDERATIONS

This is a Non hazardous material; disposal must be in accordance with local regulations. If approved, may be transferred to an approved landfill site or facility with approved recycling and processing centers.

14. TRANSPORT INFORMATION

Transport is not regulated & may be transported as a non-hazardous material. It's advisable to transport in covered container or covered with tarpaulin if needed to prevent the dust if in case of any wind.

15. REGULATORY INFORMATION

No known additional regulations for this product.

Radiological protection: The regulations pertaining to radiological protection vary from country to country. It is the responsibility of the buyer to ensure that those are met in accordance with his/her country law.

16. OTHER INFORMATION

For further information on product, please contact the registered address.

Preparation Information:

This MSDS has been prepared by KUNAL EXIM.

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