

FIRE FIGHTING MEASURES

This is a non combustible material. Use whatever protective equipment and extinguishing agent are suitable for the primary cause of fire.

HANDLING AND STORAGE

Storage Transport is not regulated and there is no specific storage requirement but, storage should be designed to minimise creation of the dust.

Spillage Wear protective equipment as specified for handling. Sweep or vacuum up and reuse or dispose. Avoid generation of dust.

Waste disposal Disposal to land fill such a way as to prevent generation of dust and subjected to local regulations.

Fire explosion Incombustible

Fire extinguishing Use whatever protective equipments and extinguishing agent that are suitable for primary cause of fire.



EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation Ventilation requirement will depend upon handling methods and amount in use but extraction or make up air may be required to minimise dust layers/levels below exposure limits.

Protective equipments Safety goggles or glasses. A dust type respirator may be required to prevent ingestion.

TLV(TWA) 10 mg/m3 as total dust.

TLV(TWA) 5 mg/m3 as total dust.



Company & Address

Blast Abrasive Pvt.Ltd
Badaputty, Kalipaliy -761020,
Dt. Ganjam, Orissa.
Tel & Fax : 0680-2291152
Web-www.blastabrasive.com



Distributor



PHYSICAL AND CHEMICAL PROPERTIES

Chemical formula	FeAl ₂ (SiO ₄) ₃	Flash point	None.
LOI	-	Explosion limit	Not pertinent.
Colour	Rose Red	Solubility (Water)	Insoluble
Odour	Odourless	Vapour pressure	Not pertinent
Melting point	1500C (Almandite)	Grain Size	-35 + 100 mesh
Evaporation rate	Not pertinent	Hardness	60 - 70 Mohrs Scale
Specific gravity	4.25	Crystal system	Isometric, Orthorhombic
Bulk density	2200 - 2300 kg/m ³	% Volatiles	None
pH	60 - 70	Flammability	Non combustible

STABILITY AND REACTIVITY

Chemical stability	: Stable
Reactivity	: Inert
Incompatibilities	: None in normal or expected use.
Decomposition	: Decomposition will not occur

TOXICOLOGICAL INFORMATION

Non Toxic

ECOLOGICAL INFORMATION

The matter is unlikely to cause any environmental damage if handled, used and disposed off in the approved manner. It is insoluble in water and unlikely to contaminate waterways or enter the food chains.

DISPOSAL CONSIDERATIONS

This is a Non hazardous material disposal must be in accordance with federal state and local regulations. Consult and comply with current regulations. If approved, may be transferred to an approved landfill site.

TRANSPORT INFORMATION

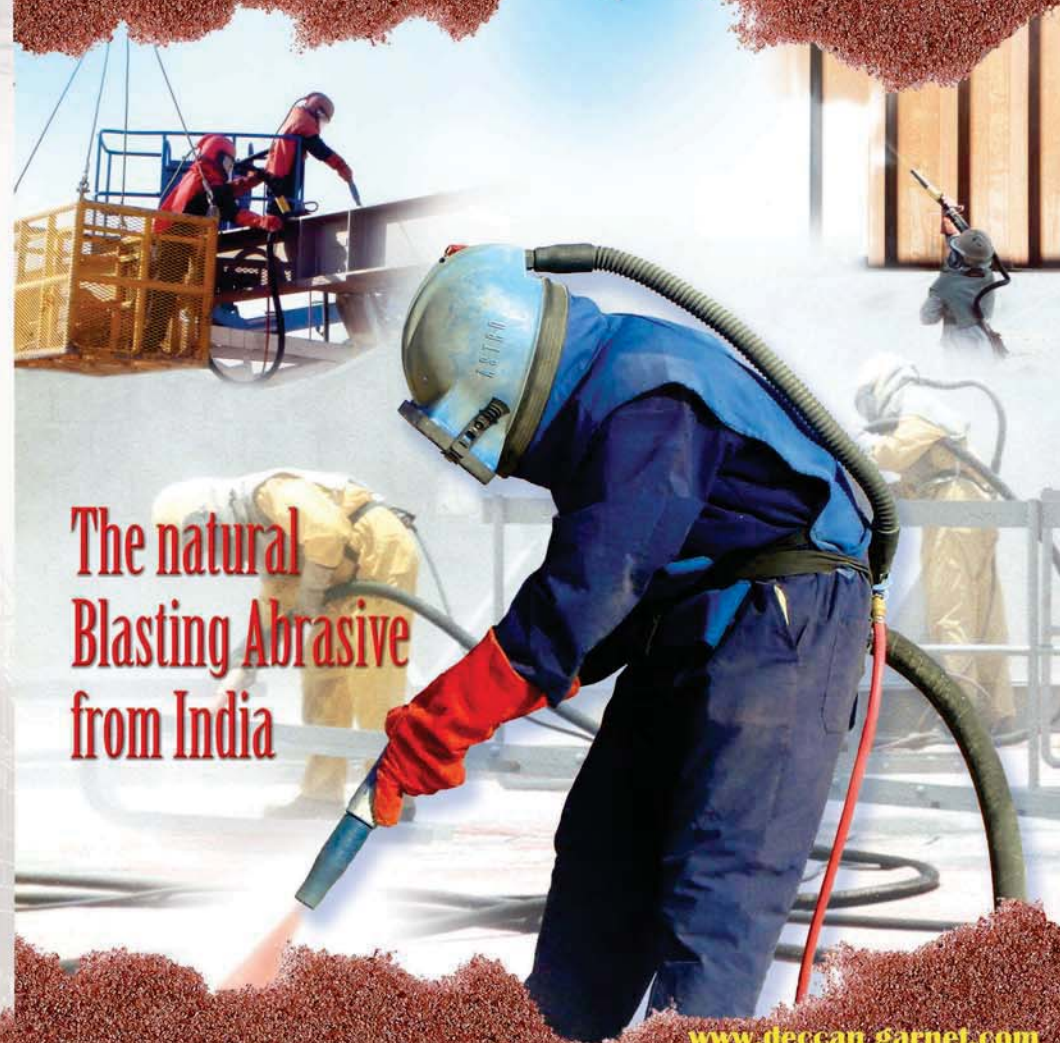
Transport is not regulated & may be transported as a non-hazardous material. Trucks transporting/carrying bulk material should be covered to prevent dust generation.

REGULATORY INFORMATION

Labelling : May be required in the USA if quartz e exceeds 010%

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.

DECCAN GARNET



The natural
Blasting Abrasive
from India

www.deccan_garnet.com

Deccan garnet is an environmentally, friendly, hard, angular abrasive.

Deccan garnet is an environmentally, friendly, hard, angular abrasive. Deccan Garnet can be used in a wide variety of abrasive blasting applications, including blast rooms, and shipyards. Because it is a hard and heavy abrasive garnet can increase productivity while reducing the amount of abrasive need.

The heavy, sub angular shaped grains with a hardness of 7 Mohs, provide high impact and cutting action with low amounts of dust emitted. With less dust and improved cutting, garnet can reduce clean up and increase productivity.

Abundant raw material reserves in Deccan Peninsula and a quality controlled processing plant ensures the product availability in consistent high quality.

Features

- Can be recycled several time.
- Cuts fast and reduce abrasive consumption.
- Less abrasive used means lower disposal cost.
- Environmentally, friendly - no heavy metals.
- Low dusting - better visibility while blasting.



Garnet grade

- 20 x 40 Mesh (Coarse) - Removes heavy coatings and rust. While maintaining a consistent profile, typically ranging from 75-100 Micron on steel surfaces.
- 30 / 60 Mesh (Medium) - types common grade used for new steel and various types of maintenance work on coatings resulting in typical profile between 50-75 Micron on steel surfaces.
- 80 Mesh (Fine) - typically used on more sensitive surface, typically produces a 40 to 50 microns profile on steel surfaces.

GARNET GRADE (NORMAL)

Technical Specification

TYPICAL MINEROLOGICAL ANALYSIS		TYPICAL CHEMICAL ANALYSIS	
Ilmenite	1.0% - 2.5%	SiO ₂	40.0%
Garnet	97.3% - 98.9%	Al ₂ O ₃	21.0%
Mineral purity of garnet	97.0% (Min)	FeO	26.0%
Quartz	0.1% - 0.3%	Fe ₂ O ₃	2.9%
Non-magnetic other than quartz	0.4% - 0.7%	TiO ₂	1.0%
		MnO	0.5%
		CaO	0.9%
		MgO	6.8%
		P ₂ O ₅	0.03%

SIEVE ANALYSIS

MESH (ASTM SCR)	SIEVE OPENING MICRONS	CUM WEIGHT % RETAINED
35	425	0.0 - 5.0
48	300	10.0 - 30.0
65	212	74.0 - 90.0
100	150	94.0 - 99.0
150	106	99.5 - 100

SPECIFIC GRAVITY	: 4.1
BULK DENSITY	: 2,200 - 2,300 Kg/m ³
HARDNESS (Mohs)	: 6.5 to 7.5

Physical Characteristics

Bulk Density	- 2200 - 2300 Kg /M ³
Specific Gravity	- 4.25
Hardness (Mohs)	- 6.0-7.0
Melting Point	- 1315 Deg C
Particle Shape	- Sub- Rounded to Sub- Angular
Reactivity	- Inert

Chemical Composition

Almandite garnet - Fe₃Al₂(Si₃O₁₂)
Garnet, a homogenous mineral, contains no free chemicals, all oxides and dioxides are combined chemically.

Other Characteristics

Radioactivity	- Nil Detectable above background
Moisture Absorption	- Non- Hygroscopic
Total Chlorides	- Less than 50 ppm
Free Iron	- Less than 0.01%
Copper	- Less than 0.01%
Other Heavy Metals	- Less than 0.01 %

PCKING DETAILS

25 Kg multilayer paper bags shrink wrapped to 2 MT pallets 1000 or 2000 Kg top and bottom spouted bulk bags with internal PE Liner.

Note:

- Garnet being a natural product, its chemical analysis is expected to vary.
- Variations in Sieve analysis is furnished for guidance purpose. As it a naturally occurring minerals, its grain size is found to vary from time to time.



MATERIAL SAFETY DATA

Garnet

PRODUCT AND COMPANY IDENTIFICATION

Product identification

Product names : Garnet
Other name : Garnet - Medium grade

Company identification

Company & Address
Blast Abrasive Pvt.Ltd
Badaputty, Kalipally -761020,
Dt. Ganjam, Orissa,
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COMPOSITION / INFORMATION INGREDIENTS

POISON SCHEDULE	None Allocated	HAZ CODE	None Allocated
UNNO.	None Allocated	CLASS	None Allocated

Typical Analysis - Mineralogical

Garnet:	92.2%	Rutile:	0.1% (approx)
Zircon:	0.2%	Ilmenite:	1.8%
Monazite:	0.2%	Sillimanite-Kyanite:	Trace
Leucosene:	0.10%	Quartz:	0.2%
Others:			

Typical Analysis - Chemical

Chemical Name	CAS number	Proportion (%)
AD03 ZRO2	1344-38-1/134-23-4	21
SiO2	14808-60-7	40
FeO	1345-25-1	26
Fe2O3	1309-37-1	29
TiO2	13463-67-7	1.0
ZrO2	1314-23-4	0.01
P2O5	1314-82-0	0.03
Cr2O3	1333-82-0	0.04
Th-U	7440-29-1 & 7440-61-1	200 ppm

FIRST AID MEASURES

- Eye** Hold eye as open and rinse continuously with a gentle stream of clean running water for at least 15 minutes. Seek medical attention or soreness of eye persist.
- Inhalation** Remove from source of exposure into fresh air and seek medical attention if any symptoms persist.
- Skin** No specific first aid is required for skin contact. Remove clothing & wash skin with soap and / or water. Seek medical attention if any irritation or soreness of the skin develops.
- Ingestion** First aid is unlikely to be required but if necessary rinse mouth with water ensuring that mouth wash is not swallowed and seek medical attention as a precautionary measure if large amount have been ingested.

HAZARDS IDENTIFICATION

- Eye** Solid or dust is moderate eye irritant due to its abrasive action. May be regarded as nuisance dmpmtos dust can be irritating if inhaled at high concentrations and may cause symptoms such as coughing and sneezing. The TLV (TWA) for occupational exposure nominate 10mg/m³ as total dust and 5mg/m³ as a respirable dust.
- Skin** Non hazardous.
- Ingestion** There are no known hazards caused by accidental ingestion of small amount such as might occur during normal handling. Ingestion of larger quantities might cause irritation of the gastro-intestinal system as a result of abrasive action.
- Radiation** Garnet contains trace (ppm level) amount of the naturally occurring radio-active substances such as Uranium & Thorium. However, the concentration of the Uranium and Thorium are not sufficient for garnet to be classified as a radioactive substance under International Atomic Energy Regulation for the safe transport of radioactive material.



ACCIDENTAL RELEASE MEASURES

Wear safety equipment for normal handling, avoid generating dust, sweep or vacuum up, recycle/reuse or dispose to landfill subject to local regulations. Transport is not regulated and no specific storage requirements.

