

HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

Product/Chemical Name: Garnet Abrasive Grains and Powders
 Chemical Formula: $Fe_3Al_2(SiO_2)_3$
 Other Designations: Almandite Garnet - Garnet
 General Use: Industrial Abrasives
 Distributor/Supplier: Norspray AS, Maskinveien 10, N-4033 STAVANGER. Tel: +47 5122 0700

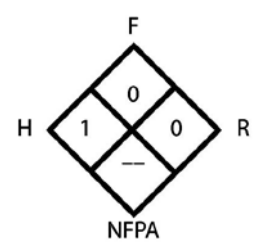
Garnet is a natural mixture of Almandine garnet - with Mg and Mn in partial substitution for Fe in the formula and other minerals. The following substances are present.

Substances	Wt %	Limit in use	Remarks
Crystalline Silica	<0.5%	0.10 Mg/cu.m	If these levels are exceeded respiratory must be applied.
Respirable dust	NA	5 Mg/cu.m	
Nuisance dust	NA	15 Mg/cu.m	

PHYSICAL AND CHEMICAL CHARACTERISTICS

Melting Point	1320 °C
Specific Gravity (H ₂ O = 1.0)	4.0 to 4.5
Solubility in Water	Non-soluble
Appearance and Odour	Reddish brown, no odour
Physical State	Solid
Viscosity	Not Applicable
Boiling Point	Not Applicable

FIRE AND EXPLOSION HAZARD DATA

Flammability	Non - Flammable Solid	
Flash Point (Method used)	Not relevant	
LEL - Not Applicable	NA	
UEL - Not Applicable	NA	
Extinguishing Media	Use appropriate extinguishing media for the surrounding fire	
Unusual Fire or Explosion Hazards	None	

STABILITY & REACTIVITY DATA

Stability	Stable
Polymerization	Can not occur
Incompatibility	None known
Hazardous Decomposition or By Products	None known

HEALTH HAZARD DATA

Route(s) of Entry	Inhalation?	Skin?	Ingestion?
	Possible	None	None
Health Hazards (Acute and Chronic)	None Known. Use care to limit possible exposure to nuisance dust during blast cleaning.		
Carcinogenicity	Crystalline Silica (Quartz) contains less than 0.5%		
Signs and Symptoms of Exposure	Exposure to nuisance dust may cause eye, throat or lung irritation, coughing or shortness of breath.		
Medical Conditions Generally Aggravated by Long-Term Exposure	Chronic bronchitis, emphysema and other lung diseases may be aggravated by exposure to nuisance dust.		
Emergency and First Aid Procedures	Eye Contact: Wash eyes with water to flush out dust particles. Skin Contact: Wash affected area with soap and water. Ingestion : Obtain first aid or medical assistance, if needed. Inhalation : Remove to fresh air, if breathing is difficult, administer oxygen, obtain first aid, if needed		

PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be Taken in Case Material is Released or Spilled	No special precautions are necessary. Sweep or Vacuum material for disposal or recovery.
Waste disposal Method	Follow local, state and federal guidelines for disposal of inert solid waste. MATERIAL CONTAMINATED IN USE MAY REQUIRE SPECIAL HANDLING
Precautions to be Taken in Handling and Storing	NONE - Use good house keeping practices to reduce dust. When handling use approved hand and eye protection as desired by user. If needed use approved Respiratory protection.
Other precautions	Use material only for the purpose intended, and incorporate methods of dust control to maintain airborne dust within federal or local TLV limits.

CONTROL MEASURES

Respiratory Protection (Specify Type)	NIOSH/MSHA-approved filters and air supplied hoods for blasters.		
	Ventilation	Local Exhaust	Special
	YES	Use when blast cleaning	None
		Mechanical (General)	Other
	Meet dust TLV.	None	
Protection Gloves	Leather gloves, leather cabs and paper mask.		
Eye Protection	Recommend safety glasses with side shields approved by Federal.		
Other Protective Clothing or Equipment	Normal Safety protection is adopted		
Work/Hygienic Practices	Maintain a clean and safe work environment and monitor work practices.		

SPECIAL COMMENTS & PRECAUTIONS:

The above said information is believed to be accurate but is not warranted with respect to the accuracy of the information or recommendations. The users are advised to confirm in advance of the need that the information is current and applicable to their circumstances and usage.

Revision: 11/2010