



Micromeritics Instrument Corp. and Micromeritics Analytical Services
 www.micromeritics.com www.particletesting.com
 Surface Area - Porosity - Density - Particle Size, Shape & Count - Catalytic Activity - Surface Energy - Analytical Services

Cover Sheet



INSTRUMENT CORPORATION
 ONE MICROMERITICS DR.
 NORCROSS, GA 30093-1877 U.S.A.

MSDS
Ref. Mat. Garnet PS ~ 11.0 μM

						DWN BY	J. Pittman
						ENGR	J. Mocny
						ENGR SIG	P. Hendrix
						HR SIG	J. Mocny
A	Revision	JP	07/29/04		040293	QA SIG	A. Dovin
-	Formal Release	C. Bills	3/3/00		000120D	ES SIG	K. Massengill
REV	REVISION DESCRIPTION	BY	DATE	CHK	REL. NO.		

SIZE	NUMBER	PAGE
A	004/16811/00MSDS	X of 4

Micromeritics Material Safety Data Sheet

Title : Ref. Mat. Garnet PS~11.0 μM
Date of Preparation : 07/29/04

MSDS No. : 004/16811/00MSDS
Revision : A

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Garnet

Chemical Formula: (Fe, Mg)₃Al₂(SiO₄)₃

CAS Number: 1302-62-1

General Use: Particle Size Reference Material

Supplier: Micromeritics Instrument Corp.
1 Micromeritics Dr.
Norcross, GA 30093-1877 USA

Contact: Human Resources
Phone: (770) 662-3620
Fax: (770) 662-3696

Manufacturer: Barton Mines Company, LLC., PO Box 591, Lake George, NY 12845
Phone: (518) 709-5462 (7:30 AM - 5:30 PM EST) **FAX:** (518) 798-5728
Emergency Phone: (518) 798-5462 or (518) 251-2296

Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt
Almandite and Pyrope Garnet	1302-62-1	94-99.6%

Trace Impurities: 0.4 - 6% misc. trace minerals consisting of Hornblende, Margnetite, and Feldspar.

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
	TWA	STEL	TWA	STEL	TWA	STEL	IDLH
Almandite and Pyrope Garnet	none estab.	none estab.	10 mg/m ³	none estab.	none estab.	none estab.	none estab.

Section 3 - Hazards Identification

☆☆☆☆☆ **Emergency Overview** ☆☆☆☆☆

HMIS
H 1
F 0
R 0
PPE†
†Sec. 8

Potential Health Effects

Primary Entry Routes: Inhalation, Skin contact

Target Organs: May cause irritation to eyes or nasal tract

Acute Effects

Inhalation: Dust may cause irritation to nasal and respiratory tract.

Eye: Dust may cause irritation.

Skin: May cause abrasions.

Ingestion: No known effects, however ingestion is not recommended.

Carcinogenicity: IARC, NTP, and OSHA do not list Garnet as a carcinogen.

Medical Conditions Aggravated by Long-Term Exposure: Chronic respiratory disease may be aggravated by exposure to nuisance dust.

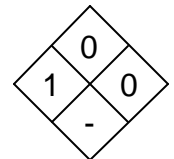
Section 4 - First Aid Measures

Inhalation: Remove to fresh air, if breathing is difficult administer oxygen, obtain medical assistance.
Eye Contact: Flush with large amounts of water, obtain medical assistance.
Skin Contact: Thoroughly wash exposed area with soap and water.
Ingestion: Obtain first aid, get appropriate in-plant, paramedic or community medical support.

Section 5 - Fire-Fighting Measures

Flash Point: Non-flammable solid
Flash Point Method: Not relevant
Burning Rate: Not relevant
LEL: Not relevant
UEL: Not relevant
Flammability Classification: Not relevant
Extinguishing Media: Use appropriate extinguishing media for surrounding fire.
Unusual Fire or Explosion Hazards: None

NFPA



Section 6 - Accidental Release Measures

Spill/Leak Procedures:

Not relevant

Section 7 - Handling and Storage

No special precautions necessary for normal handling and storage of the material.

Section 8 - Exposure Controls / Personal Protection

Engineering Controls:

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA TLVs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Eye Protection: Recommend federally approved safety eyeglasses.

Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator.

Section 9- Physical and Chemical Properties

Physical State: Solid
Appearance and Odor: Red, Pink, Whitish Grains or powders.
Odor Threshold: No odor.
Vapor Pressure: Not relevant
Vapor Density (Air=1): Not relevant
Formula Weight: Not relevant
Density: Relevant
Specific Gravity (H₂O=1, at 4 °C): 3.9-4.1
pH: Not relevant

Water Solubility: Not soluble in water.
Other Solubilities: Not relevant
Boiling Point: Not relevant
Freezing/Melting Point: 1,315° C (2,399°F)
Viscosity: Not Relevant
Refractive Index: 1.77 - 1.79
Surface Tension: Not relevant
% Volatile: Not relevant
Evaporation Rate: Not relevant

Micromeritics Instrument Corp. and Micromeritics Analytical Services

www.micromeritics.com

www.particletesting.com

Surface Area - Porosity - Density - Particle Size, Shape & Count - Catalytic Activity - Surface Energy - Analytical Services

Section 10 - Stability and Reactivity

Stability: Garnet is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization cannot occur.

Chemical Incompatibilities: None known

Conditions to Avoid: Not relevant

Hazardous Decomposition Products: None known

Section 11- Toxicological Information

Not relevant

Section 12 - Ecological Information

Not relevant

Section 13 - Disposal Considerations

Not relevant

Section 14 - Transportation Information

Not relevant

Section 15 - Regulatory Information

Not relevant

Section 16 - Other Information

Prepared By: C. Bills

Revision Notes: N/R

Disclaimer: *The information set forth herein is believed to be accurate but is not warranted with respect to the accuracy of the information or recommendations. Recipients are advised to confirm in advance of need that the information is current and applicable to their circumstances and usage.*