

W. R. GRACE
MATERIAL SAFETY DATA SHEET

Product Name: Microlite Dispersions HTS-XE/XE-20, HTS-SE, XE-Red, XE-Green
MSDS ID Number: Z-01705

MSDS Date: 10/3107

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Microlite Vermiculite Dispersions HTS-XE/XE-20, HTS-SE, XE-Red, XE-Green
MSDS Number: Z-01705
Cancelled MSDS Number: Z-01612
MSDS Date: 10/31/07
Chemical Family Name: Chemically Delaminated Vermiculite (from South Carolina Ore Concentrate Dispersed in water)
Product Use: High Temperature Coating, Filler, Binder
Chemical Formula: Mixture-NA
CAS # (Chemical Abstracts Service Number): Mixture-NA
Manufactured by:
W.R.Grace & Co.-Conn. Grace Canada, Inc.
62 Whittemore Avenue 294 Clements Road West
Cambridge, MA 02140 Ajax, Ontario L1S 3C6

In Case of Emergency Call:

In USA: (617) 876-1400 In Canada: (905) 683-8561

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS#	Percent (max)
Vermiculite dispersion	110638-71-6	10-25
Quartz	14808-60-7	<1.0

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:

Caution!

Causes eye irritation.
May cause respiratory irritation.
Causes digestive tract irritation if ingested.

HMIS Rating:

Health: 1
Flammability: 0
Reactivity: 0
Personal Protective Equipment: B (See Section 8)

Potential Health Effects:

Inhalation: Overexposure is not likely to occur unless specific use generates dust, vapors or mist.

Inhalation may cause slight irritation to respiratory passages.

Eye Contact: Eye contact causes irritation.

Prolonged eye contact can result in tissue damage.

Skin Contact: Acute skin contact is not expected to result in adverse effects.

Prolonged skin contact can result in skin irritation.

Skin Absorption: Not expected to be harmful if absorbed through the skin.

Ingestion: If ingested, causes irritation to the linings of the mouth, esophagus and stomach.

Effects include: Irritation or upset stomach.

SECTION 4 - FIRST AID MEASURES:

Skin Contact: Wash with soap and water.

If discomfort or irritation persists, consult a physician.

Remove contaminated clothing and wash before reuse.

Eye Contact: Flush eyes with water for at least 15 minutes while holding eyelids open.

If discomfort or irritation persists, consult a physician.

Ingestion: Dilute with large quantities of water.

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Consult a physician if symptoms develop.
 Never give anything by mouth to an unconscious person.
Inhalation: If symptoms develop, get fresh air. If symptoms persist, consult a physician.
 If breathing has stopped, give artificial respiration then oxygen if needed.

SECTION 5 - FIRE AND EXPLOSION HAZARD DATA

Flash Point: Not Applicable (Aqueous solution)
Flash Point Method: Not Applicable
Lower Explosion Limit: Not Available
Upper Explosion Limit: Not Available
Auto-ignition Temperature: Not Available

NFPA Rating:

Health: 1
Flammability: 0
Reactivity: 0

Extinguishing Media: Not Applicable. Product will not burn.
Special Fire Fighting Procedures:
 None
 No special procedures specific to this product.
Unusual Fire and Explosion Hazards: None.

SECTION 6 - ACCIDENTAL RELEASE MEASURES:

Spills/Leaks: Use proper personal protective equipment. Collect liquid or absorb liquid with an inert, non combustible material and remove for disposal.

SECTION 7 - HANDLING AND STORAGE

Precautionary Measures:
 Avoid contact with eyes, skin and clothing.
 Do not take internally.
 Practice good personal hygiene to avoid ingestion.
 Use only with adequate ventilation.
 Wash clothing before reuse.
FOR PROFESSIONAL USE ONLY. KEEP OUT OF CHILDREN'S REACH.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT

EXPOSURE GUIDELINES (US)

Ingredient	ACGIH TLV			OSHA PEL			Other
	TWA	STEL	Ceiling	TWA	STEL	Ceiling	
Vermiculite dispersion	-	-	-	-	-	-	-
Quartz	0.025 mg/m ³ TWA (respirable fraction)			((250)/(%SiO ₂ + 5) mppcf TWA (respirable)); ((10)/(%SiO ₂ + 2) mg/m ³ TWA (respirable)); ((30)/(%SiO ₂ + 2) mg/m ³ TWA (total dust))			

Respirable Quartz (Crystalline Silica) exposure may result in lung disease (i.e. silicosis and or lung cancer). However, due to the physical nature of this product, (liquid) exposures are not expected unless product dries, it is abraded and airborne dust is created.

EXPOSURE GUIDELINES (CANADA)

Employers should consult local Provincial regulatory limits for exposure guidelines which may vary locally.

Engineering Controls: Not generally required.

Personal Protective Equipment:

Respiratory Protection: Respiratory protection may be desirable if dust/mist is created in handling and is required at or above the Permissible Exposure Limits (PELs). A dust/mist respirator such as a 3M type P-95 is recommended.

Skin Protection: Gloves are recommended.

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Eye Protection: Safety glasses or goggles should be worn.

Work/Hygienic Practices: Use good personal hygiene practices.

This product is chemically delaminated vermiculite dispersed in 80-95% water. The vermiculite used in this product is a naturally-occurring mineral mined in South Carolina, which can contain tremolite in the ore body. Except for trace amounts, the tremolite, which is predominantly non-fibrous, is removed from the vermiculite during processing.

In an effort to assure this product's high purity, WR-Grace & Co. has retained the services of an outside independent laboratory. This laboratory has analyzed samples using state-of-the-art techniques. No fibrous tremolite has been detected.

Quartz (Crystalline silica) is a naturally occurring mineral that is contained in materials that are mined from the earth's surface such as sand, limestone, clay and gypsum (calcium sulfate). Total quartz is a value representing the combined fraction of large non-respirable sized particles and respirable sized particles (less than ten microns in aerodynamic diameter). It is only the respirable sized fraction of total quartz that is recognized as hazardous by professionals in the field of Occupational Health and my most regulatory agencies.

Due to the physical nature of this product, (liquid) Quartz (Crystalline silica) exposures are not likely to reach exposure limits unless after product dries, it is abraded and airborne dust is created.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Appearance/Odor:	Aqueous dispersion, white, no appreciable odor
Odor Threshold: (ppm)	Not Determined
PH:	6.5-9.0
Vapor Pressure: (Mm Hg)	20 @ 22 deg. C
Vapor Density: (Air = 1)	1.18 @ 22C
Solubility In Water:	Miscible with water
Specific Gravity: (Water = 1)	1.05 - 1.10
Evaporation Rate: (Butyl Acetate = 1)	Unknown
Boiling Point:	>212°F/100°C
Viscosity:	Unknown
Bulk Density: (Pounds/Cubic Foot)(Pcf)	Not Applicable
% Volatiles (70°F) (21°C)	~80% (As Water)

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:	Stable
Conditions To Avoid:	None known for this product.
Hazardous Polymerization:	Will not polymerize.
Hazardous Decomposition Products:	Carbon dioxide, Carbon monoxide and Acrid smoke.

SECTION 11 - TOXICOLOGICAL INFORMATION

Ingredient(No data unless listed.) **CAS Number** **LD50 and LC50**

Carcinogenicity:

Ingredient	IARC Group 1	IARC Group 2A	IARC Group 2B	NTP Known	NTP Suspect	OSHA
Vermiculite Dispersions	No	No	No	No	No	No
Quartz	Yes	No	No	Yes	No	Yes

Mutagenicity: Not applicable.

Teratogenicity: Not applicable.

Reproductive Toxicity: Not applicable.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Fate: No data available for product.

Ecotoxicity: No data available for product.

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SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Procedures:

Consult all regulations (federal, state, provincial, local) or a qualified waste disposal firm when characterizing waste for disposal. According to EPA (40 CFR § 261), waste of this product is not defined as hazardous. Dispose of waste in accordance with all applicable regulations.

According to US EPA (40 CFR § 261.3) waste of this product is not defined as hazardous.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name:	Not Applicable
UN/NA Number:	Not Applicable
Domestic Hazard Class:	Nonhazardous
Surface Freight Classification:	Silicate Solution Class 55
Label/Placard Required:	Not Applicable

SECTION 15 - REGULATORY INFORMATION

REGULATORY CHEMICAL LISTS:

CERCLA (Comprehensive Response Compensation and Liability Act):

(None present unless listed below)

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>	<u>CERCLA RQ</u>
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SARA Title III (Superfund Amendments and Reauthorization Act)

SARA Section 312/Tier I & II Hazard Categories:

Health Immediate (acute)	No
Health Delayed (chronic)	No
Flammable	No
Reactive	No
Pressure	No

302 Reportable Ingredients (Identification Threshold 1%):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>	<u>SARA 302 TPQ</u>
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313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
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National Volatile Organic Compound Emission Standards For Architectural Coatings:

Volatile Organic Content: (gr/L) Not Applicable

WHMIS Classification(s): WHMIS Classification D2 B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR). This MSDS contains all the information required by the CPR.

State Regulatory Information:

California Proposition 65: WARNING! This product contains substances known to the state of California to cause cancer, birth defects or other reproductive harm.

Massachusetts Hazardous Substance List(Identification threshold 0.0001%(1ppm)):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
Quartz	014808-60-7	<1%

New Jersey Hazardous Substance List(Identification threshold (0.1%)):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
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Pennsylvania Hazardous Substance List(Identification threshold 0.01%):

<u>Chemical Name</u>	<u>CAS #</u>	<u>Wt %</u>
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CHEMICAL INVENTORY STATUS:

All chemicals in this product are listed or exempt from listing in the following countries:

US	CANADA		EUROPE	AUSTRALIA	JAPAN	KOREA	PHILIPPINES
TSCA	DSL	NDSL	EINECS/ELINCS	AICS	ENCS	ECL	PICCS
Yes	No	Yes	Yes	Yes	Not Determined	Yes	No

SECTION 16 - OTHER INFORMATION

Non-Hazardous Ingredient Disclosure:

Chemical Name

Water

CAS Number

007732-18-5

Prepared by:

EH&S Department

Approved by:

EH&S Department

Approved Date:

10/31/07

Disclaimer:

"The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection."