

MSDS PREPARED BY: Environmental Health Dept.-Grace Construction Products

W.R.Grace & Co.-Conn.

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SECTION 1 - PRODUCT IDENTIFICATION

Trade Names and Synonyms:

MICROWHITE™ VERMICULITE DISPERSION

(SEE SECTION 12 FOR ADDITIONAL
PRODUCT IDENTIFICATION)

Chemical Names and Family:

Chemically Delaminated Vermiculite
(from South Carolina Ore Concentrate)
Dispersed in Water

Product Use:

High Temperature Coating, Filler, Binder

Formula:

(Li,K) · (Mg,Ca,FeII)₃(Si,Al,
Fe^{III})₄O₁₀(OH)₂ · H₂O

CAS# (Chemical Abstract Service):

MIXTURE-NA

Transportation Hazard Classification

United States DOT	Canadian Regulations
PROPER SHIPPING: Not Applicable	TDG CLASS: Nonhazardous

NAME	HAZARD CLASS:	IDENTIFICATION #:	LABEL(s) REQUIRED:
	Nonhazardous	Not Applicable	Not Applicable

Surface Freight Classification: Silicate Solution Class 55

NPCA-HMIS Hazard Index:

- o Health: 1
- o Flammability: 0
- o Reactivity: 0
- o Personal Protection: B
(See Section 8)

SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

INGREDIENT

(Chemical Name,

%

TOXICITY DATA: LD₅₀ & LC₅₀

CAS#, & Common Name)

By Wt.

(See Section 9 for Exposure Limits)

Not Applicable

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Conditions to Avoid:

None Known

SECTION 6 - HEALTH HAZARD DATA & TOXICOLOGICAL PROPERTIES

Routes of Exposure:Inhalation:

Not expected to occur. If spray mists are generated, inhalation may cause slight irritation to nose and respiratory passages.

Skin and Eye:

May be irritating to EYES upon contact with liquid or spray. Short contact periods with SKIN do not usually cause skin irritation. Repeated and/or prolonged contact can result in skin irritation.

Ingestion:

Not expected to be harmful if swallowed. However, irritation or upset stomach may result due to slight alkaline nature of the product.

Carcinogenicity According to NTP, IARC and OSHA:

Not Applicable (See Section 8 for information regarding Quartz.)

SECTION 7 - EMERGENCY AND FIRST AID PROCEDURES

SKIN:	Wash with plenty of soap and water. If irritation develops, get medical attention. Wash contaminated clothing before reuse.
EYES:	Immediately flush with plenty of water for at least 15 minutes. If irritation develops, have eyes examined and treated by medical personnel.
INGESTION:	Give large quantities of water to drink for dilution effect. If gastrointestinal symptoms develop, consult medical personnel. Never give anything by mouth to an unconscious person.
INHALATION:	Get fresh air. If respiratory irritation or discomfort develops or persists, consult medical personnel.

SECTION 8 - PREVENTIVE & CONTROL MEASURES

Warning Statements:

CAUTION! MAY CAUSE SLIGHT IRRITATION.

- ... MICROWHITE[Vermiculite Dispersions contains Chemically Delaminated Vermiculite and other associated minerals including quartz CAS# 110638-71-6, Water CAS# 7732-18-5, Titanium Dioxide CAS# 13463-67-7 and Proprietary Ingredients (See information in Work Hygienic Practices Section of MSDS for additional information.).
- ... May cause irritation to eyes upon contact.
- ... May cause skin irritation upon prolonged or repeated contact.
- ... May cause slight irritation to nose and respiratory passages if mist is created.
- ... Contact with water-reactive chemicals may result in explosion or hazardous reaction.

Precautionary Measures:

- ... Avoid contact with eyes, skin and clothing.
- ... Avoid breathing mist.
- ... Wash thoroughly after handling.
- ... For professional use only. Keep out of children's reach.

Respiratory Protection:

A NIOSH Type TC-21C-XXX dust respirator is recommended if significant mist or dust is created in handling or processing and should be required if necessary to prevent exposure above the limits specified in Section 9.

Ventilation:

- Local Exhaust: Not generally required, but should be used where available.
- Mechanical: Not generally required, but should be used where available.
- Special: Ovens or furnaces used to dry product should be properly vented.
- Other: Use in areas with adequate general ventilation.

Skin Protection:

Rubber or synthetic gloves are recommended when necessary to prevent prolonged or repeated skin contact.

Eye Protection:

Not generally required. If mists are created or if splashing is likely, goggles should be worn.

Other Protective Clothing or Equipment:

Not Generally Required

SECTION 8 - PREVENTIVE & CONTROL MEASURES CONTINUED

Work/Hygienic Practices:

Use good hygiene practices and observe the precautions noted above.

SUPPLEMENTAL INFORMATION:

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

In an effort to assure that this product is high purity, W. R. Grace & Co. has retained the services of an outside independent laboratory. This laboratory has analyzed samples using state-of-the-art electron microscopy at 10,000x. Using this technique, no fibrous tremolite has been detected.

Quartz: Section 8 of this MSDS indicates that this product can contain quartz (Crystalline Silica). Quartz is a naturally occurring mineral that is commonly contained in materials that are mined from the earth's surface such as sand, limestone, clay and gypsum. Quartz is represented by the combined fractions of non-respirable sized particles and of respirable sized particles (less than ten microns in aerodynamic diameter).

Respirable sized quartz has been tied to more serious health effects (silicosis and lung cancer). Grace has not been able to detect any respirable sized quartz in MICROWHITE Vermiculite Dispersion based on industrial hygiene sampling conducted during spray drying of the material. Due to the high volume of product handled, we believe the highest potential for exposure existed during this process. In addition, this product when sold to our customers is in a liquid state which further decreases the potential for exposure to any respirable sized dusts.

In addition, a wet sieving analysis combined with x-ray diffractometry has been conducted on MICROWHITE Vermiculite Dispersion. Results indicate that respirable quartz is not present above the 0.1% by weight limit established by the Occupational Safety and Health Administration (OSHA) for carcinogens and in fact is below the limits of detection for the analysis. OSHA states that if the hazardous substance is contained in the product below 0.1% by weight and if exposures do not exceed permissible exposure limits then the hazards do not apply.

Results of monitoring and analysis are available upon request.

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SECTION 9 - HAZARDOUS INGREDIENTS EXPOSURE LIMITS - U.S. Only

INGREDIENT:	Exposure Limits		
	OSHA	ACGIH	OTHER
PROPRIETARY INGREDIENTS	None Established	None Established	None Established
CAS# N/A			

RESPIRABLE DUST*		5 mg/m ³ TWA	----	----
CAS#	NA			
TITANIUM DIOXIDE		PEL:	TLV: 10 mg/m ³	None Established
CAS#	13463-67-7	Total 10 mg/m ³	TWA	
		Respirable 5 mg/m ³		
TOTAL DUST*		15 mg/m ³ TWA	TLV/TWA: 10 mg/m ³	None Established
CAS#	NA			

SECTION 10 - SPILL & DISPOSAL INFORMATION - U.S. Only

Observing the precautions noted above, collect liquid or absorb liquid with an inert, noncombustible material and remove for disposal.

According to the US EPA (40 CFR 261.2) waste of this product is not defined as hazardous. Dispose of waste in accordance with all applicable local, state and federal regulations.

SECTION 11 - GOVERNMENT REPORTING INFORMATION - U. S. Only

SARA Title III Reporting InformationTier I & II Hazard Categories:

IMMEDIATE (ACUTE) HEALTH

Contains Extremely Hazardous-SARA III Section 302 Ingredient: NOComments:Contains Toxic Chemical Release-SARA III Section 313 Ingredient: NOComments:Other Government Reporting Requirements:Non-Hazardous Ingredient Disclosure:

Chemically Delaminated Vermiculite, Water, Proprietary Ingredients

SECTION 12 - PRODUCT IDENTIFICATION/TRADENAME ADDENDUM

The information contained in this Material Safety Data Sheet is applicable to the following products:

MICROWHITE™ Vermiculite Dispersion

"THE DATA INCLUDED HEREIN ARE PRESENTED ACCORDING TO W. R. GRACE & CO.-CONN'S PRACTICES CURRENT AT THE TIME OF PREPARATION HEREOF, ARE MADE AVAILABLE SOLELY FOR THE CONSIDERATION, INVESTIGATION AND VERIFICATION OF THE ORIGINAL RECIPIENTS HEREOF AND DO NOT CONSTITUTE A REPRESENTATION OR WARRANTY FOR WHICH GRACE ASSUMES LEGAL RESPONSIBILITY. IT IS THE RESPONSIBILITY OF A RECIPIENT OF THIS 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."