SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: VCX-202, 203, 204, 205, 254, 294, Molten Steel Insulation, Vermiculite Concentrate
MSDS Number: Z-01704
Cancelled MSDS Number: Z-01635
MSDS Date: 10/31/2007
Chemical Family Name: Enoree, South Carolina Vermiculite Concentrate; Magnesium-Aluminosilicate Mineral
Product Use: Various Industrial Uses
Chemical Formula: N/AP
CAS # (Chemical Abstracts Service Number): N/AP
Manufactured by:

W.R.Grace & Co.-Conn.
62 Whittemore Avenue
Cambridge, MA 02140

Grace Canada, Inc.
294 Clements Road West
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)
Quartz	014808-60-7	1-10
Vermiculite	001318-00-9	50-100

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:

Caution!
Causes eye irritation.
Causes respiratory tract irritation.
May cause risk of lung disease (i.e. silicosis and/or lung cancer).

HMIS Rating:

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

Potential Health Effects:

Inhalation: Causes respiratory tract irritation. Effects include: Coughing, shortness of breath, wheezing and reduced pulmonary function from pneumoconiosis (dusty lungs). . Prolonged inhalation of reparable crystalline silica dust can result in lung disease, (i.e. silicosis and/or lung disease).
Eye Contact: Eye contact causes irritation.
Skin Contact: Skin contact is not expected to cause any harmful effects.
Skin Absorption: Not expected to be harmful if absorbed through the skin.
Ingestion: Ingestion not expected to be harmful.
Effects include: No other effects expected unless listed below.

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: Ingestion not expected to be harmful.
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
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
Unusual Fire and Explosion Hazards: None unless noted below.

SECTION 6 - ACCIDENTAL RELEASE MEASURES:

Spills/Leaks: Dampen with water spray or use other methods to clean spill which avoid creating dust. Discard empty packaging promptly. Avoid excessive handling of empty packaging, which may result in unnecessary release of airborne particulates.
Use proper personal protective equipment. Do not flush to sewer or allow to enter waterways.
Keep unnecessary people away.

SECTION 7 - HANDLING AND STORAGE

Precautionary Measures: Avoid contact with eyes, skin and clothing.
Avoid creating and inhaling airborne dust or particulates.
Use only with adequate ventilation.
Wash clothing before reuse.
Provide respiratory protection if needed.
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			
	TWA	STEL	Ceiling	TWA	STEL	Ceiling	Other
Vermiculite	-	-	-	- -	-	-	- -
Quartz	0.025 mg/m3 TWA (respirable fraction)	-	-	((250)/(%SiO2 + 5) mppcf TWA (respirable)); ((10)/(%SiO2 + 2) mg/m3 TWA (respirable)); ((30)/(%SiO2 + 2) mg/m3 TWA (total dust))	-	-	

In addition to the exposure limits referenced above, the following non-specific limits for dust apply to this product; OSHA, 15 mg/m3-TWA or Total Dust and 5 mg/m3-TWA as Respirable Dust, ACGIH, 10 mg/m3-TWA as Total Dust and 3 mg/m3-TWA as Respirable Dust.

EXPOSURE GUIDELINES (CANADA)

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

Engineering Controls: General ventilation may be desirable and should be used where appropriate.

Personal Protective Equipment:

Respiratory Protection: Respiratory protection may be desirable if dust is created in handling and is required at or above the Permissible Exposure Limit (PEL) for nuisance particulates.
Skin Protection: Gloves are recommended.
Eye Protection: Safety glasses or goggles should be worn.
Work/Hygienic Practices: Use good personal hygiene practices.
Quartz (Crystalline silica) 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 (Calcium sulfate). Total quartz is a value usually representing the combined fractions of large, nonrespirable sized particles and of respirable sized particles (less than ten microns in

aerodynamic diameter). It is only the respirable fraction of total quartz that is recognized as hazardous by professionals in the field of Occupational Health and by most regulatory agencies.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid
Appearance/Odor:	Brown to golden brown in color. Flake shaped. No odor.
Odor Threshold: (ppm)	Not Determined
pH:	7.0 (In water)
Vapor Pressure: (Mm Hg)	Unknown
Vapor Density: (Air = 1)	Unknown
Solubility In Water:	Negligible
Specific Gravity: (Water = 1)	Not Available
Evaporation Rate: (Butyl Acetate = 1)	Unknown
Boiling Point:	>212°F/100°C
Viscosity:	Unknown
Bulk Density: (Pounds/Cubic Foot)(Pcf)	40-65
% Volatiles (gr/L): (70°F)(21°C)	Not Applicable

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:	Stable
Conditions To Avoid:	None known for this product.
Hazardous Polymerization:	Will not polymerize.
Hazardous Decomposition Products:	None known for this product.

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
Quartz	Yes	No	No	Yes	No	Yes
Vermiculite	No	No	No	No	No	No

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.

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.

SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name:	Not Applicable
UN/NA Number:	Not Applicable
Domestic Hazard Class:	Nonhazardous
Surface Freight Classification:	Crude Vermiculite Ore
Label/Placard Required:	Not Applicable

SECTION 15 - REGULATORY INFORMATION

REGULATORY CHEMICAL LISTS:

CERCLA (Comprehensive Response Compensation and Liability Act):
(None present unless listed below)

Chemical Name **CAS #** **Wt %** **CERCLA RQ**

SARA Title III (Superfund Amendments and Reauthorization Act)

SARA Section 312/Tier I & II Hazard Categories:

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

302 Reportable Ingredients (Identification Threshold 1%.):

Chemical Name	CAS #	Wt %	SARA 302 TPQ

313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):

Chemical Name	CAS #	Wt %

National Volatile Organic Compound Emission Standards For Architectural Coatings:

Volatile Organic Content: (gr/L) Not Applicable

WHMIS Classification(s): D2 A

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)):

Chemical Name	CAS #	Wt %
Quartz	014808-60-7	1

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

Chemical Name	CAS #	Wt %

Pennsylvania Hazardous Substance List(Identification threshold 0.01%):

Chemical Name	CAS #	Wt %

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	Yes	No	Yes	Yes	Yes	Yes	Yes

SECTION 16 - OTHER INFORMATION

Non-Hazardous Ingredient Disclosure:

Chemical Name	CAS Number

Prepared by: EH&S Department
Approved by: EH&S Department
Approved Date: 10/31/2007

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."