SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Z-106
MSDS Number: Z-01767
Cancelled MSDS Number: Z-01757
MSDS Date: 04/09/09
Chemical Family Name: Cementious Mixture.
Product Use: Fireproofing Product.
Chemical Formula: Blend of Portland Cement, Clay, Cellulose & Chopped Glass Filament.
CAS # (Chemical Abstracts Service Number): Mixture-NA

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)
Bauxite	001318-16-7	25-50
Fuller's earth	008031-18-3	1-10
Chopped continuous glass filament	065997-17-3	1-10
Polystyrene	009003-53-6	1-10
Portland cement	065997-15-1	50-100
Pulp, cellulose	065996-61-4	1-10
Quartz	014808-60-7	< 1

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:
Warning!
Irritating to eyes, skin and respiratory system.
Prolonged exposure may cause alkali burns resulting in damage to skin and eyes.
Prolonged exposure may cause risk of lung disease (i.e. silicosis and/or lung cancer).

HMIS Rating:

Health:	2*
Flammability:	0
Reactivity:	0
Personal Protective Equipment:	E

Potential Health Effects:

Inhalation: Causes respiratory tract irritation.
Exposure may aggravate chronic respiratory conditions such as asthma or broncchitis. Long-term inhalation of dust may increase risk of contracting pneumoconiosis ("dusty lungs") and reduced pulmonary function.
Prolonged inhalation of respirable crystalline silica dust can result in lung disease (i.e. silicosis and/or lung cancer). Symptoms include coughing, shortness of breath, wheezing and reduced pulmonary function.
Eye Contact: Eye contact causes irritation.
Prolonged contact may cause burns due to the alkaline nature of cement.
Direct contact with Monokote spray may cause physical injury.
Skin Contact: Skin contact causes irritation.
Prolonged skin contact causes burns especially if skin or product is wet. This may occur without warning since little heat is sensed.
Prolonged skin contact can result in permanent damage.
May cause sensitization due to Hexavalent chromium contained in Portland Cement.

Exposure to skin may produce "cement" dermatitis which is due to the alkaline and abrasive properties of cement dust.
Skin Absorption: Not expected to be harmful if absorbed through the skin.
Ingestion: If ingested, causes irritation or burns to the linings of the mouth, esophagus and 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.
Get immediate medical attention.
Ingestion: Do not induce vomiting.
Never give anything by mouth to an unconscious person.
If discomfort or irritation persists, consult a physician.
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:	0
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: If spilled, prevent material from entering water systems. Observing the listed Precautionary Measures found in Section 7 of this document. Dry spills should be immediately swept up and placed in a suitable container to prevent further release of material. Slurry spills should be immediately contained (to minimize the extent of the spill) and absorbed with an inert, non-combustible material. Place material in a suitable container to prevent further release.
Use proper personal protective equipment. Do not flush to sewer or allow to enter waterways.

SECTION 7 - HANDLING AND STORAGE

Precautionary Measures:
Avoid contact with eyes, skin and clothing.
Wear skin and eye protection to avoid contact with dust or spray.
Do not take internally.
Practice good personal hygiene to avoid ingestion.
Use only with adequate ventilation.
Wash clothing before reuse.
Equip mixers with dust covers.
Provide respiratory protection if needed.
Wear skin and eye protection to avoid contact with dust or spray.
Post "Slippery When Wet" signs where appropriate.
Use anti-slip surfaces on working platforms.
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	
Bauxite	-	-	-	-	-		-
Fuller's earth	-	-	-	-	-		-
Chopped continuous glass filament	-	-	-	-	-		-
Polystyrene	-	-	-	-	-		-
Portland cement	10 mg/m3 TWA (particulate matter containing no asbestos and < 1% crystalline silica)	-	-	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)	-		-
Pulp, cellulose	-	-	-	-	-		-
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: Exhaust fans may be necessary when mixing in enclosed areas.

Personal Protective Equipment:

Respiratory Protection: Wear approved respiratory protection (generally a N-95 dust mask) to prevent employee exposure from exceeding the limits specified.

Skin Protection: Work gloves or hand creams are recommended to prevent drying of skin.

Eye Protection: At minimum, safety glasses with side shields should be worn where exposure to excessive dust or spray is likely.

Work/Hygienic Practices: Use good personal hygiene practices.

Use bag opening and disposal procedures which minimize dust release. Equip mixers with dust covers to minimize dust released during mixing cycle. After each work shift, workers should shower with soap and water. Work clothing should be changed daily.

All trades should minimize the release of dust during removal of materials by:

- Applying a spray mist of water to wet product, prior to its removal.
- Removing small areas of fireproofing at one time.
- Maintaining a clean worksite.

Prior to welding or cutting, product must be removed from steel surfaces in those immediate areas where exposure to excessive heat, applied either directly or through conduction, from cutting or welding operations is possible.

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.

Clay contained in this product may contain very small particles which might be described as microfibrous (0.02-0.1 Ám diameter and 0.1-2.5 Ám in length with a mean particle length of 0.4 Ám). These particles are not regulated. Studies to date show that these particles are not fibrogenic nor carcinogenic and unlikely to cause pulmonary dysfunction. Portand Cement may contain trace amounts of heavy metals recognized as carcinogens by NTP, OSHA or IARC. This product contains compounds subject to exposure guidelines and/or identified as carcinogens. (See Sections 8 and 11).

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid
Appearance/Odor:	Coarse, free flowing white to black powder, no odor.
Odor Threshold: (ppm)	Not Determined
pH:	11-13 for Portland Cement
Vapor Pressure: (Mm Hg)	Unknown
Vapor Density: (Air = 1)	Unknown
Solubility In Water:	Slight
Specific Gravity: (Water = 1)	Not Available
Evaporation Rate: (Butyl Acetate = 1)	Unknown
Boiling Point:	Not Applicable
Viscosity:	Unknown
Bulk Density: (Pounds/Cubic Foot)(Pcf)	17 - 25
% Volatiles (gr/L): (70°F)(21°C)	Not Available

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:	Stable
Conditions To Avoid:	Polyunsaturated liquids.
Hazardous Polymerization:	Will not polymerize.
Hazardous Decomposition Products:	Carbon dioxide, Carbon monoxide, Monomers (C8H8) and various polymers (C8H8). Temperatures in excess of 4000F from cutting or welding operations may generate Sulfur dioxide. Upon complete combustion, Carbon monoxide and Carbon dioxide are released and trace amounts of nitrogen and asphyxiants.

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
Bauxite	No	No	No	No	No	No
Fuller's earth	No	No	No	No	No	No
Chopped continuous glass filament	No	No	No	No	No	No
Polystyrene	No	No	No	No	No	No
Portland cement	No	No	No	No	No	No
Pulp, cellulose	No	No	No	No	No	No
Quartz	Yes	No	No	No	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.

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. Wastes of this product such as empty bags and excess material are typically 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:	Wall plaster
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) 0

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 0.001%(1ppm)):

Chemical Name	CAS #	Wt %
Quartz	014808-60-7	.6325

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: 04/09/09

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."