

# MATERIAL SAFETY DATA SHEET

## SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS PREPARED BY: Environmental Health Department – Grace Construction Products

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**Trade Names and Synonyms**

(See Section 16 for Additional Product Identification)

**MONOKOTE TYPE Z-106**

**Chemical Names and Family**

Cementitious Mixture

**Product Use**

Fireproofing Product

**Formula**

Blend-Gypsum, Styrene Polymer, Cellulose Portland Cement & Chopped Glass Filament

**CAS# (Chemical Abstract Service):**

MIXTURE – NA

## SECTION 2 - HAZARDOUS INGREDIENT AND MAJOR COMPONENT INFORMATION

(See Section 11 for Complete Chemical Names)

INGREDIENT:	Max.% By Wt.	OSHA	Exposure Limits	
			ACGIH	OTHER
CALCIUM SULFATE CAS# 07778-18-9	18.00	PEL: 15mg/m <sup>3</sup> -TWA as Total Dust 5mg/m <sup>3</sup> TWA as Respirable Dust	TLV: 10mg/m <sup>3</sup>	None Established
CHOP CONT. GLASS FILAM. CAS# 65997-17-3	2.00	-	10mg/m <sup>3</sup>	-
HYDROUS ALUMINUM SILICATE CAS# 08031-18-3	4.00	None Established	None Established	None Established
HYDROUS MAGNESIUM ALUMINUM SILICATE CAS# 12174-11-7	4.00	None Established	None Established	None Established
PORTLAND CEMENT CAS# 65997-15-1	75.00	10mg/m <sup>3</sup> -TWA as Total Dust 5mg/m <sup>3</sup> -TWA as Respirable Dust	10mg/m <sup>3</sup> – TWA	NIOSH: 10mg/m <sup>3</sup> as Total Dust 5mg/m-TWA Respirable Dust
RESPIRABLE DUST* CAS# DUS NA	0.00	5mg/m <sup>3</sup> – TWA	3mg/m <sup>3</sup> – TWA	-
TOTAL DUST* CAS# NA	0.00	15mg/m <sup>3</sup> – TWA	TLV/TWA:10mg/m <sup>3</sup>	None Established

## SECTION 3 – HAZARDS IDENTIFICATION

### Emergency Overview:

#### Warning Statement:

#### WARNING! IRRITANT

- ... Contains Portland Cement CAS# 65997-15-1, Cellulose CAS# 65996-61-4, Gypsum CAS# 7778-18-9, Styrene Polymer CAS# 9003-53-6, Chopped Continuous Glass Filament CAS# 65997-17-3, Hydrous Magnesium Aluminum Silicate CAS# 12174-11-7, Hydrous Aluminum Silicate CAS# 8031-18-3, may contain Aluminum Ore CAS# 1318-16-7.
- ... Inhalation of Portland Cement Dust may cause coughing and sneezing and result in temporary breathing difficulties. May aggravate chronic respiratory conditions such as asthma or bronchitis. Repeated inhalation may cause long-term and/or delayed lung injury.
- ... Cement is irritating to eyes and skin, when wet or dry. May cause alkali burns resulting in damage to skin and eyes.
- ... May cause minor mechanical irritation to eyes. Direct contact with forced spray may injure eyes.
- ... Wet material falling on floors, stairs or other surfaces will cause these surfaces to become slippery.
- ... Read and understand all Health and Safety information on the product label and Material Safety Data Sheet before use.

### NPCA-HMIS HAZARD INDEX:

Health	2
Flammability	0
Reactivity	0
Personal Protection	B, E (See Section 8)

### Potential Health Effects

#### Routes of Exposure:

- Inhalation: Exposure to excessive airborne dust may cause irritation to the respiratory system resulting in coughing and sneezing, shortness of breath and wheezing; excessive exposure may also aggravate chronic respiratory conditions such as asthma or bronchitis.
- Skin and Eye: May cause acute and/or chronic irritation of eyes and skin. Exposure to SKIN may produce "Cement Dermatitis" which is usually due to the alkaline and abrasive properties of cement dust and may involve whole surface areas of the body. Cement may cause an allergic sensitivity. Prolonged contact with skin may cause burns, especially if skin or product is wet, and without much warning since little heat is sensed.
- Ingestion: EYE contact may result in inflammation or burns. Direct contact with the force of the spray may also cause physical injury. If swallowed, may cause irritation or burns to the linings of the mouth, esophagus and stomach.

### Carcinogenicity Information:

OSHA	- Not applicable
IARC	- Not applicable
NTP	- Not applicable

#### SECTION 4 – FIRST AID MEASURES

EYES	In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids apart. Consult physician.
SKIN	In case of skin contact, flush immediately with plenty of water and dry thoroughly. If irritation persists, consult a physician.
INHALATION	If inhaled, get fresh air immediately. If symptoms occur and persist, consult a physician.
INGESTION	If swallowed, call a doctor or poison control center immediately. The decision to induce vomiting should be made by a physician. Never give anything by mouth to an unconscious person.

#### SECTION 5 - FIRE FIGHTING MEASURES

Flash Point	: Not applicable	Flammable Limits:	
Method Used	: Not applicable	LEL - N/A	UEL - N/A
N.F.P.A. Rating	: Not applicable		
Extinguishing Media	: Not applicable		
Special Fire Fighting Procedures	: None		
Unusual Fire and Explosion Hazards	: None known		

#### SECTION 6 – ACCIDENTAL RELEASE MEASURES

If spilled, prevent material from entering water systems. Observing the listed Precautionary Measures:

- Dry spills should be immediately swept up and placed in a suitable container to prevent further release of material.
- Liquid/liquid 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.

#### SECTION 7 – HANDLING STORAGE AND INFORMATION

Precautionary Measures:

- Avoid creating dust.
- Equip mixer with dust covers.
- Provide ventilation and/or respiratory protection.
- Avoid contact with skin and eyes.
- 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 CHILDREN'S REACH.

#### SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation:

Local Exhaust	: Exhaust fans may be necessary when mixing in enclosed areas.
Mechanical	: Exhaust fans may be necessary when mixing in enclosed areas.
Special	: Not applicable
Others	: Not applicable

Respiratory Protection : Wear NIOSH-approved respiratory protection to prevent employee exposures from exceeding the limits specified in Section 2.

Skin Protection : Work gloves, barrier creams and boots are recommended to prevent irritation or drying of skin.

Eye Protection : Proper eye protection is required. At a minimum, safety glasses with side shields should be worn where exposures to excessive dust or spray are likely.

Other Protective Clothing or Equipment: Normal work clothes

Work/Hygienic Practices:

Use bag opening and disposal procedures which minimize dust release. Equip mixers with dust covers.

Prior to welding or cutting, **MONOKOTE** 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 operation is possible.

Remove fireproofing materials in a manner so as to minimize the creation of dust. All trades must exercise work practices which avoid creating dust. This may be accomplished by:

- Wetting fireproofing materials using water, prior to its removal.
- Removing small areas of fireproofing at one time.
- Maintaining a clean worksite.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

Boiling Point	: Not applicable	Specific Gravity (H <sub>2</sub> O=1)	: Not applicable
Vapor Pressure (mm Hg.)	: Not applicable	% Volatiles	: Not applicable
Vapor Density (AIR = 1)	: Not applicable	Evaporation Rate (Butyl Acetate = 1)	: Not applicable
Solubility in Water	: Slight	pH	: 11-13 for Portland Cement
Bulk Density (#/cu.ft)	: 14-17		
Appearance and Odor	Coarse, free flowing grey powder		
Odor Threshold	: Not applicable		

**SECTION 10 – STABILITY AND REACTIVITY**

Stable under normal conditions (yes or no): YES

Conditions or Materials to avoid (which may react or cause instability):

Prior to welding or cutting, **MONOKOTE** must be removed from steel surfaces in those immediate areas where direct exposure to excessive heat, applied directly or through conduction, from cutting or welding operations is possible. (See Section 8 for suggested removal practices).

Hazardous Decomposition or Byproducts:

As a result of incomplete combustion, Monomers, various Polymers may be given off. Temperatures in excess of 4000°F may generate Sulfur Dioxide (SO<sub>2</sub>). Upon complete combustion, Carbon Monoxide and Carbon Dioxide are released.

Hazardous Polymerization : Will not occur

:

Conditions to Avoid : Not applicable

**SECTION 11 – TOXICOLOGICAL INFORMATION**

<b>INGREDIENT</b> (Chemical Name, CAS#, & Common Name)	<b>TOXICITY DATA</b> (See Section 2 for Exposure Limits)	<b>LD<sub>50</sub>, LC<sub>50</sub> etc.</b>
<b>Portland Cement</b> CAS# 65997-15-1	No data available	
<b>Chopped Continuous Glass Filament</b> CAS# 65997-17-3	No data available	
<b>Gypsum (Calcium Sulfate)</b> CAS# 7778-18-9	No data available	

**SECTION 12 – ECOLOGICAL INFORMATION**

**Aquatic toxicity:** No further relevant information available.

**Persistence and degradability** No further relevant information available.

**Behavior in environmental systems:**

**Bioaccumulative potential** No further relevant information available.

**Additional ecological information:**

**General notes:**

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

Slightly hazardous for water

Do not allow product to reach ground water, water course or sewage system.

**SECTION 13 – DISPOSAL CONSIDERATIONS**

Typical wastes of this product such as empty bags and excess material are not defined as hazardous according to the US EPA (40 CFR 261.3)

Consult all regulations or qualified waste disposal firm when characterizing waste for disposal. Dispose of waste in accordance with all applicable regulations.

**SECTION 14 – TRANSPORT INFORMATION**

<b>Transport hazard class(es)</b> DOT, ADR, ADN, IMDG, IATA Class	Not applicable
<b>Packing group</b> DOT, ADR, IMDG, IATA	Not applicable
<b>Environmental hazards:</b> Marine pollutant:	No
<b>Special precautions for user</b>	Not applicable
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable
<b>Transport/Additional information:</b> DOT Remarks: Note:	Not Regulated Not Regulated for Canada TDG

**SECTION 15 – REGULATORY INFORMATION**

(Not meant to be all inclusive selected regulations represented)

**SARA TITLE III REPORTING INFORMATION**

Tier I & II HAZARD CATEGORIES

Contains Extremely Hazardous – SARA III Section 302 Ingredient  
Comments:  
Contains Toxic Chemical Release – SARA III Section 313 Ingredient  
Comments:

**DELAYED (CHRONIC) HEALTH**  
**IMMEDIATE (ACUTE) HEALTH**  
NO  
NO

## SECTION 16 – OTHER INFORMATION

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

### MONOKOTE TYPE Z-106

THE DATA INCLUDED HEREIN ARE PRESENTED IN ACCORDANCE WITH VARIOUS ENVIRONMENT, HEALTH AND SAFETY REGULATIONS. 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.