

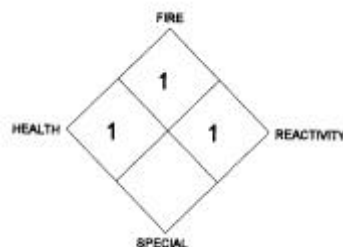


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## MATERIAL SAFETY DATA SHEET

### NFPA HAZARD RATING

- 4 EXTREME
- 3 HIGH
- 2 MODERATE
- 1 SLIGHT
- 0 INSIGNIFICANT



PAGE: 1 OF 3

**PRODUCT NAME: GEM**

DATE PREPARED: 11/6/90

REVISED: 11/10/97

MSDS: 768D

### I. INGREDIENTS

INGREDIENTS	CAS #	OSHA PEL	ACGIH TLV	%
HYDROUS ALUMINUM SILICATES	1302-78-9	*	*	
CARBON	64743-05-1	10MG/M <sup>3</sup>	10MG/M <sup>3</sup>	
HYDRAULIC CEMENTS	65997-15-1	50MPPCF (TWA)	10MG/M <sup>3</sup> (TWA)	
* HYDROUS ALUMINUM SILICATES MAY CONTAIN TRACE AMOUNTS OF THE FOLLOWING HAZARDOUS INGREDIENTS:				
MINERAL DUSTS:				
RESPIRABLE CRYSTALLINE QUARTZ <sup>1</sup>	14808-60-7	1.5MG/M <sup>3</sup>	0.1MG/M <sup>3</sup>	TR
TOTAL MASS		4MG/M <sup>3</sup>	0.3MG/M <sup>3</sup>	TR
<sup>1</sup> THIS PRODUCT CONTAINS A SMALL AMOUNT OF CRYSTALLINE SILICA WHICH MAY CAUSE DELAYED RESPIRATORY DISEASE IF INHALED OVER A PROLONGED PERIOD OF TIME. AVOID BREATHING DUST. USE NIOSH/MSHA APPROVED RESPIRATOR WHERE FOR CRYSTALLINE SILICA MAY BE EXCEEDED.				
CARBON MAY CONTAIN THE FOLLOWING HAZARDOUS INGREDIENTS:				
DEDUSTING OIL	8012-95-1	5MG/M <sup>3A</sup>	5MG/M <sup>3A</sup>	<0.4
SULFUR	7704-34-9	N/A <sup>B</sup>	N/A <sup>B</sup>	@1
<sup>A</sup> MINERAL OIL MIST STANDARD				
<sup>B</sup> NUISANCE DUST STANDARD IS APPLICABLE; SULFUR IS BOUND IN THE CARBON STRUCTURES				

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**2. PHYSICAL/CHEMICAL CHARACTERISTICS**

BOILING POINT: N/A  
VAPOR PRESSURE: N/A  
VAPOR DENSITY: N/A  
SOLUBILITY IN WATER: Slight  
SPECIFIC GRAVITY(H<sub>2</sub>O=1): 0.9  
MELTING POINT: 3500°C  
EVAPORATION RATE (BUTYL ACETATE=1): N/A  
APPEARANCE AND ODOR: Gray Odorless Powder

**3. FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT (METHOD USED): N/A  
FLAMMABLE LIMITS: LEL - N/A UEL - N/A  
EXTINGUISHING MEDIA: Chemical Extinguisher  
SPECIAL FIRE FIGHTING PROCEDURES: Normal fog or nozzle jet application  
UNUSUAL FIRE & EXPLOSION HAZARDS: Carbon dust is generally considered non-explosive. However, it may weakly contribute if another explosive gas or dust initiates the explosive event.

**4. REACTIVITY DATA**

STABILITY: Stable  
CONDITIONS TO AVOID: Keep dry until used.  
INCOMPATIBILITY (MATERIALS TO AVOID): None  
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: None  
HAZARDOUS POLYMERIZATION: Will not occur.

**5. HEALTH HAZARD DATA**

ROUTES OF ENTRY: INHALATION AND INGESTION  
HEALTH HAZARDS: ACUTE: Dust can irritate the eyes and upper respiratory tract. Wet cement can dry the skin and cause alkali burns. CHRONIC: Dust can cause inflammation of the lining tissue of the nose and inflammation of the eyes. Hypersensitive individuals may develop an allergic dermatitis.  
CARCINOGENICITY: NTP - no IARC MONOGRAPHS - Yes\* OSHA REGULATED - No  
\* IARC MONOGRAPHS ON THE EVALUATION OF THE CARCINOGENIC RISK OF CHEMICALS TO HUMANS (VOLUME 42, 1987) CONCLUDES THAT THERE IS "LIMITED EVIDENCE" OF THE CARCINOGENICITY OF CRYSTALLINE SILICA TO HUMANS. IARC CLASSIFICATION 2A.

SIGNS/SYMPTOMS OF EXPOSURE: Eye, skin and upper respiratory system irritation  
INGESTION: When this substance has been swallowed, give the person large quantities of water immediately. After the water has been swallowed, try to get the person to vomit. Do not induce vomiting in an unconscious person. Get medical attention immediately. A5X

**M A T E R I A L   S A F E T Y   D A T A   S H E E T**

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**6. PRECAUTIONS FOR SAFE HANDLING AND USE**

ACTION TO TAKE FOR SPILLS/LEAKS: Clean up dust by normal housekeeping methods. Vacuum over sweeping is recommended.

WASTE DISPOSAL METHOD: Dispose of in accordance to local, state, and federal regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: None

**7. CONTROL MEASURES**

RESPIRATORY PROTECTION: NIOSH approved dust mask recommended.

VENTILATION: LOCAL EXHAUST - Remove airborne dust.

PROTECTIVE GLOVES: Use Rubber type gloves.

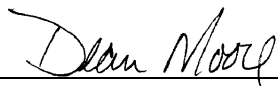
EYE PROTECTION: Goggles, safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Use gloves, boots, and clothing to protect skin from prolonged contact with wet cement.

WORK/HYGIENIC PRACTICES: No eating, drinking or smoking while product is in use. Wash exposed skin after use.

This material safety data sheet is provided solely for your information, consideration, and investigation. Any use of this data and information must be determined by the user to be in compliance with applicable federal, state, and local laws and regulations.

Prepared By



DEAN MOORE

Title PRODUCT ENGINEER

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