



# MATERIAL SAFETY DATA SHEET

## SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT:** M-Bond GA-100 Cement

November 29, 2005

Vishay Micro-Measurements  
Post Office Box 27777  
Raleigh, NC 27611

**MSDS # MGM018GH**

919-365-3800

CHEMTREC 1-800-424-9300 (U.S.)  
703-527-3887 (Outside U.S.)

NOTE: CHEMTREC numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

## SECTION 2: HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

CAS NUMBER	CHEMICAL IDENTITY	%
14808-60-7	Crystalline Silica (Quartz)	38.0
7732-18-5	Distilled Water	26.4
7631-86-9	Silicon Dioxide	19.0
13530-50-2	Monoaluminum Phosphate Trihydrate	13.1
1333-82-0	Chromium Trioxide	2.9
7664-38-2	Phosphoric Acid	0.5
9000-65-1	Gum Tragacanth	0.1

## SECTION 3: HEALTH HAZARD DATA

### Routes of Entry:

**Inhalation:** YES **Skin:** Accidental **Ingestion:** Accidental

**Health Hazards (Acute and Chronic):** Ingestion may cause liver and/or kidney damage. Repeated or prolonged skin contact may cause sensitization.

**Carcinogenicity:** NTP: Not known  
IARC Monographs: See Note  
OSHA Regulated: Not known

NOTE: Chromium trioxide is listed by International Agency for Research on Cancer (IARC) as a Class 3 carcinogen. This category is used most commonly for agents, mixtures and exposure circumstances for which the evidence of carcinogenicity is inadequate in humans and inadequate or limited in experimental animals.

NOTE: Crystalline Silica (quartz) inhaled from occupational sources is classified as carcinogenic to humans.

**Signs and Symptoms of Exposure:** Produces chemical burns on all tissue types.

**INHALATION:** May be irritating to mucous membranes.

**EYE CONTACT:** Contact with eyes may cause severe irritation and possible burns.

**SKIN CONTACT:** May cause irritation with burning pain, itching and redness.

**INGESTION:** May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns.

**Conditions Generally Aggravated by Exposure:** None known.

#### SECTION 4: EMERGENCY AND FIRST AID PROCEDURES

**INHALATION:** Remove from exposure to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**EYE CONTACT:** Flush with plenty of water for 15 minutes while lifting upper and lower eyelids. Seek immediate medical aid.

**SKIN CONTACT:** Rinse area with large amounts of water for at least 15 minutes. Remove contaminated clothing and shoes.

**INGESTION:** Induce vomiting only if instructed to do so by medical personnel. If victim is conscious, give milk and water. SEEK MEDICAL AID.

#### SECTION 5: FIRE AND EXPLOSION HAZARD DATA

**Flash Point (Method Used):** NONE

**Flammable limits:** LEL: NONE UEL: NONE

**Extinguishing Media:** Does not support combustion.

**Special Firefighting Procedures:** Firefighters should wear proper protective equipment and self-contained, positive pressure breathing apparatus with full facepiece. Remove exposed containers from fire area if it can be done without risk. Use water to keep fire exposed containers cool.

**Unusual Fire and Explosion Hazards:** Containers exposed to fire may rupture.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Steps to be taken if material is released or spilled:** Dike spill. Neutralize with mild caustic. Absorb neutralized solution with absorbent material such as sand or vermiculite. Flush area with copious amounts of water to dilute residuals.

## SECTION 7: EXPOSURE CONTROLS -- PERSONAL PROTECTION

**Respiratory Protection:** Use local and general exhaust to keep below TLV requirements. For emergency, use full-face, self-contained breathing apparatus.

### Ventilation:

**Local Exhaust:** Keep below TLV  
**Mechanical:** Keep below TLV  
**Special:** N/A  
**Other:** N/A

**Protective Gloves:** Neoprene gloves are recommended.

**Eye Protection:** Full faceshield is recommended.

**Other Protective Clothing or Equipment:** Neoprene over-clothing is recommended to prevent contact. Access to safety shower and eyewash station should be available in local area.

**Work / Hygienic Practices:** Wash hands thoroughly after using and before eating, drinking or smoking.

## SECTION 8: HANDLING AND STORAGE

**Precautions to be taken in handling and storing:** Store below 80°F (27°C). Do not allow material to dry out. Add water as needed. Keep containers tightly closed when not in use.

**Other Precautions:** Very corrosive. Avoid contact. Use in well ventilated area only.

<b>SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES</b>
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<b>Boiling Point:</b>	212°F (100°C)
<b>Vapor Pressure (mmHg):</b>	<1
<b>Vapor Density (Air = 1):</b>	>1
<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	N/A
<b>Melting Point:</b>	N/A
<b>Evaporation Rate (BuAc = 1):</b>	Slight
<b>Volatile Organic Compounds:</b>	<10 g/liter
<b>Solubility in Water:</b>	Slight

**Appearance and Odor:** Material separates into dark amber liquid and yellow paste; acidic odor.

<b>SECTION 10: STABILITY AND REACTIVITY DATA</b>
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**Stability:** Stable.

**Conditions to Avoid:** Heat, strong reducing agents.

**Incompatibility (Materials to Avoid):** Combustible materials, strong reducing agents.

**Hazardous Decomposition or By-products:** Oxides of carbon, silicon, and possibly chromium.

**Hazardous Polymerization:** Will not occur.

<b>SECTION 11: TOXICOLOGICAL INFORMATION</b>
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Crystalline Silica (Quartz)

OSHA PEL:	0.1 mg/m <sup>3</sup> (Respirable dust)
ACGIH TLV:	0.1 mg/m <sup>3</sup> (Respirable dust)
OTHER:	Not Known

Silicon Dioxide

OSHA PEL:	0.1 mg/m <sup>3</sup> (Respirable dust) 0.3 mg/m <sup>3</sup> (Total dust)
ACGIH TLV:	0.1 mg/m <sup>3</sup> (Respirable dust) 0.3 mg/m <sup>3</sup> (Total dust)
OTHER:	Not Known

Monoaluminum Phosphate Trihydrate

OSHA PEL:	Not established
ACGIH TLV:	Not established
OTHER:	Not established

## Chromium Trioxide

OSHA PEL:	0.5 mg/m <sup>3</sup>
ACGIH TLV:	0.5 mg/m <sup>3</sup>
OTHER:	Not Known

## Phosphoric Acid

OSHA PEL:	1 mg/m <sup>3</sup>
ACGIH PEL:	1 mg/m <sup>3</sup>
OTHER:	Not known

## Gum Tragacanth

OSHA PEL:	Not known
ACGIH TLV:	Not known
OTHER:	Not known

<b>SECTION 12: DISPOSAL CONSIDERATIONS</b>
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**Waste Disposal Method:** Incinerate as a solid waste according to local, state, and federal regulations.

<b>SECTION 13: TRANSPORTATION INFORMATION</b>
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SHIPPING NAME	CLASS	PACKING GROUP	UN NUMBER
Corrosive Liquids, N.O.S. (Aluminum Phosphate Solution)	8	II	1760

<b>SECTION 14: REGULATORY INFORMATION</b>
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**SECTION 313 SUPPLIER NOTIFICATION:**

This product contains a toxic chemical or chemicals (as listed below) subject to the reporting requirements of Section 313 Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372.

CAS NUMBER	CHEMICAL NAME	% BY WEIGHT
7664-38-2	Phosphoric Acid	0.5

**TSCA NOTIFICATION:**

All components of this product are listed in the Toxic Substance Control Act Chemical Substance Inventory (TSCA).

**SECTION 15: OTHER INFORMATION**

To the best of our knowledge, the information provided above meets the requirements of the United States Occupational Safety and Health Act and regulations established under 29 CFR 1910.1200 (g)(2)(c)(1)-(4) for a mixture of hazardous chemicals which has not been tested as a whole. The data provided on this Material Safety Data Sheet is from manufacturers of the original components. Vishay Micro-Measurements specifically disclaims any and all form of liability and/or responsibility for the application of this product.