

MATERIAL SAFETY DATA SHEET

SUPERMAX MZ

Health Hazard : 2-Moderate
Flammability Hazard : 0-Minimal
Reactivity Hazard : 0-Minimal
Personal Protection : E-Glasses, gloves,
dust mask

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Print Date : June 16, 2009
Revised : June 16, 2009
MSDS No : SUPERMAXMZ

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : SUPERMAX MZ
General Use : A low cement refractory castable for placement by vibration casting.

MANUFACTURER:

Pryor Giggey Co.
138 Sears Road
Chehalis, WA 98532

TELEPHONE NUMBERS:

M - F, 8:00 a.m. - 5:00 p.m. PT
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Contact Person : Tim Austel

2. COMPOSITION/HAZARDOUS INGREDIENTS

<u>Ingredient</u>	<u>CAS Registry #</u>	<u>Percent</u>	<u>Exposure Limits</u>
Alumina	1344-28-1	<7	OSHA PEL = 15mg/m ³ total, 5mg/m ³ resp. dust; ACGIH TLV = 10mg/m ³ total dust. See note 1.
Alumina silicate	1302-93-8	45-60	OSHA PEL = 15mg/m ³ total dust; 5mg/m ³ respirable dust. ACGIH TLV = 2mg/m ³ resp. dust.
Cement, Calcium Aluminate	65997-16-2	<5	OSHA PEL = 15mg/m ³ total, 5mg/m ³ resp. dust; ACGIH TLV = 10mg/m ³ total dust. See note 1.
Cristobalite	14464-46-1	<1	OSHA PEL = 1/2[(10mg/m ³)/(%Silica+2)] resp. dust; ACGIH TLV = 0.025mg/m ³ respirable dust.
Quartz	14808-60-7	<3	OSHA PEL = [(10mg/m ³)/(%Silica+2)] resp. dust; ACGIH TLV = 0.025mg/m ³ respirable dust.
Silica Fume, Amorphous	69012-64-2	<10	OSHA PEL = 15mg/m ³ total dust; ACGIH TLV = 2mg/m ³ respirable dust.
Silica, Amorphous (Glass)	7631-86-9	5-20	OSHA PEL = 80mg/m ³ /% silica ACGIH TLV = 3 mg/m ³ respirable dust.
Zircon	14940-68-2	5-20	OSHA PEL = 5mg/m ³ resp. dust as Zr; ACGIH TLV = 5mg/m ³ resp. dust as Zr.

Some of the above ingredients are integral mineralogical constituents contained within the matrix of the raw materials.
Note 1: ACGIH TLV for total dust with no asbestos and less than one percent crystalline silica.

3. HAZARDS IDENTIFICATION

Emergency Overview : This is a gray mixture of granular materials that may contain fine plastic fibers.
It has no detectable odor and poses no immediate health or environmental hazard.

Potential Health Effects:

Primary Entry Route(s) : Inhalation
Target Organs : Respiratory System

Acute Effects:

Eyes : Solids or dust may cause irritation or scratch surface of eye.
Skin : May cause irritation to skin on prolonged contact.
Ingestion : Believed to present very little hazard if swallowed.
Inhalation : May cause upper respiratory irritation.

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3. HAZARDS IDENTIFICATION (cont.)

Chronic Effects : Dust generated from dry material may contain crystalline silica. IARC Monograph Volume 68, 1997 concludes that, "There is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the form of quartz or cristobalite from occupational sources." IARC classification - Group 1.
NTP has included crystalline silica in its list of substances that are "reasonably anticipated to be carcinogens."

Signs and Symptoms : Cough, shortness of breath.

Medical Conditions
Aggravated by Exposure : Pre-existing chronic lung conditions such as, but not limited to, bronchitis, emphysema, and asthma. Exposure to crystalline silica in conjunction with other carcinogens (such as cigarette smoking) may have a synergistic (compounding) effect.

4. FIRST AID MEASURES

Eyes : Flush eyes thoroughly with water for at least 15 minutes. Consult physician.

Skin : Wash with a mild soap and water.

Ingestion : No adverse effects anticipated by swallowing.

Inhalation : Remove to fresh air. If not breathing, give artificial respiration. Get immediate medical attention.

5. FIRE FIGHTING MEASURES

Fire and Explosion Hazards . . : SUPERMAX MZ is non-combustible and will not contribute to the intensity of a fire.

Flash Point and Method : Not Applicable.

Flammable Limits : Not Applicable.

Autoignition Temperature . . . : Not Applicable.

Extinguishing Media : As appropriate for the surrounding fire.

Fire Fighting Equipment : As appropriate for the surrounding fire.

6. ACCIDENTAL RELEASE MEASURES

Spill/Leak procedures : Reuse any spilled material where possible. Carefully scoop material into a suitable container. If conditions warrant, clean-up personnel should wear approved respiratory protection, gloves, and goggles to prevent irritation from contact and/or inhalation. Spilled material poses no threat to the environment. See section 12.

7. HANDLING AND STORAGE

Handling : SUPERMAX MZ requires no special handling other than adherence to good industrial practices.

Storage : Contact with water will cause material to set-up and become unusable.

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8. EXPOSURE CONTROL/PERSONAL PROTECTION

Ventilation : Provide adequate general ventilation and local ventilation to control mist and/or dust levels below the TLV.
Personal Protective Equipment
Eyes : Goggles
Skin : Long sleeve clothing
Inhalation : Dust mask
Other : Gloves

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point : Not Applicable.
Vapor Pressure : Not Applicable.
Vapor Density : Not Applicable.
Solubility in Water : Slight
Specific Gravity (water=1) . . : 2.6
Melting Point : >3100°F
pH : 11.5 (10% Aqueous Slurry)

10. STABILITY AND REACTIVITY

Chemical Stability : SUPERMAX MZ is stable under normal ambient and anticipated conditions of temperature and pressure.
Incompatible Materials and
Conditions to Avoid : None.
Hazardous Polymerization . . : Will not occur.
Hazardous Decomposition . . : Will not occur.

11. TOXICOLOGICAL INFORMATION

There are no known health effects that can arise from the as-manufactured SUPERMAX MZ. There is no evidence to suggest that SUPERMAX MZ itself is carcinogenic.

12. ECOLOGICAL INFORMATION

SUPERMAX MZ is virtually insoluble and immobile and poses no threat to the environment if accidentally released on land or into water.

13. DISPOSAL CONSIDERATIONS

SUPERMAX MZ as-manufactured is not considered a hazardous waste. However, before destruction of the refractory lining, customers are advised to evaluate any changes to the product that may occur by the introduction of substances or operating conditions outside the control of the vendor.

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14. TRANSPORT INFORMATION

SUPERMAX MZ is not a DOT Hazardous Material and contains no DOT Hazardous components.

15. REGULATORY INFORMATION

Section 2 lists OSHA exposure limits for chemicals considered by OSHA to be air contaminants.

16. OTHER INFORMATION

Although reasonable care has been taken in the preparation of the information contained herein, Pryor Giggey Co. extends no warranties, makes no representations and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use.

WARNING: This product may contain respirable crystalline silica; a chemical known to the State of California to cause cancer.