

MATERIAL SAFETY DATA SHEET

SECTION I - GENERAL INFORMATION

MANUFACTURER'S NAME: Umaco, Inc.
MANUFACTURER'S ADDRESS: 60 Rear Newhall Street
Lowell, MA 01852
EMERGENCY PHONE NUMBER (Chemtrec): 800-424-9300
INFORMATIONAL PHONE (Umaco): 978-453-8881
PRODUCT NAME: Concrete Mix, Mortar Mix, Sand Mix
FORMULA: Mixture of Portland or blended cements and concrete additives.
DATE: February 1, 2011

SECTION II - HAZARDOUS COMPONENTS

<u>COMPONENT</u>	<u>CAS #</u>	<u>PEL (OSHA)</u>	<u>TLV (ACGIH)</u>
Concrete Aggregates, Sand, Gravel	14808-60-7	<u>10mg/M³</u> %SiO ₂₊₂	0.05 (Respirable)
Portland or Masonry Cement	65997-15-1	5	5
Fly Ash 7631-86-9	1344-28-1 1309-37-1 1305-78-8	<u>80mg/M³</u> %SiO ₂	10

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: >2700°F
MELTING POINT: >2700°F
VAPOR PRESSURE: None
VAPOR DENSITY: None
SOLUBILITY IN WATER: Slight (0.01 to 1%)
SPECIFIC GRAVITY: 2.6 to 3.5
EVAPORATION RATE: None
APPEARANCE AND ODOR: Gray, plastic, flowable, granular mud and odorless.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Non-flammable, non-combustible or explosive
Use extinguishing media suitable to combat surrounding fire.

SECTION V - REACTIVITY DATA

STABILITY: Stable
INCOMPATIBILITY (MATERIALS TO AVOID): Contact of silica with powerful oxidizing agents such as fluorine, chlorine trifluoride, manganese trioxide, oxygen difluoride, may cause fires.
HAZARDOUS DECOMPOSITION PRODUCTS or BYPRODUCTS: Silica will dissolve in Hydrofluoric Acid and produce a corrosive gas - silicon tetrafluoride
HAZARDOUS POLYMERIZATION: Will not occur.
CONDITIONS TO AVOID: Keep dry until used to preserve product integrity.

SECTION VI - HEALTH HAZARD DATA

PRIMARY ROUTES OF ENTRY: **INHALATION:** Yes
SKIN ABSORPTION: Yes
INGESTION: Yes

CARCINOGENICITY: **NTP:** Known carcinogen **OSHA:** Not listed as a carcinogen
IARC MONOGRAPH: Group I Carcinogen
California Proposition 65: Known carcinogen

ACUTE EXPOSURE: Product becomes alkaline when exposed to moisture. Exposure can dry the skin, cause alkali burns and effect the mucous membranes. Dust can irritate the eyes and upper respiratory system. Toxic effects noted in animals include, for acute exposures, alveolar damage with pulmonary edema.

CHRONIC EXPOSURE: Dust can cause inflammation of the lining tissue of the interior of the nose and inflammation of the cornea. Hypersensitive individuals may develop an allergic dermatitis. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring of the lungs and possibly cancer. There is evidence that exposure to respirable silica or the disease silicosis is associated with an increased incidence of Scleroderma, tuberculosis and kidney disorders.

NTP: The National Toxicology Program, in its "Ninth Report on Carcinogens" (released May 15, 2000) concluded that "Respirable crystalline silica (RCS), primarily quartz dusts occurring in industrial and occupational settings, is *known to be a human carcinogen*, based on sufficient evidence of carcinogenicity from studies in humans indicating a causal relationship between exposure to RCS and increased lung cancer rates in workers exposed to crystalline silica dust (reviewed in IAC, 1997; Brown *et al.*, 1997; Hind *et al.*, 1997)

IARC: The International Agency for Research on Cancer ("IARC") concluded that there was "*sufficient evidence* in humans for the carcinogenicity of crystalline silica in the forms of quartz or cristobalite from occupational sources", and that there is "*sufficient evidence* in experimental animals for the carcinogenicity of quartz or cristobalite." The overall IARC evaluation was that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is *carcinogenic to humans* (Group I)." The IARC evaluation noted that "carcinogenicity was not detected in all industrial circumstances or studies. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." For further information on the IARC evaluation, see IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 68, "Silica, Some Silicates..." (1997)

SIGNS AND SYMPTOMS OF EXPOSURE: Symptoms of excessive exposure to the dust include shortness of breath and reduced pulmonary function. Excessive exposure to skin and eyes especially when mixed with water can cause caustic burns as severe as third degree.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Individuals with sensitive skin and with pulmonary and/or respiratory disease, including, but not limited to, asthma and bronchitis, or subject to eye irritation, should be precluded from exposure.

EMERGENCY FIRST AID PROCEDURES: Irrigate (flood) eyes immediately and repeatedly with clean water. Wash exposed skin areas with soap and water. If irritation or inflammation occurs seek prompt medical attention. For gross inhalation, remove person immediately to fresh air, give artificial respiration as needed. Get prompt medical attention.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

SPILLS: If spilled, use dustless methods (vacuum) and place into closable container for disposal or use if not contaminated or wet. Use adequate ventilation.

WASTE DISPOSAL METHOD: the packaging and material may be land filled; however, material should be covered to minimize generation of airborne dust. This product is not classified as a hazardous waste under RCRA or CERCLA.

SECTION VIII - CONTROL MEASURES

INHALATION: DO NOT BREATHE DUST. Where exposure limit is exceeded, the use of an OSHA, MSHA or NIOSH approved respirator is recommended. Local exhaust can be used, if necessary, to control airborne dust levels.

EYES: Wear tight fitting goggles.

SKIN: The use of barrier creams or impervious gloves, boots and clothing to protect the skin from contact is recommended. Following work, workers should shower with soap and water. Precautions must be observed because burns occur with little warning – little heat is sensed.

WARN EMPLOYEES AND/OR CUSTOMERS OF THE HAZARDS AND REQUIRED OSHA PRECAUTIONS ASSOCIATED WITH THE USE OF THIS PRODUCT.

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