

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: MM-1
CHEMICAL NAME/SYNONYM: None

MANUFACTURER: InCide® Technologies, Inc.
ADDRESS: 50 North 41st Avenue
 Phoenix, AZ 85009

EMERGENCY PHONE: (602) 233-0756
CHEMTREC PHONE: (800) 424-9300

RECOMMENDED USE: Cementitious Admixture

SECTION 2: HAZARDS IDENTIFICATION

HAZARD OVERVIEW: May cause irritation to skin, eyes, and respiratory tract. Crystalline silica is a natural component of activated montmorillonite and is present in the mixture at <1% by weight and is considered a carcinogen.

OSHA HAZARD CLASSIFICATION:

Eye irritation Category 1
 Carcinogenicity Category 1A

OSHA HAZARD PICTOGRAM:

SIGNAL WORD: Danger

HAZARD STATEMENTS:

Causes serious eye damage.
 May cause cancer.

PRECAUTIONARY STATEMENTS:

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Wear protective gloves/ protective clothing/ eye protection/ face protection (see section 8).

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately seek medical attention.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention.

Wash thoroughly after handling. Take off contaminated clothing and wash it before reuse. Do not allow contaminated work clothing out of the workplace.

Store locked up in a well-ventilated place. Keep container tightly closed.
 Dispose of contents/container to in accordance with local/regional/national/international regulations (see section 13).

OTHER HAZARDS WHICH DO NOT RESULT IN CLASSIFICATION: None.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>% WT</u>
Activated montmorillonite	1302-78-9	>80
Calcium hydroxide	1305-62-0	6-10
Magnesium hydroxide	1309-42-8	4-10
Crystalline silica	14808-60-7	<1

Other chemicals present in this mixture are present at <1% or <0.1% per OSHA 2012 HCS.

SECTION 4: FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water to remove particles. Seek medical attention if irritation persists.

SKIN: If irritated, wash affected area thoroughly with soap and water. Remove contaminated cloths and launder before reuse.

INGESTION: Do not induce vomiting. Seek medical attention if any symptoms appear.

INHALATION: Remove to fresh air. Seek medical attention if any symptoms appear.

SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Use dry chemical extinguishing media or water.

SPECIAL FIRE FIGHTING PROCEDURES: None.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

SECTION 6: ACCIDENTAL RELEASE MEASURES

GENERAL: For dry material, collect by sweeping and scooping. Transfer collected material to a container, being careful to minimize creation of dust. Care should be taken to keep spilled products out of sewers, streams, and water systems.

LAND SPILL: Vacuum, shovel or sweep up and place in containers for disposal in accordance with applicable local regulations. Avoid contamination of water bodies during clean up and disposal.

WATER SPILL: No specific instruction. Care should be taken to keep spilled products out of sewers, streams, and water systems.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Good housekeeping procedures should be followed to minimize dust generation and accumulation. Avoid spills. Do not eat, drink, or smoke in work areas. Wash hands and exposed skin after use. Remove contaminated clothing and protective equipment before entering eating areas.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Keep dry until use. Atmospheric temperatures and pressures do not affect the shelf life of this product. Store out of direct heat and light. Do not store near potential spark or flame. Incompatible with strong oxidizing agents.

Storage temperature:	Ambient
Storage pressure:	Atmospheric
Special sensitivity:	None

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>OSHA</u>	<u>ACGIH</u>
Activated montmorillonite	1302-78-9	15 mg/m ³ total dust and 5 mg/m ³ respirable dust	10 mg/m ³ total dust and 3 mg/m ³ respirable dust
Calcium hydroxide	1305-62-0	15 mg/m ³ total dust and 5 mg/m ³ respirable dust	5 mg/m ³
Magnesium hydroxide	1309-42-8	15 mg/m ³ total dust and 5 mg/m ³ respirable dust	10 mg/m ³ total dust and 3 mg/m ³ respirable dust
Crystalline silica	14808-60-7	15 mg/m ³ total dust	0.025 mg/m ³ respirable dust

ENGINEERING CONTROLS AND VENTILATION: Use local exhaust ventilation to keep airborne concentrations of dust below permissible exposure limits.

RESPIRATORY PROTECTION: If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted vapor/particulate respirator approved by NIOSH for protection.

EYE PROTECTION: Wear eye protection (e.g., safety goggles) to reduce the potential for eye contact.

SKIN PROTECTION: Prevent prolonged or repeated contact by using rubber gloves, sleeves, aprons, and appropriate protective clothing.

SECTION 8 NOTES: PEL: Permissible Exposure Limit, TLV: Threshold Limit Value, TWA: Time Weighted Average

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Light grey powder

ODOR: Earthy

ODOR THRESHOLD: Not applicable

pH AT AS SUPPLIED: Not applicable

MELTING POINT/ FREEZING POINT: Not applicable

BOILING POINT AND BOILING RANGE: Not applicable

FLASH POINT: Not applicable

EVAPORATION RATE: Not applicable

FLAMMABILITY: Non-flammable

UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: Not applicable

VAPOR PRESSURE: Not applicable

VAPOR DENSITY: Not applicable

RELATIVE DENSITY: Not applicable

SOLUBILITY IN WATER: Slight (0.1-1.0%)

SPECIFIC GRAVITY: 3.12

PARTITION COEFFICIENT; n-octanol/water: Unknown

AUTO-IGNITION TEMPERATURE: Not applicable

DECOMPOSITION TEMPERATURE: Not applicable

VISCOSITY: Not applicable: solid substance

EXPLOSIVE PROPERTIES: Not explosive

OXIDISING PROPERTIES: Not oxidizing

MOLECULAR WEIGHT: Mixture

VOC CONTENT: No VOCs

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: None known.

STABILITY: The product is stable and does not change under normal storage conditions.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None known.

SECTION 11: TOXICOLOGICAL INFORMATION

ROUTES OF EXPOSURE: Inhalation of dust and dermal exposure are the most significant routes of exposure in occupational and other settings. Incidental ingestion of dust may occur. Personal protective equipment and good hygiene can reduce these exposures significantly.

SYMPTOMS RELATED TO THE PHYSICAL, AND CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS: Exposure can irritate skin, eyes, throat, and nose.

DELAYED AND IMMEDIATE EFFECTS AS WELL AS CHRONIC EFFECTS FROM SHORT AND LONG-TERM EXPOSURE: Hypersensitive individuals may develop allergic dermatitis. Quartz (crystalline silica) contamination of activated montmorillonite and calcium hydroxide in excess of 2% may pose a risk for silicosis, a lung disease. This product contains less than <0.1% of silica. Prolonged and repeated inhalation of respirable crystalline silica-containing dust in excess of appropriate exposure limits has been associated with silicosis. Symptoms of silicosis may include, but are not limited to, the following: shortness of breath; difficulty breathing with or without exertion; coughing; diminished work capacity; diminished chest expansion; reduction of lung volume; right heart enlargement and/or failure. Smoking may increase the risk of developing lung disorders, including emphysema and lung cancer. Not all individuals with silicosis will exhibit symptoms (signs) of the disease. However, silicosis can be progressive, and symptoms can appear at any time, even years after exposure has ceased. Persons with silicosis have an increased risk of pulmonary tuberculosis infection. Several

studies of persons with silicosis also indicate an increased risk of developing lung cancer, a risk that increases with the duration of exposure. Some of these studies of silicosis do not account for lung cancer confounders, especially smoking.

ACUTE HEALTH HAZARDS**Activated montmorillonite:**

Oral LD₀ (rat) : >5000 mg/kg of body weight
Dermal LD₀ (rabbit) : >2000 mg/kg
Inhalation LC₀ (rat) : >200 mg/L, 1 hr exposure
Dermal irritation/corrosivity (rabbit): Non irritating
Eye irritation (rabbit): Mild irritant (Category 2B)

Calcium hydroxide:

Oral LD₅₀ (rat) : 7340 mg/kg of body weight
Dermal LD₅₀ (rabbit): >2500 mg/kg
Inhalation LC₅₀ (rat) : > 6.04 mg/L
Dermal irritation/corrosivity: Irritating (Category 2, but present at <10%)
Eye irritation: Irritating (Category 1)

Magnesium hydroxide:

Oral LD₅₀ (rat) : >2000 mg/kg of body weight
Dermal LD₅₀ (rabbit): >2500 mg/kg
Inhalation LC₅₀ (rat) : > 2.1 mg/L
Dermal irritation/corrosivity: Not irritating
Eye irritation: Not irritating

CHRONIC HEALTH HAZARDS: Crystalline silica can cause a lung condition known as silicosis after long term exposure to dusts containing crystalline silica. Exposure of workers to crystalline silica containing dusts is specifically regulated by OSHA. The use of a correctly fitted, NIOSH approved respirator suitable for use against crystalline silica inhalation is essential for minimizing exposure to this danger. No other chronic effects were identified due to the other ingredients or the mixture.

REPRODUCTIVE EFFECTS: Studies have reported no effect of calcium hydroxide on reproductive or developmental endpoints. No effect on reproduction or development reported in studies of activated montmorillonite exposure in rats. Other ingredients present at less than 0.1% have not been associated with reproductive effects.

CARCINOGENICITY: Activated montmorillonite and calcium hydroxide are not listed as a known or suspected carcinogen by OSHA, ACGIH, NTP, or IARC. This product contains silica which is a human carcinogen by OSHA, ACGIH, and IARC. Other ingredients present at less than 0.1% have not been reported to be carcinogenic. Respirable crystalline silica is classified as carcinogenic (Group 1) by IARC. NTP lists respirable crystalline silica as a "known human carcinogen." ACGIH lists respirable crystalline silica as a suspected human carcinogen (A2). These classifications are based on sufficient evidence of carcinogenicity in certain experimental animals and on selected epidemiological studies of workers exposed to crystalline silica.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY:

Activated montmorillonite LC₅₀ in Rainbow trout (*Oncorhynchus mykiss*) was >19,000 mg/L
Activated montmorillonite LC₅₀ in Spotted seatrout (*Cynoscion nebulosus*) >7500 mg/L
Calcium hydroxide LC₅₀ in Rainbow trout (*Oncorhynchus mykiss*) was 50.6 mg/L
Calcium hydroxide LC₅₀ in Threespine stickleback (*Gasterosteus aculeatus*) was 457 mg/L
Calcium hydroxide 24h-EC₅₀ in *Daphnia magna* was 2.06 mg/L
Magnesium hydroxide LC₅₀ in minnow (*Pimephales promelas*) was 511 mg/L
Magnesium hydroxide LC₅₀ in *Daphnia magna* was 170.86 mg/L

PHYTOTOXICITY: No information found

PERSISTENCE AND DEGRADABILITY: No information found

BIOACCUMULATIVE POTENTIAL: No information found

MOBILITY IN SOIL: No information found

OTHER EFFECTS: None

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: This product must be disposed of in accordance with applicable local, state and federal regulations. Where possible, it is best to use up any excess material.

RCRA HAZARD CLASS: The product is not listed under any section of the Federal Resource Conservation and Recovery Act (RCRA).

CALIFORNIA HAZARDOUS WASTE DESIGNATION California identifies substances with acute oral, acute dermal, or acute inhalation LD₅₀s less than 2,500, 4,300, or 10,000 mg/kg, respectively as "hazardous wastes." This product is therefore NOT a "hazardous waste" if spilled in California.

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: The product is not a US Department of Transportation (DOT) Hazardous Material or Hazardous Substance.

OTHER AGENCIES: The product has no UN Number and is not regulated under international rail, highway, water, or air transport regulations.

SECTION 15: REGULATORY INFORMATION

TSCA NO.: All components of this product are listed on the TSCA inventory.

RCRA: Not listed as a hazardous waste under any sections of the Resource Conservation and Recovery Act or regulations (40) CFR 261 et seq.).

SUPERFUND: CERCLA/SARA. Not listed under CERCLA (the Comprehensive Environmental Response Compensation and Liability Act) or its 1986 amendments, SARA, (the Superfund Amendments and Reauthorization Act), including substances listed under Section 313 of SARA, Toxic Chemicals, 42 USC 11023, 40 CFR 372.65; Section 302 of SARA, Extremely Hazardous Substances, 42 USC 11002, 40 CFR 355; or the CERCLA Hazardous Substances list, 42 USC 9604, 40 CFR 302.

SAFE DRINKING WATER ACT: Not regulated under the SDWA, 42 USC 300g-1, 40 CFR 141 et seq.
Clean Water Act (Federal Water Pollution Control Act): 33 USC 1251 et seq.

- a.) Not a discharge covered by any water quality criteria of Section 304 of the CWA, 33USC 1314
- b.) It is not on the Section 307 List of Priority Pollutants, 33 USC 1317, 40 CFR 129
- c.) It is not on the Section 311 List of Hazardous Substances, 33 USC 1321, 40 CFR 116.

OSHA/CAL OSHA: This SDS document meets the requirements of both OSHA (29 CFR 1910.1200) and Cal OSHA (Title 8 CCR 5194(g)) hazard communication standards. Refer to Exposure Control/Personal Protection for regulatory exposure limits.

CALIFORNIA PROPOSITION 65: No ingredient is listed as a carcinogen or reproductive toxicant under California Proposition 65. Silica is a potential contaminant and is listed as a chemical known to the state of California to cause cancer.

SECTION 16: OTHER INFORMATION

OTHER INFORMATION: This SDS was finalized on October 11, 2018 and is compliant with OSHA HCS/HazCom 2012 Final Rule.

DISCLAIMER: Information presented herein has been compiled from sources considered dependable and is accurate and reliable to the best of our knowledge and belief, but it is not guaranteed to be so. Nothing herein is to be construed as recommending any practice or any product in violation of any law or regulation. It is the user's responsibility to determine the suitability of any material for a specific purpose and adopt necessary safety precautions. We make no warranty as to results to be obtained in using any material and, since conditions or use are not under our control, we must necessarily disclaim all liability with respect to use of any material supplied by us.