MATERIAL SAFETY DATA SHEET
CERAMICAL® Gypsum Cement

United States Gypsum Company
125 South Franklin Street
Chicago, Illinois 60606-4678

Product Safety: 1 (800) 507-8899
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Version 3

SECTION I
PRODUCT IDENTIFICATION

PRODUCT(S): CERAMICAL® Gypsum Cement
CHEMICAL FAMILY: Mixture of Calcium Sulfate Hemihydrate (Plaster of Paris, $CaSO_4 \bullet _H_2O$) & Portland Cement

SECTION II
INGREDIENTS

MATERIAL	WT%	TLV (mg/m^3)	PEL(mg/m^3)	CAS NUMBER
Plaster of Paris	>90	10	15(T)/5(R)	26499-65-0
Portland Cement	<5	10	15(T)/5(R)	65997-15-1
Crystalline Silica	<5	0.1(R)	0.1(R)	14808-60-7

(T) – Total (R) – Respirable
All ingredients of this product are included in the U.S. Environmental Protection Agency's Toxic Substances Control Act Chemical Substance Inventory. All components of this product are included in the Canadian Domestic Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL).

INFORMATION FOR HANDLING AND IDENTIFICATION OF CHEMICAL HAZARDS

NFPA Ratings:	Health: 1	Fire: 0	Reactivity: 0	Other: N/A
HMIS Ratings:	Health: 1	Fire: 0	Reactivity: 0	

Personal Protection: Use eye and skin protection. Use NIOSH/MSHA-approved respiratory protection when necessary.

0 = Minimal Hazard 1 = Slight Hazard 2 = Moderate Hazard 3 = Serious Hazard 4 = Severe Hazard

SECTION III
PHYSICAL DATA

Appearance and Odor: Gray powder; low odor.
Meltng Point: 1450°C – decomposes
Solubility In Water: 0.15%
Specific Gravity (H_2O=1): 2.7 – 3.0
pH: 12
Hardening Time: Varies. Check usage and/or product specification data for each product.

SECTION IV
FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): Non-combustible.
Extinguishing Media: Use extinguishing media appropriate for surrounding fire.
Special Fire Fighting Procedures: None

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Unusual Fire and Explosion Hazards: None

SECTION V
HEALTH HAZARD DATA

This product can release nuisance dust in handling or during use. Eye, skin, nose, throat, and upper respiratory irritation may occur with prolonged dust exposures.

EFFECTS OF OVEREXPOSURE:

ACUTE:

EYES: Portland cement is a strongly alkaline material. Contact with eyes will cause irritation and possible corrosion damage, burning and corneal edema. Particulates will also cause mechanical irritation.

SKIN: When mixed with water, this material hardens and then slowly becomes hot. **DO NOT** attempt to make a cast enclosing any part of the body. Failure to follow these instructions can cause severe burns that may require surgical removal of affected tissue or amputation of limb. Because of the high alkalinity of Portland cement, burns may occur 12 to 48 hours after exposures of 1 to 6 hours. Burns may occur without obvious pain at the time of exposure. Portland cement in dry form will not cause an alkaline burn by itself. Direct, prolonged or repeated contact with the skin may cause irritation. Rubbing of this product against the skin can result in abrasions. Rinse with water until free of material to avoid abrasions, then wash skin thoroughly with soap and water. Can cause chemical and mechanical irritation to skin, especially in sensitive individuals. May dry skin. If irritation persists, consult physician.

INHALATION: Irritating and may be corrosive to respiratory tract. Inhalation of dusts from this product can irritate the nose, throat, lungs and upper respiratory tract. Persons subjected to large amounts of this dust will be forced to leave area because of nuisance conditions such as coughing, sneezing and nasal irritation from dust. Labored breathing may occur after excessive inhalation. Remove subject to fresh air. If respiratory symptoms persist (irritation, cough, nausea, dizziness, etc.), consult physician.

INGESTION: If ingested, caustic burns may occur in the mouth, esophagus or stomach. Portland cement may be corrosive to the digestive tract. Plaster of paris is non-toxic, however, ingestion of a sufficient quantity could lead to mechanical obstruction of the gut, especially the pyloric region. See Emergency and First Aid – Ingestion below.

CHRONIC:

INHALATION: Bronchitis and emphysema have been reported after many years of exposure to Portland cement. Prolonged and repeated exposure to respirable crystalline silica can result in lung disease (i.e., silicosis) and/or lung cancer.

EYES: Conjunctivitis and keratitis.

SKIN: Dermatitis.

INGESTION: Burns to esophagus and stomach.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: Immediately flush eyes thoroughly with water for 30 minutes, including under lids. Get medical attention immediately. Contact lenses should NOT be worn when working with Portland cement.

SKIN: Promptly wash skin thoroughly with copious amounts of water for at least 15 minutes or longer depending on the concentration, amount and duration of exposure. If irritation or pain persists after washing, contact physician. If cement penetrates the clothing, promptly remove the clothing and wash skin. Wash clothing before wearing again. If skin is dry, a commercially available hand lotion may be used to treat dry skin areas. If skin has become cracked, take appropriate action to prevent infection and promote healing.

INHALATION: Remove to fresh air. Leave the area of dust exposure and remain away until coughing and other symptoms subside. Other measures are usually not necessary, however if conditions warrant, contact physician.

INGESTION: Get medical attention immediately. Portland cement is highly alkaline (pH 12) and may cause burns to the esophagus and stomach. This product contains gypsum plaster. Plaster of paris hardens when wetted and, if ingested, may result in obstruction. Drinking glycerin, gelatin solutions or large volumes of water may delay hardening.

TARGET ORGANS: Eyes, skin, and respiratory system.

MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED: Pre-existing upper respiratory and lung diseases such as, but not limited to, bronchitis, emphysema and asthma.

PRIMARY ROUTES OF ENTRY: Inhalation, ingestion, eyes and/or skin contact.

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CARCINOGENICITY OF INGREDIENTS:

MATERIAL	IARC	NTP
Crystalline Silica	Group 1	Anticipated

The average concentration of respirable crystalline silica measured in USG plaster of paris was less than 0.1 Wt.%.
In June, 1997, the International Agency for Research on Cancer (IARC) classified crystalline silica (quartz and cristobalite) as a human carcinogen. In making the overall evaluation, the IARC Working Group noted that carcinogenicity in humans was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs.
IARC states that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1).

SECTION VI
REACTIVITY DATA

STABILITY: Stable
INCOMPATIBILITY: None known
HAZARDOUS POLYMERIZATION: Will not occur
HAZARDOUS DECOMPOSITION: Above 1450°C could produce CaO and SO_2

SECTION VII
SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Sweep up material from spillage into a waste container for disposal. Do not flush down drains. If washed down, may plug drains. If already mixed with water, scrape up and place in container. Avoid dusting conditions, minimize airborne dust. Wear appropriate protective equipment.

WASTE DISPOSAL METHOD:
The material can be disposed of an an inertsolid in a landfill or by other procedures in accordance with Federal, State and Local regulations. Slurry may plug drains.

SECTION VIII
SPECIAL PROTECTION INFORMATION

No TLV assigned to this mixture, see Ingredients Section. Minimize exposures in accordance with good hygiene practice.

RESPIRATORY PROTECTION:
Not typically necessary under normal conditions of use. Provide general ventilation and local exhaust ventilation to meet TLV requirements of individual ingredients and to control dusting conditions. Avoid creating dust. Wear a NIOSH/MSHA-approved dust respirator in poorly ventilated areas and/or if TLV is exceeded.

VENTILATION:
Ventilate to keep exposures below TLV. General ventilation is expected to be satisfactory. Use local exhaust ventilation if necessary to control dust.

PERSONAL PROTECTIVE EQUIPMENT:
Gloves or protective clothing are usually not necessary but may be desirable in specific work situations. Wear gloves and protective clothing to prevent repeated or prolonged skin contact. Wear eye protection (safety glasses or goggles) to avoid particulate irritation of the eye.

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SECTION IX
SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

During handling wear the appropriate respiratory, eye and skin protection if warranted per environmental conditions. Keep dry. Dew point conditions or other conditions causing presence of liquid will harden this material during storage.

∆WARNING!

When mixed with water, this material hardens and then slowly becomes hot. **DO NOT** attempt to make a cast enclosing any part of the body using this material. Failure to follow these instructions can cause severe burns that may require surgical removal of affected tissue or amputation of limb. Dust may cause skin, eye, nose, throat, or respiratory irritation. Avoid dust inhalation and exposure to dust. If dusty, wear a NIOSH/MSHA-approved dust respirator. Use proper ventilation to reduce dust exposure. Portland cement is strongly alkaline and can be corrosive to eyes, skin, and respiratory tract. Wear eye and skin protection. If eye contact occurs, immediately flush thoroughly with water for 15 minutes and get medical attention. Do not ingest. If ingested and any discomfort occurs, call physician. Product safety information: (800) 507-8899.

KEEP OUT OF REACH OF CHILDREN.

END

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