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## Safety Data Sheet

# REPAIR MORTAR PLUS

## Section 1. Identification

**Product Use:** A cementitious single component specialty bag mix for concrete repairs and overlay.

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**Emergency Telephone Number (U.S.)** INFOTRAC 1-800-535-5053 **Emergency Telephone Number (International)** 1-352-323-3500

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## Section 2. Hazard(s) identification

#### **Emergency Overview**

Danger! Overexposure to Repair Mortar Plus mixed with water can cause skin or eye damage in the form of chemical (caustic) Burns, including third-degree burns. The same type of injury can occur if wet or moist skin has prolonged exposure to dry Repair Mortar Plus. Repair Mortar Plus and water mixture has a pH > 12.

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication

Standard (29 CFR 1910.1200).

Health hazards Skin corrosion/irritation: Category 1

Serious eye damage/eye irritation: Category 1

Sensitization, Skin: Category 1

Carcinogenicity/ inhalation: Category 1 Specific target organ toxicity, single exposure;

Respiratory tract irritation: Category 3

**OSHA** defined hazards Not classified

**GHS Label Elements** 







Hazard pictograms:

Signal Word: Danger

**Hazard statements:** Causes severe skin burns and eye damage

> May cause an allergic skin reaction Causes serious eye damage May cause cancer by inhalation May cause respiratory irritation

**Precautionary statement** 

Prevention: Obtain special instructions before use. Do not handle until all safety precautions

> have been read and understood. Do not breathe dust. Wash any exposed skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear

> protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required.

Response: IF exposed or concerned: Get medical advice/attention.

> IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. Immediately call a POISON

CENTER or doctor/physician.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower]. Wash contaminated clothing before reuse. IF SKIN

irritation or rash occurs: Get medical attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

Specific treatment (see section 4 below).

Relevant Routes of Exposure Eye contact, skin contact, inhalation and ingestion.

#### **Effects resulting from Eye Contact**

Exposure to dust may cause immediate or delayed irritation or inflammation. Eye contact by larger amounts of dry powder or splashes of wet Repair Mortar Plus may cause effects ranging from moderate eye irritation to chemical burns and blindness. Such exposures require immediate first aid (see Section 4, below) and medical attention to prevent significant damage to the eye.

#### Effects resulting from Skin Contact

Contact with Repair Mortar Plus can cause drying of the skin, severe irritation or chemical burns (thirddegree), and dermatitis. A single short-term exposure to the dry powder is not likely to cause serious harm.

Overexposure to wet Repair Mortar Plus can cause severe skin damage in the form of chemical burns, including third-degree burns. The same type of injury can occur if wet or moist skin is exposed to dry Repair Mortar Plus. Repair Mortar Plus dust in wet or moist clothing can transmit the caustic effects to the skin, causing chemical burns. Repair Mortar Plus causes skin burns with little warning; discomfort or pain cannot be relied upon to alert a person to a serious injury. You may not feel pain or the severity of the burn until hours after the exposure.

Repair Mortar Plus can cause dermatitis by irritation and allergy. Irritant dermatitis is caused by fine particles of Repair Mortar Plus that abrade the skin mechanically and cause irritation resulting in dermatitis. Repair Mortar Plus may contain trace amounts of hexavalent chromium. Hexavalent chromium is associated with allergic skin reactions which may appear as contact dermatitis and skin ulcerations. Persons already sensitized may react

to their first exposure of Repair Mortar Plus. Other individuals may develop allergic dermatitis after repeated exposure to Repair Mortar Plus. The symptoms of allergic reactions may include reddening of the skin, rash, and irritation. Symptoms of chronic exposure to wet cement may include reddening, irritation, and eczematous rashes. Drying, thickening, and cracking of the skin and nails may also occur.

#### Effects resulting from Inhalation

Dusts may irritate the nose, throat, and respiratory tract. Coughing, sneezing, and shortness of breath may occur following exposures in excess of appropriate exposure limits. Prolonged and repeated inhalation of respirable crystalline silica-containing dust in excess of appropriate exposure limits has caused silicosis, fibrosis or scar tissue formation in the lungs.

#### **Effects resulting from Ingestion**

Although small quantities of dust are not known to be harmful, ingestion of large quantities may cause severe irritation and chemical burns of the mouth, throat, stomach and digestive tract. Do not swallow Repair Mortar Plus.

## **Carcinogenicity**

Repair Mortar Plus is not listed as a carcinogen by NTP, OSHA, ACGIH or IARC. However, it may contain trace amounts of substances listed as a carcinogen by NTP, OSHA, ACGIH and/or IARC: crystalline silica, chromium VI compounds (hexavalent chromium), nickel or lead.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

**Disposal:** Dispose of container in accordance with local, state, and federal regulations.

Hazards Not Otherwise: Non

Classified

None known

Supplemental information None

#### Section 3. Composition/Information on Ingredients

COMPONENTS CAS # CONCENTRATION

Calcium Compounds (containing) (CAS # 65997-15-1) 35% - 40% - Tri Calcium Silicate, 3CaO.SiO2 (CAS #12168-85-3) Varies - Di Calcium Silicate, 2CaO.SiO2 (CAS #10034-77-2) Varies

- Tri Calcium Aluminate, 3CaO.Al2O3 (CAS #12042-78-3) Varies
- Calcium Aluminoferrite, a solid solution (CAS #12068-35-8) Varies
Gypsum CaSO4-2H2O (CAS #13397-24-5) 0.75 – 3.5%
Quartz (Crystalline Silica) (CAS #14808-60-7) 25% - 35%

#### **Trace Elements**

Trace constituents may include, but not limited to, calcium, magnesium, sodium sulfate, potassium, and sodium oxide. Since Repair Mortar Plus components are manufactured from materials mined from the earth, and process heat is provided by burning fuels derived from the earth, trace but detectable amounts of naturally occurring metals, and possibly harmful elements may be found during chemical analysis.

## **Section 4. First Aid Measures**

#### **Eyes**

Quickly and gently blot or brush Repair Mortar Plus off the face. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain immediate medical attention.

#### Skin

Heavy exposure to Repair Mortar Plus dust, wet concrete or associated water requires prompt attention. Quickly remove contaminated clothing, shoes, and leather goods (e.g. watchband, belts). Quickly and gently blot of brush away excess Repair Mortar Plus. Immediately wash thoroughly with lukewarm, gently flowing water and not-abrasive soap. Seek medical attention for rashes, burns, irritation, dermatitis and prolonged unprotected exposures to wet cement, cement mixtures or liquids from wet cement. Burns should be treated as caustic burns. Repair Mortar Plus causes skin burns with little warning; discomfort or pain cannot be relied upon to alert a person to a serious injury. You may not feel pain of the severity of the burn until hours after the exposure.

#### **Inhalation of Airborne Dust**

Remove source of contamination or move victim to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen. DO NOT allow victim to move about unnecessarily. Seek medical help if coughing and other symptoms persist. Inhalation of large amounts of Portland cement requires immediate medical attention.

#### Ingestion

NEVER give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 60 to 240 mL (2 to 8 oz.) water. Immediately obtain medical attention.

## Section 5. Fire Fighting Measures

Extinguishing media	Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	Do not use water jet or water- based fire extinguishers.
Specific hazards arising from the chemical	No specific fire or explosion hazard.
Hazardous thermal decomposition products	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides and metal oxide/oxides
Special protective actions for	Move containers from fire area if this can be done without risk. Use

**Fire-fighters** water fire-spray to keep fire-exposed containers cool.

Special protective equipment

Fire-fighters

Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus (SCBA) with a full face-piece operated in

positive pressure mode.

## Section 6. Accidental Release Measures

#### Take personal precautions

Keep unnecessary and unprotected personnel from coming into contact with spilled material. Do not touch or walk through spilled material. Do not breathe dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment when in contact with the material.

#### **Cleaning-up spills**

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has entered the environment, including waterways, soil or air. Materials can enter water ways through drainage systems. Collect dry material using a scoop. Avoid actions that cause dust to become airborne. Avoid inhalation of dust and contact with skin. Wear appropriate personal protective equipment as described in Section VIII. Scrape up wet material and place in an appropriate container. Allow the material to "dry" before disposal. Do not attempt to wash cement down drains.

## **Disposal Method**

Scrape up wet material and place in an appropriate container. Allow the material to "dry" before disposal. Do not attempt to wash cement down drains. Dispose of in accordance with state, federal, or local Regulations.

## Section 7. Handling and Storage

#### Handling

Use personal protective equipment (See Section VIII) when handling Repair Mortar Plus. Persons using Repair Mortar Plus should be familiar with its properties and hazards. A key to using the product safely requires the user to recognize that Repair Mortar Plus reacts chemically with water to produce calcium hydroxide that can cause severe chemical burns.

Avoid actions that generate dust and cause dust to become airborne. Avoid prolonged exposure to dust.

Skin and eye contact with Repair Mortar Plus should be avoided. Do not get Repair Mortar Plus inside boots, shoes or gloves. Do not allow wet clothing saturated with Repair Mortar Plus to remain against the skin. Promptly remove clothing and shoes that are dusty or wet with Repair Mortar Plus fluids and launder/clean before reuse. Wash thoroughly after exposure to dust or wet Repair Mortar Plus mixtures.

Do not enter a confined space that stores or contains Repair Mortar Plus unless appropriate procedures and protection are available. Repair Mortar Plus can build up or adhere to walls of a confined space and release or fall suddenly. Likewise, do not walk on top of Repair Mortar Plus stored in vessels, bins, and silos (engulfment hazard).

#### Storage

Keep Repair Mortar Plus dry until used.

#### **Further information**

Drying Repair Mortar Plus is hygroscopic (it absorbs water). Repair Mortar Plus needs water to harden. It will draw water away from any material it contacts, including skin.

Respirable crystalline silica-containing dust may be generated by Repair Mortar Plus when hardened product is subjected to mechanical forces, such as sanding, crushing, grinding and cutting.

#### Keep out of the reach of children.

## Section 8. Exposure Controls/Personal Protection

#### 1. Exposure Guidelines

Substance Name		OSHA PEL mg/m3	ACGIH TLV mg/m3
Calcium Compounds	Total dust	15	-
	Respirable	5	1
Calcium Sulfate	Total dust	15	-
(Gypsum)	Respirable	5	10
Magnesium Oxide (inh	alable fraction)	15	10
Calcium Oxide		5	2
Silica (quartz)	Total dust	30/(% silica+2)	-
	Respirable	10/(% silica+2)	0.025

#### 2. Engineering Controls

Avoid creating dust and actions that cause dust to become airborne. Use general or local exhaust ventilation as required to maintain exposures below appropriate exposure limits. Use product in well-ventilated areas. If ventilation is not adequate, see the respiratory protection recommended in this section.

## 3. Personal Protection Equipment

#### Eye/face protection

To prevent eye contact wear safety glasses with side shields, safety goggles or face shield when handling dust or wet Repair Mortar Plus. Dust goggles should be worn in extremely dusty conditions. Wearing contact lenses when working with cement is not recommended.

#### Hand protection

Use impervious, waterproof, abrasion- and alkali-resistant gloves. Do not rely on barrier creams in place of impervious gloves. Do not get Repair Mortar Plus inside gloves.

#### Skin and body protection

Use impervious, waterproof, abrasion- and alkali-resistant boots and protective long-sleeved and long-legged clothing to protect the skin from contact with wet Repair Mortar Plus. Where required to reduce foot and ankle exposure, wear impervious boots that are high enough to prevent Repair Mortar Plus from getting inside them. Do not get Repair Mortar Plus inside boots, shoes or gloves. Remove clothing and protective equipment that becomes saturated with cement and immediately was exposes areas.

#### Respiratory protection

Ordinarily, a respirator should not be required when handling wet Repair Mortar Plus. Use NIOSH-approved respirators, when an exposure limit could be exceeded, in poorly ventilated areas, or when dust causes discomfort or irritation. Respirator use must comply with applicable MSHA or OSHA standards which include provisions for a user training program, respirator repair and cleaning, respirator fit testing, and other requirements.

## 4. General hygiene considerations

**Danger**: Clean water should always be readily available for skin and (emergency) eye washing. Periodically wash areas contacted by Repair Mortar Plus with a pH neutral soap and clean, uncontaminated water. Wash again at the end of the work shift. If irritation occurs, immediately wash the affected area and seek treatment. If clothing becomes saturated with Portland cement. It should be removed and replaced with clean, dry clothing. Begin each day by wearing clean clothing and conclude the day with a bath or shower.

## Section 9. Physical and Chemical Properties

Physical State Solid/Powder Color Gray or white Odor Odorless

Specific gravity 2.75 to 3.15

Flammability
Flash point [method]
Auto ignition temperature
Flammable limits

Not combustible
Not applicable
Not applicable

(approx. volume % in air)

Boiling point 1000°C (1832°F)
Melting point 1000°C (1832°F)
Decomposition temperature Not determined

pH 12 – 13

Solubility (H2O) Slightly soluble (0.1 - 1.0%)

Vapor pressure Not Applicable Vapor density Not Applicable

## Section 10. Stability and Reactivity

Reactivity Reacts slowly with water forming hardened hydrated compounds, releasing heat and

producing a strong alkaline solution.

**Stability** Stable. Keep dry until used.

#### **Incompatible Materials or Conditions**

Reactive or incompatible with the following materials: oxidizing materials, acids, aluminum and ammonium salt. Repair Mortar Plus is highly alkaline and will react with acids to produce a violent, heat- generating reaction. Toxic gases or vapors may be given off depending on the acid involved. Reacts with acid, aluminum metals and ammonium salts. Aluminum powder and other alkaline earth elements will react in wet mortar or cementitious material, liberating hydrogen gas. Limestone ignites on contact with fluorine and is incompatible with acids, alum, ammonium salts, and magnesium.

Silica reacts violently with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, magnesium trifluoride, and oxygen difluoride yielding possible fire and/or explosions. Silicates dissolve readily in hydrofluoric acid producing a corrosive gas – silicon tetrafluoride.

## **Hazardous Decomposition**

None known under normal conditions of storage and use.

#### **Hazardous Polymerization**

Will not polymerize.

#### Conditions to avoid

Contact with Incompatible Materials

## Section 11. Toxicological Information

Other than hazards identified in Section 2, no other known toxicological information available.

## Section 12. Ecological Information

#### **Eco-toxicity**

Repair Mortar Plus hardens with water or moisture and is not expected to present unusual eco-toxicity risks to plants or animals. No recognized unusual toxicity to plants or animals.

#### Relevant physical and chemical properties

(See Sections 9 and 10.)

## Section 13. Disposal Considerations

Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Untreated waste should not be released to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe manner. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff, and contact with soil, waterways, drains and sewers.

## Section 14. Transport Information

	DOT Classification	IMDG	IATA
UN number Hazard class(es)	Not regulated.	Not regulated. —	Not regulated. —
Packing group Environmental hazards Additional information	None.	None.	None —

## Section 15. Regulatory Information

#### Status under USDOL-OSHA Hazard Communication Rule, 29 CFR 1910.1200

This product is considered a "hazardous chemical" under this regulation, and should be part of any hazard communication program.

#### Status under CERCLA/SUPERFUND 40 CFR 117 and 302

Not listed.

## Hazard Category under SARA (Title III), Sections 311 and 312

This product qualifies as a "hazardous substance" with delayed health effects.

#### Status under SARA (Title III), Section 313

This product does not contain Emergency Planning and Community Right to Know (EPCRA") Section 313 chemicals in excess of the applicable de minimis concentration specified in EPCRA Section 313 Section 372.38(a). Trace amounts of naturally occurring chemicals might be detected during chemical analysis.

#### Status under TSCA (as of May 1997)

The ingredients of this product are listed on the TSCA inventory or are exempt.

#### Status under the Federal Hazardous Substances Act

This product is a "hazardous substance" subject to statutes promulgated under the subject act.

#### Status under California Proposition 65

This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. California law requires the manufacturer to give the above warning in the absence of definitive testing to prove that the defined risks do not exist.

#### **State Right to Know:**

Calcium Compounds (CAS # 65997-15-1)

U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Washington - Permissible Exposure Limits - TWAs

Quartz (crystalline silica) (14808-60-7)

U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Washington - Permissible Exposure Limits - TWAs

Gypsum (7778-18-9)

U.S. - New Jersey - Right to Know Hazardous Substance

## **Section 16. Other Information**

#### Notice to reader

While the information provided in this safety data sheet is believed to provide a useful summary of the hazards of Portland Cement as it is commonly used, the sheet cannot anticipate and provide all of the information that might be needed in every situation. Inexperienced product users should obtain proper training before using this product. In particular, the data furnished in this sheet do not address hazards that may be posed by other materials mixed with Portland Cement to produce Portland Cement products. Users should review other relevant material safety data sheets before working with this Portland Cement or working on Portland Cement products, for example, Portland Cement concrete.

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#### **Abbreviations**

ACGIH — American Conference of Governmental Industrial Hygienists

CAS — Chemical Abstract Service

CERCLA — Comprehensive Emergency Response and Comprehensive Liability Act

CFR — Code of Federal Regulations

DOT — Department of Transportation

GHS - Globally Harmonized System Globally Harmonized System

HEPA - High Efficiency Particulate Air

IATA — International Air Transport Association

IARC — International Agency for Research on Cancer

IMDG — International Maritime Dangerous Goods

NIOSH — National Institute of Occupational Safety and Health

NOEC — No Observed Effect Concentration

NTP — National Toxicology Program

OSHA — Occupational Safety and Health Administration

PEL — Permissible Exposure Limit

REL — Recommended Exposure Limit

RQ — Reportable Quantity

SARA — Superfund Amendments and Reauthorization Act

SDS — Safety Data Sheet

TLV — Threshold Limit Value

TPQ — Threshold Planning Quantity

TSCA — Toxic Substances Control Act

TWA — Time -Weighted Average

UN — United Nations