

TCC Materials2025 Centre Pointe Boulevard, Suite 300
Mendota Heights, MN 55120-1221**Emergency Telephone Number:**

651-688-9116

Information Telephone Number

651-905-8137

Revision Date

July 2023

Section 1: Product Identification

Product Type: Dry Packaged Cement-Based Products

Product Name:

Critical Pavement Repair

Section 2: Hazard Identification

The most immediate and likely hazards are burns from dust in the eye. When the product is mixed with water, it will form an alkaline solution, which can cause skin irritation. Dust from the product is irritating to breathe. Prolonged overexposure to dust from the product is harmful to breathe, because it will contain crystalline silica.

GHS Label Elements**Hazard Pictogram(s):****Signal Word:** DANGER

This product has been evaluated according to GHS and 29CFR1910.1200, Appendix A. It is categorized as a Health Hazard Carcinogen Category 1A, because it contains crystalline silica (quartz). It is categorized as a Health Hazard (serious eye damage/eye irritation - Category 1 and skin irritation – Category 2) because it contains Portland cement.

Applicable hazard statement(s) based on cement content

Causes severe skin burns and eye damage.

May cause an allergic reaction.

May cause respiratory irritation.

Applicable hazard statement(s) based on crystalline silica content

May cause cancer from inhaling dust.

Causes damage to respiratory system (silicosis) through prolonged or repeated exposure to inhaled dust.

Precautionary Statement(s)
Prevention

Do not breathe dust. Wash thoroughly after handling. Wear protective gloves/clothing and eye/face protection (water resistant protective gloves; goggles recommended to prevent any dust in eyes). Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product.

Response

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

Immediately call a poison center/doctor.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor if any eye irritation or discomfort develops.

IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with plenty of water. Wash contaminated clothing before reuse. If skin irritation occurs, get medical attention.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center/doctor.

If exposed or concerns, or if you feel unwell: Get medical advice.

Storage

Store locked up, in a dry location, in original labeled packaging.

Disposal

Dispose of contents/container in accordance with local/state/national regulations.

Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions or illness.

Section 3: Hazardous Ingredients/Composition

Ingredient	Typical Percentage	CAS #
Portland Cement	20-45%	65997-15-1
Calcium Sulfoaluminate	0-30%	65997-16-2
Calcium Aluminate	0-30%	12042-68-1
Calcium Sulfate	0-15%	10101-41-4
Sand, which includes crystalline silica.....	25-40%	14808-60-7

Section 4: First Aid Measures

Description of the First Aid Measure

Eye contact:

Immediately rinse eyes: hold eyelids apart and flush eyes with plenty of water. At least fifteen minutes of flushing is recommended. If easy to do, remove contact lenses, if worn. Get prompt medical attention for any discomfort or irritation.

Skin Contact:

Promptly wash off with plenty of soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention for any burns or persistent rashes.

Inhalation:

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Ingestion:

Check with the Poison Control Center or a doctor. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Symptoms of Overexposure, both Acute and Delayed:

Eye contact: Eye irritation from the mechanical effect. Eye irritation, burning from cement. Cement reacts with moisture to form a very alkaline solution, which can severely irritate or burn eyes. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Skin Contact: Can cause skin irritation and can dry the skin. Because cement reacts with moisture exothermically to form an alkaline solution, contact with damp skin can cause irritation or burns, which may not be felt immediately. Severe burns of the feet have resulted from cement getting into footwear. Some people may develop an allergic dermatitis (cement itch) from chromate contaminants in Portland cement. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin.

Inhalation: Breathing the dust may cause coughing, wheezing, sore throat. Repeated exposure to the dust can cause a runny nose, chronic coughing and impaired lung function. Long term exposure to respirable crystalline silica in the dust can cause silicosis (lung scarring) and lung cancer.

Ingestion: Harmful if swallowed. May cause stomach distress, nausea or vomiting.

Indication of any Immediate Medical Attention and Special Treatments Needed

Note to Physician: Symptoms may not appear immediately Treat according to symptoms. No known specific antidote.

Specific Treatments: In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Section 5: Fire Fighting Measures

Flammability: Not flammable by WHIMIS/OSHA criteria

Fire extinguishing media: Appropriate for surrounding materials. Product is not flammable.

Special Hazards Arising from the Chemical:

Products of combustion: May include, and are not limited to oxides of carbon

Unusual fire and explosion hazards: None

Hazardous combustion products: None expected.

Special protective equipment and precautions for fire fighters:

Keep upwind of fire. Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Section 6: Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures:

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Avoid any contact with the skin and eyes.

Methods and materials for containment and clean-up:

Containment: Contain spill, then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Clean-up: Vacuum or sweep material and place in a disposal container. Avoid creating dust. Do not wash down drains or allow product to enter sewers – product will harden upon contact with water.

Section 7: Handling and Storage

Precautions for Safe Handling:

Handling:

Avoid contact with skin and eyes. Do not swallow. Good housekeeping is important to prevent accumulation of dust. Avoid generating and breathing dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended. Handle and open container with care. When using do not eat or drink. Wash hands before eating, drinking, or smoking. (See section 8)

General Hygiene Advice:

Laundry contaminated clothing before reuse. Wash hands after use. Do not eat, drink, or use tobacco products when handling any chemical products.

Conditions for Safe Storage, Including any Incompatibilities

Keep out of the reach of children. Store in dust-tight, dry, labeled containers. Keep containers closed when not in use. Avoid any dust buildup by frequent cleaning and suitable construction of the storage area. Do not store in an area equipped with emergency water sprinklers. Use corrosion-resistant structural materials and lighting and ventilation systems in the storage area. (See section 10)

Section 8: Exposure Controls/Personal Protection

Occupational Exposure Limits:

	OSHA PEL	ACGIH TLV	NIOSH REL
Portland cement	50 mppcf	1 mg/m ³ (respirable)	10 mg/m ³ (total) 5 mg/m ³ (respirable)
Calcium Sulfoaluminate	50 mppcf	1 mg/m ³ (respirable)	10 mg/m ³ (total) 5 mg/m ³ (respirable)
Calcium Aluminate	50 mppcf	1 mg/m ³ (respirable)	10 mg/m ³ (total) 5 mg/m ³ (respirable)
Calcium Sulfate	50 mppcf	1 mg/m ³ (respirable)	10 mg/m ³ (total) 5 mg/m ³ (respirable)
Crystalline Silica (sand)	50 µg/m ³ (8-hr TWA)	25 µg/m ³ (respirable)	50 µg/m ³ (respirable)

Engineering Controls:

Avoid creating dust.

If cutting or grinding material after it has hardened, water can be used as a dust suppressant.

Personal protective equipment

Eye/face Protection: Wear approved eye (properly fitted dust- or splash-proof chemical safety goggles / face (face shield) protection. If used in dusty or windy conditions, goggles are recommended.

Skin Protection: Avoid any skin contact, particularly when skin may be wet from sweat. Wear any water-impermeable gloves such as PVC gloves, particularly for prolonged contact. Wear waterproof boots, high enough to prevent any cement from getting into them. Promptly wash off of skin and remove contaminated clothing.

Respiratory Protection: Usually not required when working with virgin product, but take measures to minimize dust exposure. May be required, depending on work done, for grinding or cutting material after it has hardened. For protection against irritation from dust or up to ten times the recommended exposure limits, use a NIOSH-approved N-95 filtering facepiece or a half mask respirator equipped with N-95 filters. A more protective respirator (e.g., P100 filters or full face respirator) may be substituted.

General Health and Safety Measures:

Handle according to established industrial hygiene and safety practices. Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking.

Section 9: Physical and Chemical Properties

Appearance:	Powder.
Color:	Grey or grey-brown powder.
Odor:	No significant odor.
Physical state:	Powder.
Flash point:	Noncombustible.
Flammable limits:	N/A
Boiling Point:	>2700°F
Melting point:	>2700°F
Specific Gravity:	2.6 to 3.15
Solubility in water:	slight
pH:	11-13 (cements in water)
Evaporation Rate:	not applicable. Product does not evaporate.
Evaporation rate (butyl acetate = 1):	not applicable
V.O.C. =	0%, not applicable

Section 10: Stability and Reactivity

Reactivity:	No dangerous reaction known under conditions of normal use.
Chemical Stability:	Stable under normal storage conditions. Keep dry in storage.
Possibility of Hazardous Reactions:	No dangerous reaction known under conditions of normal use.
Conditions to Avoid:	Incompatible materials. Moisture.
Incompatible Materials:	Will react with water, hydrating product, hardening it, and giving off heat. Avoid strong oxidizers, strong acids.
Hazardous Polymerization:	Will not occur.
Hazardous Decomposition Products:	Silica will dissolve in hydrofluoric acid and produce a corrosive gas - silicon tetrafluoride. May include, and are not limited to: oxides of carbon.

Section 11: Toxicological Information

Information on toxicological effects:

Not considered acutely toxic.

Can damage the eyes, skin and respiratory system.

Portland cement and lime are caustic and abrasive to the skin. In contact with water or moisture, they can form alkaline hydroxides, which can cause burns that may not be felt immediately.

Portland cement may contain trace amounts of hexavalent chromium. Hexavalent chromium can cause allergic contact dermatitis.

Respirable crystalline silica is categorized as a Health Hazard Carcinogen Category 1A (known to have carcinogenic potential for humans) and a Health Hazard Specific Target Organ Toxicity – Repeated Exposure Category 1. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs. There is evidence that exposure to respirable silica or the disease silicosis is associated with an increased incidence of Scleroderma, tuberculosis and kidney disorders.

Crystalline silica is listed as carcinogenic according to IARC. ACGIH classified crystalline silica as a suspected human carcinogen.

Portland cement and lime are categorized as Health Hazard Serious Eye Damage/Eye Irritation Category 1 and Serious Skin Category 2, because they form a strong alkaline solution in water.

Delayed, Immediate, and Chronic Effects of Short- and Long-Term Exposure:

Skin Corrosion/ Irritation: Causes skin irritation.
Serious Eye Damage/Irritation: Causes serious eye damage.
Respiratory Sensitization: Based on available data, the classification criteria are not met.
Skin Sensitization: May cause an allergic skin reaction.
STOT-Single Exposure: May cause respiratory irritation.

Chronic Health Effects:

Carcinogenicity: May cause cancer.
Germ Cell Mutagenicity: Based on available data, the classification criteria are not met.

Reproductive Toxicity:

Developmental: Based on available data, the classification criteria are not met.

Teratogenicity: Based on available data, the classification criteria are not met.

Embryo toxicity: Based on available data, the classification criteria are not met.

Fertility:	Based on available data, the classification criteria are not met.
STOT-Repeated Exposure:	Based on available data, the classification criteria are not met.
Aspiration Hazard:	Based on available data, the classification criteria are not met.
Toxicologically Synergistic Materials:	Not available.
Other Information:	Not available.

Section 12: Ecological Information

Product as a whole has not been tested but is expected to have low acute toxicity.

Ecotoxicity:

Not considered hazardous to the aquatic environment or to the ozone layer.

Persistence and degradability: Not likely to biodegrade.

Mobility in soil: No information available.

Bioaccumulation: Based on ingredients, not likely to bioaccumulate.

Section 13: Disposal Considerations

Disposal Methods

Do not sewer or dump on the ground.

As provided, not a RCRA-regulated waste.

Dispose of in accordance with federal, state, and local regulations.

Special Considerations

Avoid creating or breathing dust during disposal. Avoid contact with eyes. Refer to Section 8 for personal protection measures.

Section 14: Transportation

Not a DOT-regulated hazardous material. Not classified as dangerous goods for DOT, IATA, IMDG, TDG

Section 15: Regulatory Information

Component Analysis**U.S. Federal Regulations**

This product contains one or more of the following chemical components or ingredients that may require identification and/or reporting under SARA Section 302, SARA Sections 311/312/313, CERCLA, and/or TSCA. An examination of the components of this product should be conducted by a qualified environmental professional to determine if such identification or reporting is required by federal law.

Components: Portland cement, Silica (Crystalline)

U.S. State Regulations

This product contains one or more of the following chemical components or ingredients that are included on the hazardous materials list for one or more of the following states: California, Maine, Minnesota, New Jersey, Pennsylvania and Rhode Island. An examination of the components of this product should be conducted by a qualified environmental or safety and health professional to determine the specific requirements for those states.

Components: Portland cement, Limestone (calcium carbonate), Gypsum (calcium sulfate), Silica (Crystalline)

The state of California requires the following statement (Proposition 65) in regards to this material:



WARNING: This product can expose you to chemicals including crystalline silica which are known to the State of California to cause cancer, birth defects, or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

NFPA – National Fire Protection Association Rating:

Health: 3 Fire: 1 Reactivity: 0

HMIS[®] Hazardous Materials Identification System Rating:

Health: 3* Fire: 1 Reactivity: 0

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

HMIS[®] is a registered trademark of the National Paint and Coatings Association

Section 16: Other Information

Additional information on the product is available at www.tccmaterials.com

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Version: 1.0



Safety Data Sheet

Critical Pavement

Repair (CPR)

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Version 1.0

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