

SECTION 1) IDENTIFICATION

Product ID: TENON Castable Refractory Mortar

Product Name: Repair mortar

Revision Date: Jun 02, 2026 **Date Printed:** Jun 02, 2026

Version: 1.0 **Supersedes Date:** N.A.

Manufacturer's Name: TCC Materials

Address: 2025 Centre Pointe Blvd, Mendota Heights, MN, US, 55120

Emergency Phone: 651-688-9116

Information Phone Number: 651-905-8137

Fax:

Product/Recommended Uses:

SECTION 2) HAZARDS IDENTIFICATION

Classification

Carcinogenicity - Category 1A

Skin Sensitizer - Category 1

Specific Target Organ Toxicity - Repeated Exposure - Category 1

Safety data sheet prepared in accordance to the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

Pictograms



Signal Word

Danger

Hazardous Statements - Health

H350 - May cause cancer

H317 - May cause an allergic skin reaction

H372 - Causes damage to organs through prolonged or repeated exposure.

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read label before use.

Precautionary Statements - Prevention

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P280 - Wear protective gloves, protective clothing, eye protection/face protection.

P272 - Contaminated work clothing must not be allowed out of the workplace.

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

P264 - Wash thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

Precautionary Statements - Response

P308 + P313 - IF exposed or concerned: Get medical advice/attention.

P302 + P352 - IF ON SKIN: Wash with plenty of water.

P333 + P313 - If skin irritation or a rash occurs: Get medical advice/attention.

P321 - Specific treatment (see First-Aid on this label).

P362 + P364 - Take off contaminated clothing. And wash it before reuse.

P314 - Get Medical advice/attention if you feel unwell.

Precautionary Statements - Storage

P405 - Store locked up.

Precautionary Statements - Disposal

P501 - Dispose of contents/container in accordance with local/national/international regulations.

Hazards Not Otherwise Classified (HNOC)

None.

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	GHS Classifications	% By Weight
0014808-60-7	SILICA, CRYSTALLINE	Carc. 1A, H350; STOT RE 1, H372	45% - 70%
0065997-16-2	CEMENT, ALUMINA, CHEMICALS	Acute Tox. Derm. 4, H312; Acute Tox. Oral 4, H302; Aquatic Chronic 4, H413; Carc. 1A, H350; Eye Dam. 1, H318; Resp. Sens. 1, H334; Skin Corr. 1B, H314; Skin Sens. 1, H317	30% - 60%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing. Get Medical advice/attention if you feel unwell. If exposed/If you feel unwell/If concerned: Call a POISON CENTER/doctor.

Eye Contact

Gently brush product off face. Do not rub eyes. Let the eyes water naturally for a few minutes. Look right and left, then up and down. If eye irritation persists: Get medical advice/attention. Do not attempt to manually remove anything from the eyes. Avoid direct contact. Wear chemical protective gloves, if necessary. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face.

Skin Contact

IF exposed or concerned: Get medical advice/attention. Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes. If skin irritation or a rash occurs: Get medical advice/attention. Wash contaminated clothing before re-use or discard. Take off immediately all contaminated clothing, shoes and leather goods (e.g. watchbands, belts).

Ingestion

Rinse mouth. If exposed/If you feel unwell/If concerned: Call a POISON CENTER/doctor.

Most important symptoms and effects, both acute and delayed

No data available.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. No specific treatment is required. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Small Fire : Dry chemical, foam, carbon dioxide, water-spray or alcohol-resistant foam. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Large Fire : Water spray, fog or alcohol-resistant foam.

Unsuitable Extinguishing Media

Do not use straight stream of water.

Specific Hazards Arising from the Chemical

Fire will produce irritating gases.

Precautions for Firefighters

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Cool containers with flooding quantities of water until well after fire is out. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Equipment

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Evacuate persons not wearing protective equipment from area of spill until clean-up is complete. Ventilate closed spaces before entering. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. Isolate hazard area and keep unauthorized personnel away.

Protective Equipment

Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA).

Personal Precautions

Do not breathe dust. Do not get on skin, eyes or clothing.

Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material and water from clean-up/firefighting from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

Methods and Materials for Containment and Cleaning up

Avoid raising dust. Safely collect powdered material and deposit in sealed containers for disposal. Ventilate and wash area after clean-up is complete

SECTION 7) HANDLING AND STORAGE

General

Wash hands after use. Do not get in eyes, on skin, or on clothing. Avoid breathing dust. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. Eyewash stations and showers should be available in areas where this material is used and stored. All containers must be properly labelled.

Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source. Report ventilation failures immediately.

Storage Room Requirements

Store in a cool, dry, well ventilated area, away from sources of ignition and incompatibilities. Keep containers securely sealed when not in use. Containers that have been opened must be carefully resealed to prevent leakage. Indoor storage should meet OSHA standards and appropriate fire codes. Empty containers retain residue and may be dangerous.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection

Wear Dust-proof goggles with side shields

Skin Protection

Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Use of chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and microorganisms. Examples of preferred glove barrier materials include: Butyl rubber, Polyethylene, Chlorinated polyethylene, Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Viton, Neoprene, Polyvinyl chloride ("PVC" or "vinyl"), Nitrile/butadiene rubber ("nitrile" or "NBR").

Full contact Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 480 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M).

Splash contact Material: Nitrile rubber Minimum layer thickness: 0.4 mm Break through time: 30 min

Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M).

Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	ACGIH TWA (mg/m3)	ACGIH TWA (ppm)	ACGIH STEL (mg/m3)	ACGIH STEL (ppm)	ACGIH Carcinogen	ACGIH TLV Basis	ACGIH Notations	OSHA TWA (mg/m3)
CEMENT, ALUMINA, CHEMICALS	1 (R)				A4	Pneumoconiosis; LRT irr; neurotoxicity	A4	
SILICA, CRYSTALLINE	0.025 (R)				A2	Pulmonary fibrosis; lung cancer	A2	50 µg/m³ [25 µg/m³ Action Level]

Chemical Name	OSHA TWA (ppm)	OSHA STEL (mg/m3)	OSHA STEL (ppm)	OSHA Carcinogen	OSHA Skin designation	OSHA Tables (Z1, Z2, Z3)	NIOSH TWA (mg/m3)	NIOSH TWA (ppm)
CEMENT, ALUMINA, CHEMICALS								
SILICA, CRYSTALLINE	a			1		[1,3]; [3];	0.05e	

Chemical Name	NIOSH STEL (mg/m3)	NIOSH STEL (ppm)	NIOSH Carcinogen
CEMENT, ALUMINA, CHEMICALS			
SILICA, CRYSTALLINE			1

(R) - Respirable fraction, A2 - Suspected Human Carcinogen, A4 - Not Classifiable as a Human Carcinogen, irr - Irritation, LRT - Lower respiratory tract

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density

24.91 lb/gal

Specific Gravity	2.99
% Solids By Weight	100.00%

Appearance	N/A
Odor Description	N/A
pH	N/A
Water Solubility	N/A
Flammability	N/A
Flash Point	N/A
Viscosity	N/A
Lower Explosion Level	N/A
Upper Explosion Level	N/A
Vapor Density	N/A
Freezing Point	N/A
Melting Point	N/A
Low Boiling Point	N/A
Evaporation Rate	N/A
Coefficient Water/Oil	N/A

SECTION 10) STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical Stability

Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions/Polymerization

Will not occur.

Conditions To Avoid

Avoid heat, sparks, flame and contact with incompatible materials

Incompatible Materials

Strong bases, acids, and oxidizing agents.

Hazardous Decomposition Products

Oxides of carbon.

SECTION 11) TOXICOLOGICAL INFORMATION

Acute Toxicity

The Acute Toxicity Estimate (ATE) for an oral exposure to this mixture is >5000 mg/kg body weight

The Acute Toxicity Estimate (ATE) for a dermal exposure to this mixture is >5000 mg/kg body weight

The Acute Toxicity Estimate (ATE) for an inhalation (vapour) exposure to this mixture is >20 mg/l

Aspiration Hazard

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

Carcinogenicity

May cause cancer

Germ Cell Mutagenicity

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

Respiratory/Skin Sensitization

May cause an allergic skin reaction

Reproductive Toxicity

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

Serious Eye Damage/Irritation

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

Skin Corrosion/Irritation

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

Specific Target Organ Toxicity - Repeated Exposure

Causes damage to organs through prolonged or repeated exposure.

Specific Target Organ Toxicity - Single Exposure

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

Chronic Exposure

0014808-60-7 SILICA, CRYSTALLINE

Prolonged inhalation of respirable crystalline silica dust can result in lung disease (i.e. silicosis and/or lung cancer). Symptoms include coughing, shortness of breath, wheezing and reduced pulmonary function.

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

Potential Health Effects - Miscellaneous

0014808-60-7 SILICA, CRYSTALLINE

Is an IARC, NTP or OSHA carcinogen. Repeated overexposure to crystalline silica may lead to x-ray changes and chronic lung disease. Inhalation of high dust concentrations may cause: breathing difficulties, lung injury. WARNING: This chemical is known to the State of California to cause cancer.

SECTION 12) ECOLOGICAL INFORMATION

Ecotoxicity

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

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No data available.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, state and local laws. Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes.

SECTION 14) TRANSPORT INFORMATION

	U.S. DOT Information	IMDG Information	IATA Information
UN Number:	Not Regulated	Not Regulated	Not Regulated
UN proper shipping name:	N/A	N/A	N/A
Transport Hazard class(es)	Not Applicable	Not Applicable	Not Applicable
Packaging:	Not Applicable		Not Applicable
Packing group		Not Applicable	
Hazardous substance (RQ)	Not Applicable	Not Applicable	Not Applicable
Environmental hazards	No Data Available	No Data Available	No Data Available
Note / Special Provision:	No Data Available	No Data Available	No Data Available
Transport in bulk according to Annex II of MARPOL and the IBC code	No Data Available	No Data Available	No Data Available

SECTION 15) REGULATORY INFORMATION

Safety, health and environmental regulations

The product has been evaluated against the following relevant regulations: U.S.A Toxic Substance Control Act (TSCA) California Proposition 65 Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312 Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313 Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Section 103



WARNING: This product can expose you to chemicals including SILICA, CRYSTALLINE, which is [are] known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

CAS	Chemical Name	% By Weight	Regulation List
0014808-60-7	SILICA, CRYSTALLINE	45.00% - 70.00%	SARA312, TSCA - Toxic Substances Control Act (TSCA), CA_Prop65, CA_Prop65_Type_Toxicity_Cancer
0065997-16-2	CEMENT, ALUMINA, CHEMICALS	30.00% - 60.00%	SARA312, TSCA - Toxic Substances Control Act (TSCA)

SECTION 16) OTHER INFORMATION

Glossary

ACGIH - American Conference of Governmental Industrial Hygienists; CAS - Chemical Abstracts Service ; Chemtrec - Chemical Transportation Emergency Center; DSL - Domestic Substances List; ESL - Effects screening levels; GHS - "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations; HMIS - Hazardous Material Information Service; IATA - Dangerous Goods Regulations (DGR) for the air transport (IATA); IMDG - International Maritime Dangerous Goods Code; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OEL - Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL - Permissible Exposure Limit; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self Contained Breathing Apparatus; ppm - parts per million; STEL - Short-term exposure limit; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-weighted average; US DOT- US Department of Transportation.

Version 1.0:

Revision Date: Jun 02, 2026

First Edition.

Full text of H-Statements referred to under Section 3

- H372 Causes damage to organs through prolonged or repeated exposure.
H318 Causes serious eye damage

H314	Causes severe skin burns and eye damage
H302	Harmful if swallowed
H312	Harmful in contact with skin
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H317	May cause an allergic skin reaction
H350	May cause cancer
H413	May cause long lasting harmful effects to aquatic life

DISCLAIMER

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.