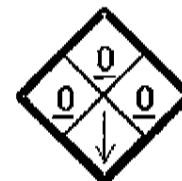


BNZ MATERIALS, INC.

Zelenople Plemet Billerica Tata Home Contact

Health Hazard	1*
Fire Hazard	0
Reactivity	0
Personal Protection	(e)

MATERIAL SAFETY DATA SHEET**SECTION I - CHEMICAL PRODUCT & COMPANY IDENTIFICATION****Trade Name:** No. 20 Cement**Generic Name:** Wet refractory mortar, Bonding mortar**Manufacturer:** BNZ Materials, Inc.**Address:** 6901 S. Pierce Street, Suite 260

Littleton, CO 80128, USA

MSDS Number: BNZ-3**Revision:** 10**Date Issued:** June 4, 2003**24 hour Emergency Number (ChemTrec®):** 800-424-9300**SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS Number	%	TLV	PEL
Silica Sand (quartz)	14808-60-7	50-70	0.1 mg/m ³	0.1 mg/m ³
Kyanite	1302-76-7	0-4	3 mg/m ³	5 mg/m ³
Clay	1332-58-7	10-15	2 mg/m ³	5 mg/m ³
Sodium Silicate	1344-09-8	20-30	None est.	None cst.
Product dust contains:				
Crystalline Silica (quartz)	14808-60-7	<15	0.05 mg/m ³	0.1 mg/m ³

Key: TLV = ACGIH, 8 hr. time weighted average (TWA); PEL = OSHA permissible exposure limit.

TLV and PEL limits are for total respirable dust.

SECTION III - HAZARDS IDENTIFICATION

Emergency Overview: This product contains crystalline silica which is considered a chronic health hazard by inhalation. The International Agency for Research on Cancer (IARC) has classified occupational exposures to respirable crystalline silica as being carcinogenic to humans (Class 1). This classification is based on what IARC considered sufficient evidence from epidemiological studies of humans for the carcinogenicity of inhaled silica in the forms of quartz and cristobalite. Crystalline silica is also known to cause Silicosis, a non-cancerous lung disease.

HMIS Rating: Health: 1* Fire: 0 Reactivity: 0 Other: 0
WHMIS Class: D-2A - Material causing other toxic effects (VERY TOXIC - Chronic)

Primary Routes of Entry: Via respirable dust, from dry product, to the lungs and respiratory system and via particulate to the eyes.

Primary Target Organs: Lungs, respiratory system and eyes.

Potential Health Effects:

Inhalation: Long term overexposure to respirable crystalline silica dust may cause permanent and irreversible lung damage including silicosis.

Skin Contact: May cause irritation to sensitive skin due to presence of sodium silicate.

Eye Contact: Sodium silicate is corrosive and can cause severe eye irritation and corneal burns.

Ingestion: May cause irritation or mouth burns when ingested. Potentially an Irritant to the GI tract if excessive quantity is ingested.

Medical Conditions Aggravated by Exposure: Dry skin or dermatitis. Product dust will aggravate pre-existing chronic upper respiratory and lung diseases such as, but not limited to, bronchitis, emphysema and asthma.

Carcinogenicity: This product contains crystalline silica which is classified as a class 1, human carcinogen by IARC, as a suspect carcinogen by NTP and as a possible select carcinogen by OSHA.

SECTION IV - FIRST AID MEASURES

Inhalation: Remove to fresh air. Drink water to clear throat and blow nose to evacuate dust. If coughing and irritation develop, call a physician.

Eye Contact: Flush with large amounts of water until irritation subsides, as least 15 minutes. See a physician if irritation persists.

Skin Contact: Normal good personal hygiene practices. Wash with mild soap and warm water after each exposure. A skin cream or emollient may soothe skin irritation.

Ingestion: Emergency procedures not normally required. May be a temporary irritant to the GI system.

SECTION V - FIREFIGHTING MEASURES

NFPA Rating: Health: 0 Fire: 0 Reactivity: 0 Other: 0
LEL: N/Ap UEL: N/Ap

Flashpoint and Method: This is a non-flammable product

Extinguishing Method: Not applicable. Product will not burn.

Special Firefighting Procedures: Not applicable.

Fire or explosion Hazards: The mortar products described above are non-flammable.

SECTION VI - ACCIDENTAL RELEASE MEASURES

Clean-up Procedures: Shovel wet spills into container for re-use or disposal. Flush area with water and mop dry. Take care to prevent entry into sewer system.

Personal Precautions: Wear chemical resistant gloves and footwear to guard against chemical burns from sodium silicate.

Environmental Precautions: None normally required.

SECTION VII - HANDLING AND STORAGE

Storage Requirements: Store in dry area. Keep from freezing. Always segregate materials by major hazard class.

Special Sensitivity or Incompatibility: Avoid contact with strong acids.

Handling Precautions: Assure proper respiratory protection if dust potential exceeds PEL/TLV.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: Not normally required when applying wet product. When removing dried product it is prudent to wear an approved face mask such as 3M 8511 N-95 or equivalent, to protect against silica and pneumoconiosis producing dust. Concentrations of dust that exceed the recommendations of the dust mask manufacturer will need a higher level of respiratory protection, such as a half mask respirator with appropriate dust filters.

Eye Protection: Wear safety glasses with side shields or goggles to protect eyes against splashes of wet mortar.

Skin Protection: Under normal conditions the wearing of protective gloves and clean, body-covering clothing should be adequate.

Engineering Controls: Not required during installation of wet product. During tear-out, maintain sufficient mechanical or natural ventilation to assure dust concentrations remain below PEL/TLV. Use local exhaust if necessary. Power equipment should be equipped with properly designed dust collection devices.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Gray, dark gray or light red wet mortar. No characteristic odor.

Melting Point: Not Determined

Specific Gravity: 1.7 to 2.4

Solubility in Water: Slight

Evaporation Rate: N/Ap

SECTION X - REACTIVITY

Stability: Product is stable under normal conditions.

Hazardous Polymerization: Cannot occur.

Incompatibilities: None in designed use.

Decomposition Products: None.

Conditions to Avoid: None in designed use.

SECTION XI - TOXICOLOGICAL/ECOLOGICAL INFORMATION

LD₅₀: N/Av

LC₅₀: N/Av

Toxicological Hazards: No toxicological studies of this specific product have been performed.

Ecological Hazards: Most ingredients in this product are naturally occurring minerals. Unless contaminated in service, this product is non-hazardous to the environment.

Teratogenicity, Mutagenicity, other Reproductive Effects: None known

SECTION XII - DISPOSAL CONSIDERATIONS

Waste Disposal Method: May be disposed in an approved landfill unless contaminated in service. If contaminated with hazardous materials, place waste in suitable container. Seal and properly label the waste container. Send the container to an approved Transportation, Storage and Disposal (TSD) facility via an approved waste hauler. Be sure manifests have been completed and an adequate "Paper trail" has been established.

SECTION XIII - TRANSPORTATION INFORMATION

US DOT Shipping Name: Not regulated **DOT Label:** None **UN/NA Number:** None

Canadian TGD Shipping Description: Not regulated as dangerous goods according to Canadian TDGA

International Dangerous Goods Information:

IMO: Not regulated as dangerous goods according to the IMDG Code.

ICAO: Not regulated as dangerous goods according to the IACO Technical Instructions.

SECTION XIV - REGULATORY INFORMATION

OSHA Status: This product is considered hazardous under OSHA criteria.

TSCA/CEPA Status: All components of this product are included in the TSCA and CEPA Chemical Inventories.

CERCLA Reportable Quantity: N/Ap

SARA Title III:

Section 302 Extremely Hazardous: This product contains no extremely hazardous substances as defined and listed in section #302

Section 311/312 Hazard Categories: Reportable as a hazardous substance. Check with your Local Emergency Planning Committee for reportable quantities.

Section 313 Toxic Chemicals: This product does not contain substances which are reportable under Section 313.

WHMIS Information: WHMIS Classification: D-2A - Material causing other toxic effects (VERY TOXIC - Chronic). This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR).

Other Regulatory Classifications:

DSCL (EEC): R36 - Irritating to eyes
R39 - Danger of very serious irreversible effects
R45 - May cause cancer

SECTION XV - APPROVALS

Reason for Issue: Change to Crystalline Silica (quartz) TLV standard (0.05 mg/m³). Removal of Product Stewardship Information. **Approval Date:** June 4, 2003

Prepared by: CCG, Inc. **Supersedes Date:** May 5, 2002

Revision History: Update HMIS Data, May 5, 2002

SECTION XVI - DISCLAIMER

No. 20 Cement

As of the date of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable federal and state laws. However, no warranty or representation of law or fact, with respect to such information, is intended or given.