



# Material Safety Data Sheet

Prepared in compliance with OSHA 29 CFR 1910.1200, ANSI Z400.1 and WHMIS regulations

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

**Trade Name** ZelieBlok® 2000, ZelieBlok® 2000S  
**Synonym(s)** Calcium silicate slab insulation  
**Product Use** Block insulation

**MSDS No.** BNZ 60-102  
**Rev. No.** 02  
**Issue Date** June 11, 2012

**Manufacturer** BNZ Materials, Inc.  
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For Chemical Spills and  
24-hr. Emergency Information  
**CHEMTREC** 1-800-424-9300  
**Outside the US Call** 1-703-741-5500

## SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical Name                            | CAS No.    | Conc. (%)   | ACGIH-TLV            | OSHA-PEL             |
|--|------------|-------------|----------------------|----------------------|
| Synthetic calcium silicate (containing): | --         | 94 – 98     | --                   | --                   |
| Calcium silicate                         | 1344-95-2  | --          | 10 mg/m <sup>3</sup> | 15 mg/m <sup>3</sup> |
| Xonolite                                 | 12141-77-4 | --          | None                 | None                 |
| Natural calcium silicate                 | 13983-17-0 | Proprietary | 3 mg/m <sup>3</sup>  | 5 mg/m <sup>3</sup>  |
| Cellulose fiber                          | None       | 2 – 4       | None                 | None                 |
| Calcite                                  | 13397-26-7 | 0 – 2       | 10 mg/m <sup>3</sup> | 5 mg/m <sup>3</sup>  |

Notes: (1) TLV and PEL values are 8-hour time-weighted averages for respirable dust, unless otherwise specified. (2) \* = total dust

## SECTION 3 HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

This product is not considered hazardous under normal conditions of use. Airborne particulates created during cutting, milling and sanding are considered nuisance dust, and should be minimized through the use of proper work practices and adequate ventilation.

**NFPA Rating**      **Health** 0      **Fire** 0      **Reactivity** 0      **Special Hazard** 0

**HMIS Rating**      **Health** 1      **Fire** 0      **Reactivity** 0      **PPE Code** E

**Hazard Category**      Acute (Immediate) Health Hazard

**Routes of Entry**      Lungs and respiratory system via respirable dust (inhalation), and eyes via coarse dust and particulates.

**Target Organs**      Lungs, respiratory system, and eyes.

### Signs and Symptoms of Overexposure

**Inhalation**      Irritating to the mucous membranes and lungs. Excessive exposure to dust may cause sore throat, coughing and upper respiratory irritation.

**SECTION 3 HAZARDS IDENTIFICATION**

|  |  |
|--|--|
| <b>Skin Contact</b>                              | Long-term exposure to product dust may cause dryness and/or irritation.  |
| <b>Eye Contact</b>                               | Product dust is a mechanical irritant which may cause moderate to severe eye irritation and dryness.   |
| <b>Ingestion</b>                                 | Non-hazardous when ingested. May cause mild irritation to the gastro-intestinal (GI) tract and mouth if excessive quantities are ingested.   |
| <b>Medical Conditions Aggravated by Exposure</b> | Medical conditions which may be aggravated by exposure to this product include, dry skin and/or dermatitis, and pre-existing chronic upper respiratory and lung diseases such as bronchitis, emphysema and asthma. |
| <b>Carcinogenicity</b>                           | The ingredients in this product are not considered carcinogenic.   |

**SECTION 4 FIRST AID MEASURES**

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | Remove to fresh air. Drink plenty of water, and blow nose to evacuate remaining dust. If coughing and irritation develop seek medical attention.   |
| <b>Eye Contact</b>  | Flush with large amounts of water until irritation subsides, at least 15 minutes. Seek medical attention if irritation persists.   |
| <b>Skin Contact</b> | Perform normal, good hygiene practices. Wash with mild soap and warm water after each exposure.  |
| <b>Ingestion</b>    | Emergency first-aid procedures are not normally required following ingestion. However, this product may cause temporary irritation to the gastro-intestinal (GI) tract and mouth if excessive quantities are ingested. |

**SECTION 5 FIRE FIGHTING MEASURES****Flammable Properties and Explosive Limits**

|   |   |                          |                 |
|---|---|--------------------------|-----------------|
| <b>Flash Point</b>                      | Non-flammable.  | <b>Upper Flam. Limit</b> | Not applicable. |
| <b>Autoignition</b>                     | Not applicable.   | <b>Lower Flam. Limit</b> | Not applicable. |
| <b>Extinguishing Media</b>              | Dry chemical, carbon dioxide (CO <sub>2</sub> ), water fog, or foam.  |                          |                 |
| <b>Fire and Explosion Hazard</b>        | This product is non-flammable and does not pose a significant fire or explosion hazard.   |                          |                 |
| <b>Special Firefighting Equipment</b>   | No special firefighting equipment is necessary. Use extinguishing media appropriate for the surrounding fire. Firefighters should wear protective clothing and use a self-contained breathing apparatus (SCBA). |                          |                 |
| <b>Hazardous Products of Combustion</b> | None known.   |                          |                 |

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

|                             |  |
|-----------------------------|--|
| <b>Personal Precautions</b> | If dusty conditions exist (i.e., during cutting, sanding or milling), wear a NIOSH-approved dust mask, such as the 3M 8511 N-95 or equivalent. |
|-----------------------------|--|

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

|                                  |   |
|----------------------------------|---|
| <b>Environmental Precautions</b> | Environmental precautions are not normally required. This product does not pose a significant threat to the environment.  |
| <b>Clean-Up Procedures</b>       | Before clean-up, wet down dust and debris with a fine water spray to suppress airborne particulates. Pick up, shovel or sweep material into an approved waste disposal container. Use equipment fitted with a high-efficiency particulate (HEPA) filter to vacuum clean dust. |

**SECTION 7 HANDLING AND STORAGE**

|                             |  |
|-----------------------------|--|
| <b>Handling Precautions</b> | Calcium silicate boards do not present a hazard in their intact state. Assure proper respiratory protection during cutting, milling or sanding, or if the dust potential exceeds the established TLV/PEL. Refer to Exposure Controls and Personal Protection in Section 8 for further information. |
| <b>Storage Requirements</b> | Store in a cool, dry, well ventilated area away from food and beverages. Keep away from reactive materials and always separate materials by hazard class. Refer to Stability and Reactivity in Section 10 for incompatibility information and conditions to avoid.                                 |

**SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION**

|                               |   |
|-------------------------------|---|
| <b>Engineering Controls</b>   | Maintain sufficient mechanical or natural ventilation to assure dust concentrations remain below the established TLV/PEL. Use local exhaust if necessary. Power equipment used during cutting, sanding or milling should be fitted with a properly designed dust collection device.   |
| <b>Respiratory Protection</b> | Wear a NIOSH-approved dust mask (i.e., 3M 8511 N-95 or equivalent) to limit exposure to product dust and fibers. Respiratory selection should be based on the level of exposure as measured by dust sampling. Concentrations that exceed the recommended dust mask limits may require a higher level of protection, such as a half-mask respirator with appropriate dust filters. |



|                       |   |
|-----------------------|---|
| <b>Eye Protection</b> | Wear safety glasses with side shields, goggles or face-shield when cutting, milling or sanding to protect eyes from dust and airborne particulates. Selection and use of eye protection should comply with ANSI Z87.1-1-1989 and applicable OSHA standards. |
|-----------------------|---|



|                        |  |
|------------------------|--|
| <b>Skin Protection</b> | Under normal conditions, protective gloves and a clean body covering are sufficient. Direct skin contact with dust and debris can be further minimized by wearing long-sleeved shirts and long trousers. |
|------------------------|--|



**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

|                            |                         |                                 |                        |
|----------------------------|-------------------------|---------------------------------|------------------------|
| <b>Physical Form</b>       | Solid insulation boards | <b>Odor</b>                     | No characteristic odor |
| <b>Color</b>               | Gray.                   | <b>Odor Threshold</b>           | Not available.         |
| <b>Specific Gravity</b>    | 1.5                     | <b>pH</b>                       | 8                      |
| <b>Boiling Point</b>       | 2453° F (1345° C)       | <b>Density @ 68° F (20° C)</b>  | 225 kg/m <sup>3</sup>  |
| <b>Melting Point</b>       | Not available.          | <b>Vapor Pressure</b>           | Not available.         |
| <b>Evaporation Rate</b>    | Not available.          | <b>% Volatile by Vol. / Wt.</b> | Not available.         |
| <b>Solubility in Water</b> | Insoluble               | <b>Viscosity</b>                | Not available.         |

**SECTION 10 STABILITY AND REACTIVITY**

|  |  |
|--|--|
| <b>Stability</b>                           | This product is stable under normal conditions of use.   |
| <b>Incompatibility</b>                     | None in designed use.  |
| <b>Conditions to Avoid</b>                 | Avoid strong acids and ammonium salts. Contact with powerful oxidizing agents (i.e., fluorine, chlorine trifluoride) may present a fire hazard.                      |
| <b>Hazardous Polymerization</b>            | Hazardous polymerization will not occur.   |
| <b>Hazardous Products of Decomposition</b> | Decomposition of residual organic fibers will emit carbon monoxide (CO) and carbon dioxide (CO <sub>2</sub> ) fumes during initial exposure to service temperatures. |

**SECTION 11 TOXICOLOGICAL INFORMATION**

|                                     |   |
|-------------------------------------|---|
| <b>Toxicological Hazards</b>        | No toxicological studies of this product have been performed. For other health-related information refer to the Hazards Identification in Section 3 of this MSDS. |
| <b>Sensitization</b>                | This product is not considered a sensitization hazard.  |
| <b>Teratogenic Effects</b>          | This product is not considered a teratogenic hazard.  |
| <b>Mutagenic Effects</b>            | This product is not considered a mutagenic hazard.  |
| <b>Reproductive System Toxicity</b> | This product is not considered hazardous. Reproductive system effects are not expected to occur.  |

**SECTION 12 ECOLOGICAL INFORMATION**

|                                   |   |
|-----------------------------------|---|
| <b>Ecotoxicity</b>                | Unless contaminated in service, this product is not considered hazardous to aquatic life. |
| <b>BOD5 / COD</b>                 | No additional information is available.   |
| <b>Products of Biodegradation</b> | No additional information is available.   |

**SECTION 13 DISPOSAL CONSIDERATIONS**

**Disposal Method** May be disposed in an approved landfill in accordance with local, state and federal regulations. If this product has become contaminated in service, place in an approved hazardous waste container. Seal and properly label the container, and send to a Transportation, Storage and Disposal (TSD) facility via an approved waste hauler.

**SECTION 14 TRANSPORTATION INFORMATION****U.S. Department of Transportation (DOT)**

**Shipping Name** Not a U.S. Department of Transportation (DOT) controlled substance.

**Hazard Class** Not applicable. **UN/NA Number** Not applicable.

**Label / Placard** Not applicable. **Packing Group** Not applicable.

**Special Provisions** This product does not require special transport provisions.

**SECTION 15 REGULATORY INFORMATION**

**TSCA Inventory** All ingredients are listed on the Toxic Substances Control Act (TSCA) inventory.

**California Prop. 65** Does not contain any substances known to the State of California to cause cancer.

**State RTK Lists** Not listed.

**CERCLA Reportable Quantity (RQ)** Does not contain any hazardous substances in excess of the CERCLA de minimis reportable quantity.

**Superfund Amendments and Reauthorization Act (SARA) Title III**

**Section 302 / 304** This product does not contain any Extremely Hazardous Substances (EHS) as defined and listed under SARA Title III, Sections 302 and 304.

**Section 311 / 312** This product meets the following EPA Hazard Categories as defined and listed under SARA Title III, Sections 311 and 312:

|                          |     |
|--------------------------|-----|
| <u>Acute Hazard</u>      | Yes |
| <u>Chronic Hazard</u>    | No  |
| <u>Fire Hazard</u>       | No  |
| <u>Reactivity Hazard</u> | No  |
| <u>Pressure Hazard</u>   | No  |

**Section 313** This product does not contain any substances subject to the reporting requirements of SARA Title III, Section 313.

**Other Regulatory Classifications**

**DSL (Canada)** All ingredients are listed, or exempt from inclusion, on the Canadian Domestic Substances List (DSL).

**WHMIS (Canada)** Not classified.

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**SECTION 16 OTHER INFORMATION**

|                         |  |                        |               |
|-------------------------|--|------------------------|---------------|
| <b>Reason for Issue</b> | WHMIS update   | <b>Issue Date</b>      | June 11, 2012 |
| <b>Prepared By</b>      | Compliance Consulting Group (CCG)<br>EH&S Services for BNZ Materials, Inc.   | <b>Supersedes Date</b> | July 15, 2008 |
| <b>Revision History</b> | June 11, 2012: WHMIS CPR compliance statement added to Section 15; new categories added to Section 11; Emergency overview text modified. |                        |               |
|                         | July 15, 2008: WHMIS update; format revision; MSDS numbering convention.   |                        |               |

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**DISCLAIMER**

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