SAFETY DATA SHEET

Section 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Product Name & Code: 1. ProSpec Metro Mix 240  
Product Code: 65510307  
2. ProSpec Shotcrete 3:1 With Fiber  
Product Code: 65350007

1.2 RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE

Use: Various.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Name/Address: Bonsal American, Inc.  
8201 Arrowridge Blvd.  
Charlotte, NC 28273

Telephone Number: 800-334-0784 Tech Service 8:00 to 5:00 Eastern, Mon.-Fri.

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Telephone Number: CHEMTREC 800-424-9300  
INTERNATIONAL + 01-703-527-3887

Date of Preparation: December 21, 2012

Version #: 1.0

Section 2: HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE CHEMICAL

Hazard class

Acute toxicity 4 (Oral)  
Skin irritation 2  
Serious eye damage 1  
Skin sensitization 1  
Carcinogenicity 1A  
Specific target organ toxicity - Repeated exposure 1

2.2 LABEL ELEMENTS

Hazard Pictogram:

Signal Word: Danger

Hazard Statement: Harmful if swallowed. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. May cause cancer. Causes damage to organs through prolonged or repeated exposure.

Prevention: Do not eat, drink or smoke when using this product. Wash skin thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and...
SAFETY DATA SHEET

understood. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust.

Response:
If swallowed: Immediately call a poison center/doctor. Rinse mouth. 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/doctor. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell.

Storage:
Store locked up.

Disposal:
Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3 ADDITIONAL INFORMATION
Hazards not otherwise classified: Not applicable.

19% of the mixture consists of ingredient(s) of unknown acute toxicity.

This product is a hazardous chemical as defined by NOM-018-STPS-2000.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>UN #</th>
<th>H / F / R / *</th>
<th>CAS No</th>
<th>Wt. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica, crystalline, quartz</td>
<td>Not available.</td>
<td>Not available.</td>
<td>14808-60-7</td>
<td>60 - 100</td>
</tr>
<tr>
<td>Portland cement</td>
<td>Not available.</td>
<td>1/0/0</td>
<td>65997-15-1</td>
<td>10 - 40</td>
</tr>
<tr>
<td>Ashes (residues)</td>
<td>Not available.</td>
<td>Not available.</td>
<td>68131-74-8</td>
<td>5 - 10</td>
</tr>
</tbody>
</table>

The exact percentage (concentration) of chemicals has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

* Per NOM-018-STPS-2000

Section 4: FIRST-AID MEASURES

4.1 DESCRIPTION OF THE FIRST AID MEASURE

Eye: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.

Skin: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

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: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention.
4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Eye: Causes serious eye damage. May cause burns in the presence of moisture. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Skin: Causes skin irritation. May cause burns in the presence of moisture. Skin contact during hydration may slowly develop sufficient heat that may cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Handling can cause dry skin. May cause sensitization by skin contact.

Inhalation: May cause respiratory tract irritation.

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

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED

Note to Physicians: Symptoms may not appear immediately.

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

5.1 FLAMMABILITY

Flammability: Not flammable by WHMIS/OSHA criteria.

5.2 EXTINGUISHING MEDIA

Suitable Extinguishing Media: Treat for surrounding material.

Unsuitable Extinguishing Media: Not available.

5.3 SPECIAL HAZARDS ARISING FROM THE CHEMICAL

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

Explosion Data:

Sensitivity to Mechanical Impact: Not available.

Sensitivity to Static Discharge: Not available.

5.4 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

6.1 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.

6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING - UP

Methods for 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).

Methods for Cleaning-Up: Vacuum or sweep material and place in a disposal container.
SAFETY DATA SHEET

Section 7: HANDLING AND STORAGE

7.1 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: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage: 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. (See section 10)

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Exposure Guidelines

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Occupational Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OSHA-PEL</td>
</tr>
<tr>
<td>Silica, crystalline, quartz</td>
<td>((10 mg/m³)/(%SiO₂+2) TWA (resp))</td>
</tr>
<tr>
<td>Portland cement</td>
<td>15 mg/m³ (total)</td>
</tr>
<tr>
<td>Ashes (residues)</td>
<td>5 mg/m³ (resp)</td>
</tr>
</tbody>
</table>

8.2 EXPOSURE CONTROLS

Engineering Controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

8.3 INDIVIDUAL PROTECTIVE MEASURES

Personal Protective Equipment:

Eye/Face Protection: Wear approved eye (properly fitted dust- or splash-proof chemical safety goggles) / face (face shield) protection.

Skin Protection:

Hand Protection: Wear suitable waterproof gloves.

Body Protection: Wear suitable waterproof protective clothing.
**Respiratory Protection:** A NIOSH approved dust mask or filtering facepiece is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).

**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

#### 9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance:** Powder.
- **Color:** Not available.
- **Odor:** Not available.
- **Odor Threshold:** Not available.
- **Physical State:** Solid.
- **pH:** 12 - 13
- **Melting Point/Freezing Point:** Not available.
- **Initial Boiling Point and Boiling Range:** Not available.
- **Flash Point:** Not available.
- **Evaporation Rate:** Not available.
- **Flammability:** Not Flammable.
- **Lower Flammability/Explosive Limit:** Not available.
- **Upper Flammability/Explosive Limit:** Not available.
- **Vapor Pressure:** Not available.
- **Vapor Density:** Not available.
- **Relative Density/Specific Gravity:** Not available.
- **Solubility:** Not available.
- **Partition coefficient: n-octanol/water:** Not available.
- **Auto-ignition Temperature:** Not available.
- **Decomposition Temperature:** Not available.
- **Viscosity:** Not available.
- **Percent Volatile, wt. %:** Not applicable.
- **VOC content, wt. %:** 0%, Not applicable; 0 wt, Not applicable.

### Section 10: STABILITY AND REACTIVITY

#### 10.1 REACTIVITY

No dangerous reaction known under conditions of normal use.
10.2 CHEMICAL STABILITY
Stable under normal storage conditions. Keep dry in storage.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS
No dangerous reaction known under conditions of normal use.

10.4 CONDITIONS TO AVOID
Incompatible materials. Moisture.

10.5 INCOMPATIBLE MATERIALS
None known.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS
May include, and are not limited to: oxides of carbon.

Section 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Likely Routes of Exposure: Skin contact, skin absorption, eye contact, inhalation, and ingestion.

Symptoms related to physical/chemical/toxicological characteristics:

**Eye:** Causes serious eye damage. May cause burns in the presence of moisture. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

**Skin:** Causes skin irritation. May cause burns in the presence of moisture. Skin contact during hydration may slowly develop sufficient heat that may cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Handling can cause dry skin. May cause sensitization by skin contact.

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

**Inhalation:** May cause respiratory tract irritation.

### Acute Toxicity:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>IDLH</th>
<th>LC50</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica, crystalline, quartz</td>
<td>Ca [25 mg/m³ (cristobalite, tridymite)] 50 mg/m³ (quartz, tripoli)]</td>
<td>Not available.</td>
<td>Oral 500 mg/kg, rat</td>
</tr>
<tr>
<td>Portland cement</td>
<td>5000 mg/m³</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Ashes (residues)</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Oral &gt; 2000 mg/kg, rat</td>
</tr>
</tbody>
</table>

#### Calculated overall Chemical Acute Toxicity Values

<table>
<thead>
<tr>
<th>LC50 (inhalation)</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>530.6 mg/kg, rat</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica, crystalline, quartz</td>
<td>G-A2, I-1, N-1, CP65</td>
</tr>
<tr>
<td>Portland cement</td>
<td>G-A4</td>
</tr>
<tr>
<td>Ashes (residues)</td>
<td>Not listed.</td>
</tr>
</tbody>
</table>
11.2 DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE

**Skin Corrosion/Irritation:** Causes skin irritation. May cause burns in the presence of moisture.

**Serious Eye Damage/Irritation:** Causes serious eye damage. May cause burns in the presence of moisture.

**Respiratory Sensitization:** Based on available data, the classification criteria are not met.

**Skin Sensitization:** May cause an allergic skin reaction.

**STOT-Single Exposure:** Based on available data, the classification criteria are not met.

**Chronic Health Effects:** Respirable crystalline silica in the form of quartz or cristobalite from occupational sources is listed by the International Agency for Research on Cancer (IARC) and National Toxicology Program (NTP) as a lung carcinogen. Prolonged exposure to respirable crystalline silica has been known to cause silicosis, a lung disease, which may be disabling. While there may be a factor of individual susceptibility to a given exposure to respirable silica dust, the risk of contracting silicosis and the severity of the disease is clearly related to the amount of dust exposure and the length of time (usually years) of exposure.

**Carcinogenicity:** May cause cancer.

**Germ Cell Mutagenicity:** This product is not classified as a mutagen.

**Reproductive Toxicity:**

- **Developmental:** Based on available data, the classification criteria are not met.
- **Teratogenicity:** Not hazardous by WHMIS/OSHA criteria.
- **Embryotoxicity:** Not hazardous by WHMIS/OSHA criteria.
- **Fertility:** Based on available data, the classification criteria are not met.

**STOT-Repeated Exposure:** Causes damage to organs through prolonged or repeated exposure.

**Aspiration Hazard:** Based on available data, the classification criteria are not met.

**Toxicologically Synergistic Materials:** Not available.

**Other Information:** Not available.

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## Section 12: ECOLOGICAL INFORMATION

### 12.1 ECOTOXICITY

**Acute/Chronic Toxicity:** No ecological consideration when used according to directions. Normal dilution of this product to drains, sewers, septic systems and treatment plants is not considered environmentally harmful.

### 12.2 PERSISTENCE AND DEGRADABILITY

Not available.

### 12.3 BIOACCUMULATIVE POTENTIAL

**Bioaccumulation:** Not available.
12.4 MOBILITY IN SOIL
Not available.

12.5 OTHER ADVERSE EFFECTS
Not available.

Section 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS
Disposal Method: This material must be disposed of in accordance with all local, state, provincial, and federal regulations.
Other disposal recommendations: Not available.

Section 14: TRANSPORT INFORMATION

14.1 UN NUMBER

<table>
<thead>
<tr>
<th>DOT</th>
<th>TDG</th>
<th>NOM-004-SCT2-1994</th>
</tr>
</thead>
</table>

14.2 UN PROPER SHIPPING NAME

<table>
<thead>
<tr>
<th>DOT</th>
<th>TDG</th>
<th>NOM-004-SCT2-1994</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

14.3 TRANSPORT HAZARD CLASS (ES)

<table>
<thead>
<tr>
<th>DOT</th>
<th>TDG</th>
<th>NOM-004-SCT2-1994</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

14.4 PACKING GROUP

<table>
<thead>
<tr>
<th>DOT</th>
<th>TDG</th>
<th>NOM-004-SCT2-1994</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

14.5 ENVIRONMENTAL HAZARDS
Not available.

14.6 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE
Not available.

14.7 SPECIAL PRECAUTIONS FOR USER
Do not handle until all safety precautions have been read and understood.

Section 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/ LEGISLATIONS SPECIFIC FOR THE CHEMICLA

**Canadian:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Mexico: MSDS prepared pursuant to NOM-018-STPS-2000.

### SARA Title III

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Section 302 (EHS)</th>
<th>Section 304 EHS RQ (lbs.)</th>
<th>CERCLA RQ (lbs.)</th>
<th>Section 313</th>
</tr>
</thead>
</table>

### State Regulations

**California Proposition 65:**

This product contains Crystalline Silica, Quartz and may also contain trace amounts of other chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

### Global Inventories

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Canada DSL/NDSL</th>
<th>USA TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica, crystalline, quartz</td>
<td>DSL</td>
<td>Yes.</td>
</tr>
<tr>
<td>Portland cement</td>
<td>DSL</td>
<td>Yes.</td>
</tr>
<tr>
<td>Ashes (residues)</td>
<td>DSL</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

### NFPA - National Fire Protection Association:

<table>
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<tr>
<th></th>
<th>3</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire:</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### HMIS - Hazardous Materials Identification System

<table>
<thead>
<tr>
<th></th>
<th>3*</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire:</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**WHMIS Classification(s):**
- Class D2A – Carcinogenicity
- Class D2A - Chronic Toxic Effects
- Class E - Corrosive Material

**WHMIS Hazard Symbols:**

Mexico Classification:
SAFETY DATA SHEET

Blue = Health    Red = Flammability    Yellow = Reactivity    White = Special

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

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

<table>
<thead>
<tr>
<th>Agency</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP65</td>
<td>California Proposition 65</td>
</tr>
<tr>
<td>OSHA (O)</td>
<td>Occupational Safety and Health Administration.</td>
</tr>
<tr>
<td>ACGIH (G)</td>
<td>American Conference of Governmental Industrial Hygienists.</td>
</tr>
<tr>
<td>IARC (I)</td>
<td>International Agency for Research on Cancer.</td>
</tr>
<tr>
<td>NTP (N)</td>
<td>National Toxicology Program.</td>
</tr>
</tbody>
</table>

   A1 - Confirmed human carcinogen.
   A2 - Suspected human carcinogen.
   A3 - Animal carcinogen.
   A4 - Not classifiable as a human carcinogen.
   A5 - Not suspected as a human carcinogen.

Section 16: OTHER INFORMATION

Date of Preparation: December 21, 2012
Expiry Date: December 21, 2015
Version: 1.0
Revision Date: December 21, 2012

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user’s responsibility to satisfy oneself as to the suitability and completeness of this information for the user’s own particular use.

Prepared by: Nexreg Compliance Inc.
Phone: (519) 488-5126
www.nexreg.com

Prepared for: Bonsal American, Inc.

End of Safety Data Sheet