Section 1: Product and Company Identification

Product Name
PermaBase® BRAND Cement Board Products

Product Identifiers
PermaBase
PermaBase UltraBacker
PermaBase DEK
PermaBase Flex
PermaBase Plus
UniPan

Other means of identification
Tile Backer Board, Cementitous Backer Board (CBU)

Recommended Use
Underlayment for ceramic tile on floors, countertops, EIFS systems. Use per manufacturer’s recommendations.

Restrictions on Use
Use in well-ventilated area and avoid breathing dust.
Avoid skin contact.

Manufacturer/Supplier Details
National Gypsum Company
2001 Rexford Road
Charlotte, NC 28211

In Canada:
UNIFIX INC. A subsidiary of National Gypsum Company
35, Unifix Street
Bromont, QC J2L 1N5 CANADA

Emergency Telephone Number
Director Quality Services (704) 551-5820 - 24 Hour Emergency Response
(704) 551-5820 - 24 Hour Emergency Response
Website: www.nationalgypsum.com
Website: www.unifixinc.com

Section 2: Hazards Identification

United States (US)
According to OSHA 29CFR 1910.1200 (HCS)

GHS Classification of the substance or mixture
Carcinogenicity - Category 1A - (H-350)
Specific target organ toxicity, repeated exposure – Category 1 (H-372)
Acute toxicity, inhalation - Category 4 (H-332)
Skin corrosion/irritation Category 2 (H315)
Serious eye irritation – Category 2A (H-319)

GHS Label Elements
Pictogram

Signal Word
Danger

Hazard Statements
H-350
May cause cancer.

H-332, 372
Harmful if inhaled. Causes damage to organs (lungs) through prolonged or repeated exposure.

H-315, 319
Causes skin irritation and serious eye irritation

Precautionary Statements
Prevention
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust.
Use personal protective equipment as required. (See Section 8)
Use engineering controls and wet methods to minimize dust.
**Section 2: Hazards Identification (Continued)**

**Response**
If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If on skin, wash with plenty of soap and water. If skin irritation occurs, get medical attention. If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if exposed or concerned.

**Storage**
Store material in a cool, dry, ventilated area, away from excessive heat or sunlight.

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

### Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Common name/ Synonym</th>
<th>Identifiers CAS Number</th>
<th>% (weight)</th>
<th>Impurities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon Dioxide (SiO₂)</td>
<td>Sand, quartz</td>
<td>14808-60-7</td>
<td>&lt;50</td>
<td>Crystalline silica (CAS # 14808-60-7)</td>
</tr>
<tr>
<td>In CANADA- Calcium Carbonate</td>
<td>Limestone, industrial sand</td>
<td>1317-65-3</td>
<td>&lt;50</td>
<td>Crystalline silica (CAS # 14808-60-7)</td>
</tr>
<tr>
<td>Mixture-calcium and aluminum silicates</td>
<td>Portland Cement</td>
<td>65997-15-1</td>
<td>&lt;25</td>
<td>Crystalline silica (CAS # 14808-60-7)</td>
</tr>
<tr>
<td>Mixture-silicates, aluminates</td>
<td>Pozzolan, fly ash</td>
<td>68131-74-8</td>
<td>&lt;25</td>
<td>Crystalline silica (CAS # 14808-60-7)</td>
</tr>
<tr>
<td>Mixture-calcium aluminates</td>
<td>High Alumina Cement</td>
<td>65997-16-2</td>
<td>&lt;6</td>
<td>Crystalline silica (CAS # 14808-60-7)</td>
</tr>
<tr>
<td>Mixture-calcium, aluminum silicates, amorphous silica</td>
<td>Fiberglass scrim or fiberglass mat laminate</td>
<td>65997-17-3</td>
<td>&lt;5</td>
<td>Crystalline silica (CAS # 14808-60-7)</td>
</tr>
<tr>
<td>Calcium Hydroxide</td>
<td>Hydrated lime</td>
<td>1305-62-0</td>
<td>&lt;2</td>
<td>Crystalline silica (CAS # 14808-60-7)</td>
</tr>
</tbody>
</table>

### Section 4: First-Aid Measures

**Inhalation**
Remove exposed individual to fresh air immediately. If breathing difficulty persists, seek medical attention.

**Eye contact**
Do not rub or scratch eyes. Immediately flush eyes with water for 15 minutes. Remove contact lenses (if applicable). Seek medical attention if irritation persists.

**Skin contact**
Flush and wash skin with soap and water. Utilize lotions to alleviate dryness if present. Seek medical attention if irritation persists.

**Ingestion**
This product is not expected to be hazardous and no harmful effects are expected upon ingestion of small amounts. Larger amounts may cause abdominal discomfort or possible obstruction of the digestive tract. Seek medical attention if problems persist.

**Medical Conditions aggravated by exposure**
Pre-existing upper respiratory and lung diseases such as, but not limited to, bronchitis, emphysema and asthma. Pre-existing skin diseases such as, but not limited to, rashes and dermatitis.

**Most important symptoms/effects, acute and delayed:** See Section 11. (Toxicological Information)

### Section 5: Fire-Fighting Measures

**Extinguishing Media**
Dry chemical, foam, water, or extinguishing media appropriate for surrounding fire.

**Unusual Fire and Explosion Hazards**
Mixture poses no fire-related hazard.

**Special hazards arising from the mixture**
None known

**Special Protective Equipment and Precautions for Firefighters**
A SCBA is recommended to limit exposures to combustion products when fighting any fire.
Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Product is an article composite.
General recommendations:
Wear appropriate Personal Protective Equipment. (See Section 8)
Maintain proper ventilation.

Environmental precautions
This product could be toxic to fish due to its high alkalinity from the Portland Cement.
Dispose of in accordance with applicable federal, state, and local regulations.

Methods and materials for containment and cleaning up
Pick-up larger pieces to avoid a tripping hazard.
Sweep or vacuum remaining material into a waste container for disposal.
Use a light water spray to minimize dust generation.

Section 7: Handling and Storage

Precautions for safe handling
Avoid breathing dust.
Minimize generation of dust.
Provide appropriate exhaust ventilation at places where dust is formed.
Avoid contact with eyes, skin and clothing.
Wear recommended personal protective equipment when handling. (See Section 8)

Conditions for safe storage, including any incompatibilities
Store material in a cool, dry, ventilated area, away from excessive heat or sunlight.
Store panels flat to minimize damage.
Do not stack panels too high when storing to minimize the risk of falling.
Avoid contact with strong acids.

Section 8: Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA PEL (mg/m³)</th>
<th>ACGIH TLV (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portland Cement</td>
<td>15 (T) 5 (R)</td>
<td>10 (T)</td>
</tr>
<tr>
<td>High Alumina Cement</td>
<td>15 (T) 5 (R)</td>
<td>10 (T)</td>
</tr>
<tr>
<td>Pozzolan</td>
<td>15 (T) 5 (R)</td>
<td>10 (T)</td>
</tr>
<tr>
<td>Sand</td>
<td>[(10) / (%SiO₂+2)] (R); [(30) / (%SiO₂+2)] (T)</td>
<td>0.025 (R)</td>
</tr>
<tr>
<td>Crystalline Silica (Quartz)¹</td>
<td>[(10) / (%SiO₂+2)] (R); [(30) / (%SiO₂+2)] (T)</td>
<td>0.025 (R)</td>
</tr>
<tr>
<td>Fiberglass Scrim</td>
<td>15 (T) 5 (R)</td>
<td>1 f/cc (R)</td>
</tr>
<tr>
<td>Calcium Hydroxide (Hydrated Lime)</td>
<td>15 (T) 5 (R)</td>
<td>5 (R)</td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>15 (T) 5 (R)</td>
<td>10 (T)</td>
</tr>
</tbody>
</table>

¹ – Present as an impurity in raw materials
T- Total Dust
R- Respirable Dust
Exposure Controls
Appropriate Engineering Controls
Work/Hygiene Practices: Utilize methods to minimize dust production such as cutting with a standard utility knife. Ventilation: Provide local and general exhaust ventilation sufficient to maintain a dust level below the PEL/TLV.

Personal Protective Equipment
Respiratory Protection
A NIOSH approved particulate respirator is recommended in poorly ventilated areas or if the PEL/TLV is exceeded. OSHA’s 29 CFR 1910.134 (Respiratory Protection Standard) must be followed whenever work conditions require respirator use.

Eye Protection
Safety glasses or goggles.

Skin
Gloves, protective clothing and/or barrier creams may be utilized if conditions warrant.

Section 9: Physical and Chemical Properties

(a) Appearance: Gray solid
(b) Odor: Slight organic odor upon opening that dissipates quickly.
(c) Odor threshold: Not available
(d) pH: ~12
(e) Melting point/freezing point: Not Available
(f) Initial boiling point and boiling range: Not Available
(g) Flash point: Not available
(h) Evaporation rate: Not available
(i) Flammability (solid, gas): Not flammable
(j) Upper/lower flammability or explosive limits: Not available
(k) Vapor pressure: Not available
(l) Vapor density: Not available
(m) Relative density: ~1.2
(n) Solubility(ies): Slightly soluble in water
(o) Partition coefficient: n-octanol/water: Not available
(p) Auto-ignition temperature: Not available
(q) Decomposition temperature: Unknown
(r) Viscosity: Not available
(s) VOC (Volatile Organic Compound): N/A

Section 10: Stability and Reactivity

(a) Reactivity: No data available
(b) Chemical stability: Stable in dry environments
(c) Possibility of hazardous reactions: None known
(d) Conditions to avoid (e.g., static discharge, shock, or vibration): Contact with strong acids.
(e) Incompatible materials: Strong acids
(f) Hazardous decomposition products: None known.

Section 11: Toxicological Information

Information on Toxicological effects
Information on likely routes of exposure

Ingestion May cause gastrointestinal irritation.
Inhalation Dust may irritate respiratory system. Chronic exposure may result in lung disease. (See below)
Skin contact May cause irritation, itching or dermatitis. (See below)
Eye contact Contact with dust may cause mechanical irritation.
Symptoms related to the physical, chemical and toxicological characteristics

Acute exposure to airborne dust concentrations in excess of the PEL/TLV may result in coughing, dyspnea, wheezing, and a burning irritation of the nose, throat, and upper respiratory tract, along with possible impaired pulmonary function. Chronic exposures may result in lung disease. (Silicosis and/or lung cancer)

Contact with wet Portland Cement may cause severe irritation, redness, and possible burns. Continued and prolonged contact may result in drying of the skin. Contact with dust or glass fibers may produce itching, rash and/or redness. Repeated or prolonged exposure may result in dermatitis.

Toxicological data

No toxicological data is available for this product. Toxicological information for components of this product listed below.

<table>
<thead>
<tr>
<th>Toxicological Data</th>
<th>Not available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td></td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td></td>
</tr>
<tr>
<td>Skin sensitization</td>
<td></td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td></td>
</tr>
<tr>
<td>Sensitization</td>
<td></td>
</tr>
<tr>
<td>Mutagenicity</td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td></td>
</tr>
</tbody>
</table>

This product contains crystalline silica. (quartz) The International Agency for Research on Cancer (IARC) classifies crystalline silica inhaled in the form of quartz or cristobalite from occupational sources as carcinogenic to humans, Group 1. The National Toxicology Program (NTP) classifies respirable crystalline silica as a substance which may be reasonably anticipated to be a carcinogen. OSHA does not regulate crystalline silica as a human carcinogen.

| Reproductive effects        | Not available |
| Specific target organ toxicity – |               |
| single exposure             |               |
| Aspiration toxicity         |               |

Section 12: Ecological Information

(a) Ecotoxicity (aquatic and terrestrial, where available): This product could be toxic to fish due to its high alkalinity from the Portland Cement. No studies are available.

(b) Persistence and degradability: Unknown

(c) Bioaccumulative potential: Unknown.

(d) Mobility in soil: Unknown

(e) Other adverse effects (such as hazardous to the ozone layer): None known

Section 13: Disposal Considerations

This material is not considered a hazardous waste. Dispose of according to Local, State, Federal, and Provincial Environmental Regulations.

Section 14: Transport Information

This product is not a DOT hazardous material

Shipping Name: Same as product name

ICAO/IATA/IMO: Not applicable

Section 15: Regulatory Information

All ingredients are included on the TSCA inventory.

Federal Regulations

SARA Title III: Not listed under Sections 302, 304, and 313

CERCLA: Not listed

RCRA: Not listed

OSHA: Dust and potential respirable crystalline silica generated during product use may be hazardous.
Section 16: Other Information

SDS Prepared by: National Gypsum Company
2001 Rexford Road
Charlotte, NC  28211

Phone Number:  (704) 551-5820

Date of Preparation: July 16, 2015

Revision indicators and Date
Effective Date Change:  11/01/2017  Supersedes:  9/21/2017

Format Changes: Conforms to OSHA 29CFR 1910.1200 (HCS)
Compliant with the 2015 Canadian Workplace Hazardous Materials Information System
(WHMIS 2015), the Canadian Hazardous Products Act, and the Controlled Products
Regulations. (CPR)

Key to Abbreviations
ACGIH  American Conference of Governmental Industrial Hygienists
CAS  Chemical Abstracts Service Number
CFR  Code of Federal Regulations
DOT  Department of Transportation
EPA  Environmental Protection Agency
HEPA  High Efficiency Particulate Air
HCS  Hazard Communications Standard
HMIS  Hazardous Material Identification System
IARC  International Agency for Research on Cancer
IATA  International Air Transport Association
ICAO  International Civil Aviation Organization
IMO  International Maritime Organization
NIOSH  National Institute for Occupational Safety and Health
NFPA  National Fire Protection Association
NTP  National Toxicology Program
OSHA  Occupational Safety and Health Administration
PEL  Permissible Exposure Limit
PPE  Personal Protective Equipment
TLV  Threshold Limit Value
TSCA  Toxic Substance Control Act
TWA  Time Weighted Average
WHMIS  Workplace Hazardous Materials Information System

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee
or warranty of any kind expressed or implied is made with respect to the information contained herein. This safety data sheet
was prepared to comply with the OSHA Hazard Communication Standard (29 CFR 1910.1200).

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