

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION



Product Identifier PermaBase® , PermaBase DEK® , PermaBase UltraBacker®		WHMIS Classification D2B, E
Product Use and generic description Underlayment for Ceramic Tile on floors, countertops, synthetic stucco or stone veneer systems and roof systems. Gray cementitious material sandwiched between two layers of a fiberglass mesh scrim or a fiberglass mat laminate with a double wrapped edge.		
Manufacturer's Name and address UNIFIX INC. A subsidiary of National Gypsum Company 35, Unifix street Bromont, Qc J2L 1N5		
Phone number 450-534-0955 (8h00 to 17h00)	MSDS Prepared By M-A Mathieu, P.Eng.	Date MSDS Prepared Sept 14, 2009

SECTION 2 — COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous ingredients	% by weight	CAS Number	LD50 of Ingredient <i>(species and route)</i>	LC50 of Ingredient <i>(species)</i>
Portland Cement	10 - 30	65997-15-1	No data available	No data available
Silica, crystalline quartz	30 - 60	14808-60-7	No data available	No data available
Calcium Oxide	5 - 10	1305-78-8	No data available	No data available

Trace Elements: This product is made with Portland cement and pozzolans which are made from materials mined from the earth and processed using energy provided by fuels. Trace amounts of naturally occurring, potentially harmful chemicals might be detected during chemical analysis. Trace constituents may include potassium and sodium sulfate compounds, chromium compounds, and nickel compounds.

SECTION 3 — HAZARDS IDENTIFICATION

Route of Entry <input checked="" type="checkbox"/> Skin contact <input type="checkbox"/> Skin absorption <input checked="" type="checkbox"/> Eye Contact <input checked="" type="checkbox"/> Inhalation <input checked="" type="checkbox"/> Ingestion
Emergency Overview PermaBase® Cement Board Products do not present an inhalation, ingestion, or contact health hazard unless subjected to operations such as sawing, sanding or machining which result in the generation of airborne particulate. Dust generated is alkaline, and could cause corrosive damage to skin, tissues, and eyes. Wear eye and skin protection. This product also contains quartz (crystalline silica) as a naturally occurring contaminant. It is recommended that a NIOSH approved particulate respirator be worn whenever working with this product results in airborne dust exposure exceeding the prescribed limits.
WHMIS Symbols  
Potential Health Effects Inhalation: Acute exposure to airborne dust concentrations in excess of the exposure limits (see table in section 8) 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). (See Section 11 - Toxicological Information). Good housekeeping practices and industrial hygiene monitoring is recommended when the potential for significant exposure exists. Skin Contact: Wet product is alkaline. Contact with this product 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.

Eye Contact: Contact with dust may cause burns and/or mechanical irritation and cause damage to the cornea. Do not wear contact lenses if dust will be generated.

Ingestion: Wet product is alkaline, and may cause chemical burns to the mouth, throat, esophagus and stomach. Gastrointestinal irritation or bleeding may develop.

SECTION 4 — FIRST AID MEASURES

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

Ingestion: Product is not intended to be ingested. Large amounts may cause abdominal discomfort or possible obstruction of the digestive tract. Seek medical attention if problems persist.

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

Eye Contact: Do not rub or scratch eyes. Immediately flush eyes with water for 15 minutes. Seek medical attention to evaluate for burns or scratches.

SECTION 5 — FIRE FIGHTING MEASURES

Flammability <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, under which conditions?	
Not Flammable	Not applicable	
Means of Extinction: Dry chemical, foam, water, fog or spray		
Flashpoint (°C) and Method Not available	Upper Flammable Limit (% by volume) Not applicable	Lower Flammable Limit (% by volume) Not applicable
Auto-ignition Temperature (°C) Not available	Explosion Data — Sensitivity to Impact Not applicable	Explosion Data — Sensitivity to Static Discharge Not applicable
Hazardous Combustion Products None known		

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Leak and Spill Procedures

Wear appropriate Personal Protective Equipment (See Section 8) and maintain proper ventilation.

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.

Dispose of in accordance with applicable federal, provincial, and local regulations.

SECTION 7 — HANDLING AND STORAGE

Handling Procedures and Equipment

Avoid contact with eyes, skin and clothing.

Wear recommended personal protective equipment when handling. (See Section 8)

Avoid breathing dust.

Minimize generation of dust.

Utilize proper lifting techniques when moving product and employ mechanical/ergonomic assistance when possible (i.e. move with forklifts, hold in place with lifts) to minimize the risk of back injury.

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

Store panels flat to minimize damage.

Do not stack panels too high when storing to minimize the risk of falling

SECTION 8 — EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limits

Ingredient	OSHA PEL (mg/m3)	ACGIH TLV (mg/m3)	WHMIS (mg/m3)
Portland cement;	15 (T) 5(R)	10 (T)	10 (T) 5(R)
Silica, crystalline quartz	Respirable: 10 mg/m ³ /(%SiO ₂ + 2) TWA Total: 30 mg/m ³ /(%SiO ₂ + 2) TWA	0.1 (R)	0.1 (R)
Calcium Oxide	5 (T)	2 (T)	2 (T)

(T) = total dust
(R) = respirable dust

Specific Engineering Controls (such as ventilation, enclosed process)
Work/Hygiene Practices: The score and snap method of cutting is recommended. Sawing, drilling or machining will produce dust.

Ventilation: Provide local and general exhaust ventilation to maintain a dust level below the PEL/TLV.

Utilize wet methods, when appropriate, to reduce generation of dust.

Personal Protective Equipment gloves Respirator Eye Footwear Clothing Other

Respiratory Protection: A NIOSH approved particulate respirator is recommended in poorly ventilated areas or if the exposure limits are exceeded (see table above)

Eye Protection: Safety glasses or goggles.

Skin: Wear PVC or nitrile coated gloves and protective clothing. Wash exposed skin and clothing if dust was generated during handling.

Feet: Product is heavy and may injure feet if dropped. Wear CSA approved hard toe footwear.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical State : Solid	Odour and Appearance : Low odor, grey color	Odour Threshold (ppm): Not known
Specific Gravity : 1.2	Vapour Density (air = 1) : Not applicable	Vapour Pressure (mmHg) : Not applicable
Evaporation Rate : Not applicable	Boiling Point (°C) : Not applicable	Freezing Point (°C) : Not applicable
pH : Very alkaline, 10 to 13 approx.	Coefficient of Water/Oil Distribution : Not applicable	Solubility in Water : Not soluble

SECTION 10 — STABILITY AND REACTIVITY

Chemical Stability <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If no, under which conditions?
Incompatibility with Other Substances <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, which ones? Powerful oxidizers: Hydrofluoric acid, fluorine, chlorine trifluoride or oxygen difluoride, manganese trioxide, hydrogen peroxide, acetylene; ammonia, etc.
Dangerous polymerizations? Stable under dry conditions.	
Hazardous Decomposition Products: None known.	

SECTION 11 — TOXICOLOGICAL INFORMATION

Effects of Acute Exposure: There have been reports of irritation and burns to mucus membranes of the eyes and respiratory tract upon acute exposure to dusts in excess of the recommended limits.	
Effects of Chronic Exposure: Crystalline silica is a significant component of the earth's crust, and many workers in a wide range of industries are exposed to it, usually in the form of respirable quartz or, less frequently, cristobalite. Chronic exposure to crystalline silica (a naturally occurring contaminant) in the respirable size has been shown to cause silicosis, a debilitating lung disease. International Agency for Research on Cancer (IARC) has designated crystalline silica as a known human carcinogen. Exposure to crystalline silica has also been associated with an increased risk of developing tuberculosis and other nonmalignant respiratory diseases, as well as renal and autoimmune respiratory diseases.	
Irritancy of Product Possible irritation and burns to mucus membranes of the eyes and respiratory tract.	
Skin Sensitization This product is made with Portland Cement which may contain hexavalent chromium (chromium ⁺⁶) salts. People with unusual (hyper) sensitivity may experience skin sensitization.	Respiratory Sensitization Pre-existing upper respiratory and lung diseases conditions may lead to respiratory sensitization.
Carcinogenicity — IARC This product may contain crystalline silica, 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.	Carcinogenicity — ACGIH The American Conference of Governmental Industrial Hygienists (ACGIH) classifies crystalline silica, quartz, as a suspected human carcinogen (Group A2).
Reproductive Toxicity : None known	Teratogenicity: None known
Embryotoxicity : None known	Mutagenicity: None known
Name of Synergistic Products/Effects: None known	

SECTION 12 — ECOLOGICAL INFORMATION

This product could be toxic to fish due to its high alkalinity. No know unusual toxicity to plants or animals. No studies are available. This product is not biodegradable.

SECTION 13 — DISPOSAL CONSIDERATIONS

Waste Disposal

Dispose of according to Local, Federal, and Provincial Environmental Regulations. Recycle this product and its packaging if possible.

SECTION 14 — TRANSPORT INFORMATION

Special Shipping Information: Use tarps and rigid protective corners to protect the product against damages by wind and binding straps.	PIN : Not applicable
TDG : Not dangerous, not classified.	DOT: Not hazardous
IMO : Not dangerous, not classified.	ICAO : General cargo, not dangerous.

SECTION 15 — REGULATORY INFORMATION

WHMIS Classification: D2B, E

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

SECTION 16 — OTHER INFORMATION

ACGIH - American Conference of Governmental Industrial Hygienists (USA)
 CAS - Chemical Abstracts Service
 CSA : Canadian Standard Association.
 IARC - International Agency for Research on Cancer
 ICAO: International Civil Aviation Organization
 IMO: International Maritime Organization
 NFPA: National Fire Protection Association (USA)
 OSHA - Occupational Safety and Health Administration (USA)
 PEL - Permissible Exposure Limit
 PIN : Product Identification Number (Transport Canada)
 TDG: Transport Dangerous Goods Directorate
 TLV's - Threshold Limit Values
 TWA: Time-Weighted Average

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