SECTION 1: Identification

1.1. Product identifier
Product name: Penetron®, Penecrete Mortar™, Peneplug®, Penetron Plus®
Product code: Not available.

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture: Concrete protection and permeability reduction

1.3. Details of the supplier of the safety data sheet
Penetron International, Ltd.
45 Research Way, Suite 203
East Setauket, New York 11733 – USA
T +1 (631) 941-9700
info@penetron.com - penetron.com

1.4. Emergency telephone number
Emergency number: CHEMTREC: US and Canada: 1-800-424-9300; International +1 703-527-3887

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture
GHS-US classification
Skin Irritation 2
Serious Eye Damage 1
Carcinogenicity 1A
Specific Target Organ Toxicity - Repeated Exposure 1

2.2. Label elements
GHS-US labelling
Hazard pictograms (GHS-US): ☐

Signal word (GHS-US): Danger
Hazard statements (GHS-US): Causes skin irritation. Causes serious eye damage. May cause cancer. Causes damage to lungs through prolonged or repeated exposure.
Precautionary statements (GHS-US): Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. If exposed or concerned: Get medical advice/ attention. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. 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. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards
No additional information available.

2.4. Unknown acute toxicity (GHS-US)
Not applicable.

SECTION 3: Composition/information on ingredients

3.1. Substance
Not applicable.
3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement, portland, chemicals</td>
<td>(CAS No) 65997-15-1</td>
<td>50 - 70</td>
</tr>
<tr>
<td>Quartz</td>
<td>(CAS No) 14808-60-7</td>
<td>0 - 50</td>
</tr>
<tr>
<td>CTS-15-1</td>
<td>Trade Secret</td>
<td>3 – 37</td>
</tr>
</tbody>
</table>

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after 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.

First-aid measures after skin contact: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if you feel unwell.

First-aid measures after eye contact: 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.

First-aid measures after 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 if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation: May cause respiratory tract irritation. May cause burns in the presence of moisture.

Symptoms/injuries after skin contact: Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause burns in the presence of moisture.

Symptoms/injuries after eye contact: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Symptoms/injuries after ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting. May cause burns in the presence of moisture.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Treat for surrounding material.

Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Products of combustion may include, and are not limited to: oxides of carbon.

5.3. Advice for firefighters

Protection during firefighting: 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

General measures: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.2. Methods and material for containment and cleaning up

For containment: Contain and/or absorb spill with inert material (e.g. sand, vermiculite), 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. Avoid generating dust. Provide ventilation.

6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Avoid contact with skin and eyes. Do not breathe dust. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke.

Hygiene measures: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.
7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Keep out of the reach of children. Keep container tightly closed. Store in original container in a dry, cool, well-ventilated area. Keep out of direct sunlight. Keep away from food and drink. Store locked up.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Material</th>
<th>ACGIH TWA (mg/m³)</th>
<th>OSHA PEL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement, portland, chemicals (65997-15-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>1 mg/m³ (no asbestos and &lt;1% crystalline silica, respirable fraction)</td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td>15 mg/m³ (total)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 mg/m³ (resp)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50 mppcf (&lt;1% Crystalline silica)</td>
<td></td>
</tr>
<tr>
<td>Quartz (14808-60-7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>0.025 mg/m³ (respirable fraction)</td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td>(10 mg/m³)/(%SiO₂+2) (resp)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(30 mg/m³)/(%SiO₂+2) (total)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(250)/(%SiO₂+5) mppcf (resp)</td>
<td></td>
</tr>
<tr>
<td>CTS-15-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

8.2. Exposure controls

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

Hand protection: Protective gloves made of rubber or PVC.

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

Skin and body protection: Wear suitable 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).

Environmental exposure controls: Maintain levels below Community environmental protection thresholds.

Other information: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Powder</td>
</tr>
<tr>
<td>Color</td>
<td>Gray</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>12.5 (10% solution in water)</td>
</tr>
<tr>
<td>Melting point</td>
<td>&gt; 1000 °C (1832 °F)</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Vapor pressure : No data available
Relative density : No data available
Relative vapor density at 20 °C : No data available
Solubility : No data available
Partition coefficient: n-octanol/water : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available

9.2. Other information
No additional information available.

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.

10.3. Possibility of hazardous reactions
No dangerous reaction known under conditions of normal use. Reacts with water to form alkaline solution

10.4. Conditions to avoid

10.5. Incompatible materials
Strong acids.

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
Acute toxicity : Not classified

<table>
<thead>
<tr>
<th>Penetron®, Penecrete Mortar™, Peneplug®, Penetron Plus®</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
</tr>
<tr>
<td>LC50 inhalation rat</td>
</tr>
<tr>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>No data available</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitization : Based on available data, the classification criteria are not met.
Germ cell mutagenicity : Based on available data, the classification criteria are not met.
Carcinogenicity : May cause cancer.

Quartz (14808-60-7)
IARC group : 1 - Carcinogenic to humans
National Toxicology Program (NTP) Status : 2 - Known Human Carcinogens
Reproductive toxicity : Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure) : Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure) : Causes damage to lungs through prolonged or repeated exposure.
Aspiration hazard : Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation : May cause respiratory tract irritation. May cause burns in the presence of moisture.
Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause burns in the presence of moisture.
Symptoms/injuries after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
Penetron®, Penecrete Mortar™, Peneplug®, Penetron Plus®
Safety Data Sheet

Symptoms/injuries after ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting. May cause burns in the presence of moisture.

SECTION 12: Ecological information

12.1 Toxicity
Ecology - general: No known significant effects or critical hazards.

12.2 Persistence and degradability
Penetron®, Penecrete Mortar™, Peneplug®, Penetron Plus®
Persistence and degradability: Not established.

12.3 Bioaccumulative potential
Penetron®, Penecrete Mortar™, Peneplug®, Penetron Plus®
Bioaccumulative potential: Not established.

12.4 Mobility in soil
No additional information available.

12.5 Other adverse effects
Effect on the global warming: No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Waste disposal recommendations: This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

SECTION 14: Transport information

14.1 Department of Transportation (DOT)
In accordance with DOT: Not regulated for transport

14.2 Additional information
Other information: No supplementary information available.
Special transport precautions: Do not handle until all safety precautions have been read and understood.

SECTION 15: Regulatory information

15.1 US Federal regulations
All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

15.2 US State regulations
Penetron®, Penecrete Mortar™, Peneplug®, Penetron Plus®
State or local regulations: This product contains a chemical known to the State of California to cause cancer.

SECTION 16: Other information

Date of issue: 01/22/1981
Revision date: 10/23/2015
Other information: None.

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