SAFETY DATA SHEET

1. Identification
Product identifier Permacolor Select
Other means of identification Not available.
Recommended use Grout.
Recommended restrictions Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards.

Manufacturer/ Importer/ Supplier/ Distributor information Company
Name LATICRETE MIDDLE EAST LLC
Address P.O. Box. 86028, Ras Al Khaimah, United Arab Emirates
Telephone +971 7 244 6396
Contact person Mohmed Rafiq. M
Website www.laticrete.com www.laticrete.me

Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

2. Hazard(s) identification
Physical hazards Not classified.
Health Hazards Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 1
Sensitization, skin Category 1
Carcinogenicity Category 1A
Reproductive toxicity Category 1B
Specific Target Organ Toxicity, Repeated Exposure Category 2 (Lung)

OSHA defined hazards Not classified.

Label elements

Signal word Danger
Hazard statement Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. May cause cancer. May damage fertility or the unborn child. May cause damage to organs (Lung) through prolonged or repeated exposure.

Precautionary statement
Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.
Response If exposed or concerned: Get medical advice/attention. If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. 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.
Storage Store locked up.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)  
None known.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica Sand</td>
<td>14808-60-7</td>
<td>55 - 65</td>
</tr>
<tr>
<td>Calcium aluminate cement</td>
<td>65997-16-2</td>
<td>22 - 25</td>
</tr>
<tr>
<td>Calcium sulfate</td>
<td>7778-18-9</td>
<td>5 - 7</td>
</tr>
<tr>
<td>Portland Cement</td>
<td>65997-15-1</td>
<td>1 - 4</td>
</tr>
<tr>
<td>Calcium sulfate hemihydrate</td>
<td>26499-65-0</td>
<td>1 - 2</td>
</tr>
<tr>
<td>Lithium Carbonate</td>
<td>554-13-2</td>
<td>0.1 - 0.3</td>
</tr>
</tbody>
</table>

Composition comments: All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation  
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

Skin contact  
Wash off with soap and plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eye contact  
Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion  
Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed  
Rash. Coughing. Irritant effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed  
Provide general supportive measures and treat symptomatically. Symptoms may be delayed.

General information  
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. IF exposed or concerned: Get medical advice/attention.

5. Fire-fighting measures

Suitable extinguishing media  
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media  
None known.

Specific hazards arising from the chemical  
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters  
Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Fire fighting equipment/instructions  
In case of fire and/or explosion do not breathe fumes.

General fire hazards  
No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures  
Keep unnecessary personnel away. Keep upwind. Avoid formation of dust. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation.

Methods and materials for containment and cleaning up  
Stop the flow of material, if this is without risk. Sweep or shovel up material and place in a clearly labeled container for waste. Collect dust using a vacuum cleaner. Following product recovery, flush area with water.

Environmental precautions  
Avoid discharge into drains, water courses or onto the ground.
7. Handling and storage

Precautions for safe handling

Do not handle until all safety precautions have been read and understood. Minimize dust generation and accumulation. Wear appropriate personal protective equipment. Do not breathe dust. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in a cool, dry place out of direct sunlight.

8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium sulfate (CAS 7778-18-9)</td>
<td>PEL</td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Calcium sulfate hemihydrate (CAS 26499-65-0)</td>
<td>PEL</td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
<tr>
<td>Portland Cement (CAS 65997-15-1)</td>
<td>PEL</td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
</tbody>
</table>

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

US. OSHA Table Z-3 (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portland Cement (CAS 65997-15-1)</td>
<td>TWA</td>
<td>50 mppcf</td>
<td></td>
</tr>
<tr>
<td>Silica Sand (CAS 14808-60-7)</td>
<td>TWA</td>
<td>0.3 mg/m3</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.1 mg/m3</td>
<td>Respirable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.4 mppcf</td>
<td>Respirable.</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium sulfate (CAS 7778-18-9)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Inhalable fraction.</td>
</tr>
<tr>
<td>Portland Cement (CAS 65997-15-1)</td>
<td>TWA</td>
<td>1 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Silica Sand (CAS 14808-60-7)</td>
<td>TWA</td>
<td>0.025 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium sulfate (CAS 7778-18-9)</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td>Respirable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m3</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m3</td>
<td>Respirable.</td>
</tr>
<tr>
<td>Calcium sulfate hemihydrate (CAS 26499-65-0)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m3</td>
<td>Respirable.</td>
</tr>
<tr>
<td>Portland Cement (CAS 65997-15-1)</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td>Respirable.</td>
</tr>
<tr>
<td>Silica Sand (CAS 14808-60-7)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.05 mg/m3</td>
<td>Respirable dust.</td>
</tr>
</tbody>
</table>

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.
Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment

**Eye/face protection**
Wear safety glasses with side shields (or goggles).

**Skin protection**
- **Hand protection**
  Wear chemical-resistant, impervious gloves.
- **Other**
  Wear appropriate chemical resistant clothing.
- **Respiratory protection**
  Wear a dust mask if dust is generated above exposure limits.
- **Thermal hazards**
  Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**
Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

**Appearance**
- **Physical state**
  Solid.
- **Form**
  Powder.
- **Color**
  Colored.

**Odor**
Not available.

**Odor threshold**
Not available.

**pH**
Not available.

**Melting point/freezing point**
Not available.

**Initial boiling point and boiling range**
Not available.

**Flash point**
Not flammable or combustible.

**Evaporation rate**
Not available.

**Flammability (solid, gas)**
Not available.

**Upper/lower flammability or explosive limits**
- **Flammability limit - lower (%)**
  Not available.
- **Flammability limit - upper (%)**
  Not available.
- **Explosive limit - lower (%)**
  Not available.
- **Explosive limit - upper (%)**
  Not available.

**Vapor pressure**
Not available.

**Vapor density**
Not available.

**Relative density**
Not available.

**Solubility(ies)**
- **Solubility (water)**
  Insoluble in water.
- **Partition coefficient (n-octanol/water)**
  Not available.

**Auto-ignition temperature**
Not available.

**Decomposition temperature**
Not available.

**Viscosity**
Not available.

10. Stability and reactivity

**Reactivity**
The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability**
Material is stable under normal conditions.

**Possibility of hazardous reactions**
No dangerous reaction known under conditions of normal use.
Conditions to avoid
Contact with incompatible materials.
Incompatible materials
Strong oxidizing agents.
Hazardous decomposition products
No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure
Inhalation
Dust irritates the respiratory system, and may cause coughing and difficulties in breathing.
Skin contact
Causes skin irritation. May cause an allergic skin reaction. Prolonged contact with wet cement/mixture may cause burns.
Eye contact
Causes serious eye damage. Prolonged contact with wet cement/mixture may cause burns.
Ingestion
Swallowing may cause gastrointestinal irritation.

Symptoms related to the physical, chemical and toxicological characteristics
Rash. Coughing. Irritant effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Prolonged exposure may cause chronic effects.

Information on toxicological effects
Acute toxicity
May cause respiratory irritation.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium sulfate (CAS 7778-18-9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>&gt; 3.26 mg/l, 4 Hours</td>
</tr>
<tr>
<td>Oral</td>
<td>Mouse</td>
<td>4704 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 1581 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Causes skin irritation.

Serious eye damage/eye irritation
Causes serious eye damage.

Respiratory or skin sensitization

<table>
<thead>
<tr>
<th>Sensitization</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory sensitization</td>
<td>No data available.</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>May cause an allergic skin reaction.</td>
</tr>
</tbody>
</table>

Germ cell mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity
May cause cancer. In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However, in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk...." (SCOEL SUM Doc 94-final, June 2003)

IARC Monographs. Overall Evaluation of Carcinogenicity
Silica Sand (CAS 14808-60-7) 1 Carcinogenic to humans.

NTP Report on Carcinogens
Silica Sand (CAS 14808-60-7) Known To Be Human Carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.

Reproductive toxicity
May damage fertility or the unborn child.

Specific target organ toxicity - single exposure
Not classified.
12. Ecological information

Ecotoxicity Not expected to be harmful to aquatic organisms.
Persistence and degradability No data is available on the degradability of this product.
Bioaccumulative potential No data available for this product.
Mobility in soil The product is not mobile in soil.
Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Dispose of contents/container in accordance with local/regional/national/international regulations. Do not contaminate ponds, waterways or ditches with chemical or used container.
Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT Not regulated as dangerous goods.
IATA Not regulated as dangerous goods.
IMDG Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code This substance/mixture is not intended to be transported in bulk.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not regulated.
CERCLA Hazardous Substance List (40 CFR 302.4) Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA) Immediate Hazard - Yes
Hazard categories Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance Not listed.
SARA 311/312 Hazardous chemical Yes
SARA 313 (TRI reporting) Not regulated.
Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations
WARNING: This product contains chemical(s) known to the State of California to cause birth defects or other reproductive harm.

US. Massachusetts RTK - Substance List
Calcium sulfate (CAS 7778-18-9)
Calcium sulfate hemihydrate (CAS 26499-65-0)
Lithium Carbonate (CAS 554-13-2)
Portland Cement (CAS 65997-15-1)
Silica Sand (CAS 14808-60-7)

US. New Jersey Worker and Community Right-to-Know Act
Calcium sulfate (CAS 7778-18-9)
Calcium sulfate hemihydrate (CAS 26499-65-0)
Lithium Carbonate (CAS 554-13-2)
Portland Cement (CAS 65997-15-1)
Silica Sand (CAS 14808-60-7)

US. Pennsylvania Worker and Community Right-to-Know Law
Calcium sulfate (CAS 7778-18-9)
Calcium sulfate hemihydrate (CAS 26499-65-0)
Lithium Carbonate (CAS 554-13-2)
Portland Cement (CAS 65997-15-1)
Silica Sand (CAS 14808-60-7)

US. Rhode Island RTK
Lithium Carbonate (CAS 554-13-2)

US. California Proposition 65

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
Lithium Carbonate (CAS 554-13-2)
Silica Sand (CAS 14808-60-7)

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 16-October-2014
Revision date -
Version # 01
NFPA ratings

References
- HSDB® - Hazardous Substances Data Bank
- Registry of Toxic Effects of Chemical Substances (RTECS)

Disclaimer
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