SAFETY DATA SHEET

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product: Kiln Wash
Product Use: A protective coating applied to kiln shelves to ease removal of glaze drips.
Date Prepared: Aug. 3, 2017

Manufacturer and Supplier:
The Pottery Supply House Limited
1120 Speers Road
Oakville, ON, Canada   L6L 2X4
Tel.: 1-800-465-8544
Emergency Tel.: Not available

SECTION 2. HAZARDS IDENTIFICATION

Classification:
Carcinogen Category 1A
Specific Target Organ Toxicity – Repeated Exposure Category 1

Warning: Contains crystalline silica.
May cause cancer by inhalation.
Causes damage to lungs through prolonged or repeated exposure by inhalation.
Do not breathe dust, mist or fume.
In case of inadequate ventilation, wear respiratory protection.

Emergency Overview: Not acutely hazardous. Chronic exposure to respirable particulates may cause lung disease.

SECTION 3. COMPOSITION INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS#</th>
<th>Percentage</th>
<th>LD 50</th>
<th>LC 50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystalline silica (quartz)</td>
<td>14808-60-7</td>
<td>51</td>
<td>&gt;22,500 mg/kg Oral, Rat</td>
<td>Not available</td>
</tr>
<tr>
<td>Kaolin clay(^1)</td>
<td>1332-58-7</td>
<td>49</td>
<td>Not available</td>
<td>Not available</td>
</tr>
</tbody>
</table>

1. Aluminum silicate mineral.

SECTION 4. FIRST AID MEASURES

Procedures
Skin contact (mechanical irritant): Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use. If symptoms persist, call a physician.
Eye contact (mechanical irritant): Wash immediately with plenty of water. If irritation persists, seek medical attention.
Inhalation: No specific first-aid is generally necessary since the adverse health effects associated with exposure to crystalline silica (quartz) result from chronic exposures.
Ingestion: Only if victim is conscious, give plenty of water. Do not induce vomiting. Consult a physician if necessary.

SECTION 5. FIRE FIGHTING MEASURES

Conditions of flammability: Not flammable.
Extinguishing media, means of extinction: Product is not flammable or combustible. Use extinguishing media appropriate for surrounding fire.
Specific hazards arising from the product: None.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Procedures to be followed in case of leak or spill: Discard any product, residue, disposable container or liner in compliance with regulatory requirements.

SECTION 7. HANDLING AND STORAGE

Handling procedures and equipment: Avoid dust/mist formation. Do not breathe dust or mist. If spraying, use adequate
exhaust ventilation. Keep airborne dust/mist concentrations below permissible exposure limits. Wear a respirator approved for silica dust when mixing with water and when applying by spray. Practice good housekeeping. Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment.

Storage: No special requirement.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits: TWA (Ontario)

<table>
<thead>
<tr>
<th>Substance</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystalline silica (quartz)</td>
<td>0.1 mg/m³ (respirable)</td>
</tr>
<tr>
<td>Kaolin</td>
<td>2 mg/m³</td>
</tr>
</tbody>
</table>

Specific engineering controls to be used: Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s). Ensure that eye washing facilities are nearby. If spraying, use a ventilated spray booth to minimize exposure to respirable mist.

Personal protective equipment to be used: In case of exposure to dust generated by mixing or cleaning kiln furniture or to sprayed mist, and in any case if such exposure is above regulatory limits (see above), wear a personal respirator.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Powdered solid.
Odour and appearance: Opaque, white powder with no odour.
Odour threshold: Not applicable.
Specific gravity: Not available.
Vapour pressure: Not applicable.
Vapour density: Not applicable.
Evaporation rate: Not available.
Boiling point: >1600°C
Freezing point: Not applicable.
Decomposition temperature: Not available.
PH: Not available.
Solubility: Insoluble in water.
Partition coefficient: Unavailable.
Viscosity: Not applicable.
Coefficient of water/oil distribution: Not available.
Flash point and method of determination: Not applicable.
Flammability: Not flammable.
Upper flammable limit: Not applicable.
Lower flammable limit: Not applicable.
Auto-ignition temperature: Not applicable.

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Not reactive under normal use conditions.
Chemical stability: Stable under normal use conditions.
Conditions to avoid: Contact with powerful oxidizing agents
Incompatible materials: Powerful oxidizing such as fluorine, chlorine trifluoride, and oxygen difluoride
Hazardous decomposition products: None if stored normally. When exposed to high temperatures, free quartz can change crystal structure to form tridymite (above 870°C) or cristobalite (above 1470°C) which are greater respiratory hazards than quartz. (Tridymite and cristobalite (TWA-TLV) =0.025 mg/m³ .)
Possibility of hazardous reactions: Unlikely in normal use.

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects:
Route of entry: **Skin contact:** May cause skin irritation.
**Skin absorption:** Not absorbed through the skin.
**Eye contact:** May cause abrasion of the cornea.
**Inhalation:** Contains crystalline silica (quartz). Chronic exposure may cause silicosis, cancer and other disorders.
**Ingestion:** Not acutely hazardous. May cause gastrointestinal upset.

**Effects of acute exposure to product:** No effects expected.
**Effects of chronic exposure to product:** Respirable crystalline silica (quartz) can cause:
A. **SILICOSIS** The major concern is silicosis, caused by the inhalation and retention of respirable crystalline silica dust. Chronic or Ordinary Silicosis is the most common form of silicosis, and can occur after many years of exposure to relatively low levels of airborne respirable crystalline silica dust. Symptoms, if present, are shortness of breath, wheezing, cough and sputum production and may be associated with decreased and disabling lung function and death. It may lead to heart disease secondary to the lung disease.
B. **CANCER IARC** - The International Agency for Research on Cancer ("IARC") concluded that there was "sufficient evidence in humans for the carcinogenicity of crystalline silica in the forms of quartz or cristobalite from occupational sources".
C. **AUTOIMMUNE DISEASES** Several studies have reported excess cases of several autoimmune disorders, -- scleroderma, systemic lupus erythematosus, rheumatoid arthritis -- among silica-exposed workers.
D. **TUBERCULOSIS** Individuals with silicosis are at increased risk to develop pulmonary tuberculosis, if exposed to persons with tuberculosis.
E. **KIDNEY DISEASE** Several studies have reported excess cases of kidney diseases, including end stage renal disease, among silica-exposed workers.
F. **NON-MALIGNANT RESPIRATORY DISEASES** There are studies that disclose an association between dusts found in various mining occupations and non-malignant respiratory diseases including chronic bronchitis, emphysema and small airways disease, particularly among smokers.

**Irritancy of the product:** Not a likely irritant.
**Sensitization of the product:** No information available.
**Carcinogenicity of the product:** Crystalline silica (quartz) inhaled from occupational sources is classified by IARC as carcinogenic to humans.
**Reproductive toxicity:** No information available.
**Teratogenicity:** No information available.
**Mutagenicity:** No information available.
**Name of toxicologically synergistic products:** None known.

**LD50:** Not established for this product. See Section 3 for information on ingredients.
**LC50:** Not established for this product. See Section 3 for information on ingredients.

**SECTION 12. ECOLOGICAL INFORMATION**

No data available for this product. No specific adverse effect known.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Waste disposal:** Waste must be disposed of in accordance with federal, provincial and local environmental control regulations.

**SECTION 14. TRANSPORT INFORMATION**

**Special shipping information:** None

**SECTION 15. REGULATORY INFORMATION**

This product has been classified
**Carcinogen Category 1A**
**Specific Target Organ Toxicity – Repeated Exposure Category 1**
in accordance with the hazard criteria of WHMIS 2015 and the SDS contains all of the information required by those regulations.
SECTION 16. OTHER INFORMATION

Preparation information: Prepared by Jon Walls.
Contact information:
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e-mail: jwalls@psh.ca
Date of preparation: Aug. 3, 2017

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