SAFETY DATA SHEET

Trinity Ceramic Supply
9016 Diplomacy Row
Dallas, TX 75247
(214) 631-0540

1/01/2018
Chemical Name: Kiln Wash

SECTION 1- IDENTIFICATION

Product identifier

Other names: kiln wash
Recommended Use: Prevent ceramic glazes from sticking to kiln shelves
Restrictions for Use: Commercial Use only, not for Human Consumption
Manufacturer Name: Trinity Ceramic Supply, Inc
Address: 9016 Diplomacy Row, Dallas, TX 75247
Phone: (214) 631-0540 Fax: 214-637-1463

SECTION 2- HAZARD(S) IDENTIFICATION

Hazardous Classification: OSHA Carcinogenicity (Inhalation) Category 1A

OSHA/HCS Staus- This material is considered hazardous by the OSHA Hazard Communication standard (29 CFR 1910.1200)
See Section 16 for OSHA, IARC and NTP carcinogen listings
OSHA – specific target organ toxicity (repeated exposure) (respiratory tract)(inhalation)- Category 1

Label Elements:

DANGER

May cause cancer by Inhalation.
Causes damage to lungs through prolonged or repeated exposure by inhalation.
SAFETY DATA SHEET

Klin Wash

SECTION 2 Cont.

Response: If exposed or concerned: get medical advice

Disposal: Dispose of contents/containers in accordance with local regulation

Prevention:

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Do not breathe dust
- Do not eat, drink or smoke when using this product
- Wear protective gloves, and safety glasses or goggles
- Wear NIOSH Approved respiratory protection

SECTION 3- COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystalline Silica</td>
<td>14808-60-7</td>
</tr>
<tr>
<td>Kaolinite</td>
<td>1332-58-7</td>
</tr>
<tr>
<td>Alumina hydrate</td>
<td>21645-51-2</td>
</tr>
</tbody>
</table>

SECTION 4 FIRST AID MEASURES

Inhalation: First Aid is generally not required. If irritation develops from breathing dust, move the person from the overexposure and seek medical attention if needed.

Skin Contact: Wash with soap and water. Broken skin can be cleansed with soap and water.

Eye Contact: Wash immediately with clean water or saline solution; if irritation or redness develops seek medical attention.

Ingestion: Material is considered harmless; do not induce vomiting

4.2 Most important symptoms:

- Inhalation: Symptoms of acute accidental exposure are non-specific and similar to inhalation of any dust that is not toxic; inhalation of dust may cause respiratory tract irritation. Symptoms may include coughing, sore throat, nasal congestion, sneezing, or difficulty breathing. Prolonged inhalation of respirable crystalline silica above certain concentrations may cause lung disease, including silicosis and lung cancer.
- Eye contact: Prolonged eye contact may cause eye irritations and redness.
- Skin Contact: Prolonged exposure may cause mechanical irritation.

SECTION 5 FIRE-FIGHTING MEASURES
Flammable properties: Material is non-flammable
Suitable (and unsuitable) extinguishing media: Use extinguishing media appropriate for surrounding fire
Specific hazards arising from the material: Product is non-flammable, combustible or explosive
Special Equipment and Precautions for firefighters: None required

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Wear protective clothing and respiratory protection (see section 8). Avoid generating dust during cleanup

Environmental Precautions: No specific precautions. Report releases to regulatory authorities if required by state or local regulations.

Methods and materials for containment and cleaning up: Avoid dry sweeping. Do not use compressed air to clean spilled material. Use water spraying/flushing or HEPA filtered vacuum cleaning system or wet before sweeping. Dispose of in closed containers.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling
Avoid generating dust. Do not breathe dust. Do not rely on your sight to determine if dust is in the air. Respirable crystalline silica dust may be in the air without a visible dust cloud. Use adequate ventilation and dust collection to reduce respirable crystalline silica dust levels to below the permissible exposure limit (PEL). Maintain and test ventilation and dust collection equipment. Use all available work practices to control dust exposures, such as water sprays.

Where necessary to reduce exposure below PEL, where approved respiratory equipment (See section 8)

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>NIOSH REL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystalline silica</td>
<td>10 mg/m³</td>
<td>0.025 mg/m³ TWA (respirable dust)</td>
<td>0.05 mg/m³ TWA (respirable dust)</td>
</tr>
<tr>
<td></td>
<td>% SiO₂ +2 TWA (respirable dust)</td>
<td>30 mg/m³</td>
<td>%SiO₂ +2 TWA (total dust)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>NIOSH REL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaolinite</td>
<td>5 mg/m³ (respirable)</td>
<td>15 mg/m³ (total)</td>
<td></td>
</tr>
</tbody>
</table>

If crystalline silica is heated to more than 870 degrees C, quartz can change to a form of...
crystalline silica known as tridymite, if crystalline silica is heated to more than 1470 degrees C, quartz can change to a form of crystalline silica known as cristobolite. The OSHA PEL for crystalline silica known as tridymite or cristobolite is one-half the OSHA PEL for crystalline silica (quartz).

Engineering Controls: Ventilation: Use exhaust ventilation, if required, to maintain dust concentration below the recommended exposure limits.

Personal Protective Equipment:
Respiratory Protection: Where there is a potential for airborne exposure, use a MSHA/NIOSH or OSHA/NIOSH approved respirator.
Eyes/face: Wear appropriate safety goggles.
Protective clothing: Wear appropriate chemical resistant clothing. Contaminated clothing should be removed and laundered before reuse.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): White to tan powder.
Odor: None.
Odor threshold: Not applicable.

Boiling Point: Not applicable.
Decomposition: None.
LEL: Not applicable.
Vapor Pressure: Not Applicable.
Density: Not applicable.
Water solubility: None.
Viscosity: Not applicable.
Sublimation Point: Not applicable.

SECTION 10 STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.
Chemical stability: stable.
Possibility of hazardous reactions: Hazardous Polymerization will not occur.
Conditions to avoid: Avoid generation of dust.
Incompatible materials: None known.
Hazardous decomposition products: When exposed to high temperatures, quartz will change structure to form tridymite and cristobolite which have higher health hazards than quartz.

SECTION 10: TOXICOLOGICAL INFORMATION

Acute effects of exposure:
Inhalation: Inhalation of dust may cause respiratory tract irritation. Symptoms of exposure may include cough, sore throat, nasal congestion, sneezing or shortness of breath.

Ingestion: If dust is swallowed it may irritate the mouth and throat.

Skin Contact: No adverse effects are expected.

Eye contact: Particulates may cause abrasive injury.

Chronic effects: Prolonged inhalation of respirable crystalline silica may cause lung disease, silicosis, lung cancer and other effects as indicated below.

The method of exposure that can lead to the adverse health effects listed below is inhalation:

Chronic or Ordinary silicosis is the most common form of silicosis, and can occur after many years (10 to 20 or more) of prolonged, repeated inhalation of relatively low levels of airborne respirable crystalline silica dust. It is further defined as either simple or complicated silicosis. Simple is characterized as lung lesions less than 1 cm in diameter, primarily in the upper lung zones. Often, simple silicosis is not associated with symptoms, detectable changes in lung function or disability. Simple Silicosis may be progressive and may develop into complicated silicosis or progressive massive fibrosis. Complicated Silicosis is characterized by lung lesions in excess of 1 cm in diameter. Complicated silicosis symptoms, if present, may include shortness of breath, and cough. Complicated silicosis may be associated with decreased lung function and may be disabling. Advanced complicated silicosis may lead to death. Advanced silicosis can result in heart disease secondary to the lung disease.

Accelerated Silicosis can occur with prolonged repeated inhalation of respirable crystalline silica over a relatively short period of time; the lung lesions can occur within 5 years of initial exposure. Progression can be rapid. Accelerated silicosis is similar to chronic or ordinary silicosis, except that lung lesions appear earlier and progress is more rapid.

Acute Silicosis can occur after the repeated inhalation of very high concentrations of respirable crystalline silica over a short period of time, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough, weakness and weight loss. Acute silicosis is fatal.

B. Cancer

IARC concluded that "crystalline silica in the form of quartz or cristobolita dust is carcinogenic to humans (Group 1)" for further information on the IARC evaluation see IARC monographs in the evaluation of Carcinogenic Risks to Humans, Volume 100C, " A review of Human Carcinogens: Arsenic, Metals, fibers and Dusts" (2011).

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 tuberculosis bacteria. Individuals with chronic silicosis have a three fold increased risk of contracting tuberculosis than similar individuals without silicosis.
E. Kidney Disease
Several studies have reported excess cases of kidney disease, including end stage renal disease, among silica exposed workers.

SECTION 12 ECOLOGICAL INFORMATION

Exotoxicity: Crystalline silica is not known to be exotoxic
Persistence and degradability: not degradable
Bioaccumulative potential: No information for the product
Mobility in soil: material is insoluble in water, not mobile in soil

SECTION 13 DISPOSAL CONSIDERATIONS

Refer to section 8, regarding personal protection employed when disposing of material
Discard any product, residue, disposable container in full compliance with federal, state and local regulations

SECTION 14 TRANSPORT CONSIDERATIONS

UN number: None
DOT classification: Not regulated
IMO classification: not regulated
IMDG Code: this material is not considered to be a marine pollutant
Transport Hazard Classes: None
Environmental Hazards: None

SECTION 15 REGULATORY INFORMATION

UNITED STATES (FEDERAL AND STATE)
TSCA Status: Crystalline silica appears on the EPA TSCA Inventory under the CAS NO. 14808-60-7
RCRA: This product is not classified as a hazardous waste under the RCRA
CERCLA: Crystalline silica is not classified as a hazardous waste under the CERCLA Act
Clean Air Act: Crystalline silica is not processed with or does not contain any class I or class II ozone depleting substances
FDA: Silica is included in the list of substances that may be included in coatings used in food contact surfaces, 21 CFR 175.300(b)(3)(xxvi)
California Proposition 65: Crystalline silica (airborne particles of a respirable size) is classified as a substance known to the state of California to be a carcinogen
California Inhalation Reference Exposure Level (REL): California established a chronic non-cancer effect REL of 3ug/m³ for silica (crystalline, respirable) A chronic REL is an airborne level of a substance at or below which no non-cancer health effects are anticipated in individuals indefinitely exposed to the substance at that level
SECTION 16 OTHER INFORMATION

Hazardous Material Information System:
  Health *
  Flammability 0
  Physical Hazard 0
  Protective Equipment E
  • For further information on health effects see Section 2,8 and 11 of this SDS

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