Material Safety Data Sheet

SECTION I: MATERIAL IDENTIFICATION

Product Name: Missouri Flint Clay, Hawthorne Bond Clay, STKO, Bauxite, Plastic Fireclay, Diaspore Clay, Burley Clay, Rotary Kiln Fines

Product Description: Raw and Calcined Clay Minerals and Bauxite Minerals

Product Sizes: All grain sizes (klin run to -325 mesh)

Chemical Family: Al₂O₃-SiO₂ (Aluminum Silicate); Al₂O₃ (Aluminum Oxide)

SECTION II: HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>wt. %</th>
<th>CAS. #</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free Cristobalite</td>
<td>0-25</td>
<td>14464-46-1</td>
<td>0.05 mg/m³</td>
<td>5/(%SiO₂+2)</td>
</tr>
<tr>
<td>Free Quartz</td>
<td>0-25</td>
<td>14305-60-7</td>
<td>0.10 mg/m³</td>
<td>10/(%SiO₂+2)</td>
</tr>
<tr>
<td>Free Aluminum Oxide</td>
<td>0-70</td>
<td>1344-28-1</td>
<td>10 mg/m³</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td>Free Titanium Dioxide</td>
<td>0-2</td>
<td>13461-67-7</td>
<td>10 mg/m³</td>
<td>15 mg/m³ (total dust)</td>
</tr>
</tbody>
</table>

See Section VI for applicable Health Hazard Information.
See Product Data Sheet for specific product information.

SECTION III: PHYSICAL DATA

Physical State: Granular to powdery in appearance
Color: Buff, tan, white, or black.
Loose Fill Density: 50 - 120 lbs/cu.ft.
Water Solubility: Slightly soluble (raw) to insoluble in water (calcined)
Volatiles, %: N/A
Specific Gravity: 1.90 - 3.25 g/cc

Coefficient of Water/Oil Distribution: N/A
Vapor Pressure & Density: N/A
Odor and Odor Threshold: N/A
pH: N/A
Melting/Boiling/Freezing Point: N/A
Evaporation Rate: N/A

SECTION IV: FIRE AND EXPLOSION DATA

Flammability: Non-combustible.
Auto Ignition Temp: N/A
Combustion Products: N/A
Means of extinction: Use extinguishing media appropriate for surrounding media.

Upper & Lower Flammable Limit: N/A
Special Fire Fighting Procedures: N/A
Sensitivity to Mechanical Impact/Static Discharge: N/A
Flash Point: N/A

SECTION V: REACTIVITY DATA

Stability: Stable under normal conditions of use.
Hazards of Reactivity: Hazardous polymerization will not occur.

SECTION VI: HEALTH HAZARD & TOXICOLOGICAL INFORMATION

Exposure Limits: See Section II

Acute Effects:
Irritancy of Product: Eye contact and inhalation are major routes of entry.
Inhalation: Inhalation of dust can cause irritation.
Skin: Prolonged or repeated skin contact can cause irritation.
Eyes: Contact with eyes can cause irritation, especially when wet.
Ingestion: Not an expected route of entry.

Chronic Effects & Carcinogenicity:
All Products: Excessive inhalation of dust from these products can cause silicosis. Crystalline silica is listed as an IARC Class 1 potential carcinogen. It has been determined that there is sufficient evidence for the carcinogenicity of crystalline silica to experimental animals and humans. These are chronic, slow developing diseases with symptoms usually delayed 10 years or more.

Reproductive effects, Teratogenicity, Mutagenicity: N/A
Sensitization to Products: N/A
Name of Toxicologically Synergistic Products: N/A

Post-M# Fax Note 7671
Date 8/12/2012
From Robin
To Larry ATKINSON
Co./Dept. High At Art & Design
Phone #: Phone #
Fax #: Fax #
SECTION VII: SPILL, LEAK & DISPOSAL PROCEDURES

Spill & Leak: Clean-up personnel need a NIOSH respirator approved for lung damaging dusts. Sweep spills and vacuum where necessary. Avoid generating dust.

Disposal: Dispose of waste in an approved landfill in accordance with federal, state, and local laws.

SECTION VIII: FIRST AID & SPECIAL PROTECTION INFORMATION

First Aid

Inhalation: Move victim to fresh air. If breathing difficulty continues, give oxygen & obtain medical help.

Skin Contact: Wash with soap and warm water. If irritation develops, consult a physician.

Eye Contact: Flush with water for at least 15 minutes. Call physician if irritation persists.

Ingestion: If ingested, do not induce vomiting. Obtain medical attention.

Respiratory Protection: Provide adequate general ventilation. Provide workers with NIOSH respirators approved for lung damaging dusts when exposed to dust. Exposure levels over 100 times TLV (Section II) require air supplied respirators.

Skin & Eye Protection: Gloves and safety goggles should be worn when exposed to excessive dust.

Ventilation: Provide local exhaust ventilation to meet exposure limits (Section II).

SECTION IX: SPECIAL PRECAUTIONS

Handling: Dust in the work area should be kept to a minimum and proper ventilation provided. Avoid inhalation of dust.

Avoid eye contact with materials.

Storage: No special storage conditions are required.

Shipping: No special shipping information is required.

SECTION X: ABBREVIATIONS & REFERENCES

Abbreviations

N/AV: not available
N/Ap: not applicable
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
TLV/TWA: Threshold Limit Values/Time Weighted Average
NIOSH: National Institute of Occupational Safety and Health

References

1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 1989-90.
3. Canadian Centre for Occupational Health and Safety. Trade name Database.