SAFETY DATA SHEET

Section 1. Identification

Product Identifier: Buildex Haydite Expanded Shale Lightweight Aggregate
Chemical Name: Expanded Shale Lightweight Aggregate
Recommended use: Construction Material

Manufacturer Name: Buildex, Inc.
P.O. Box 77
Ottawa, Kansas
Telephone number: (785) 242-2177

Date of Preparation: June 2, 2015

Section 2. Hazard(s) Identification

Classification:

<table>
<thead>
<tr>
<th>Physical</th>
<th>Health</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Hazardous</td>
<td>Carcinogenicity Category 1A</td>
<td>Not Hazardous</td>
</tr>
</tbody>
</table>

Labeling:

Danger!

Hazard statement(s)  Precautionary statement(s)

May cause cancer by inhalation.  Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust.
Wash thoroughly after handling.
If exposed or concerned: Get medical attention.
Dispose of contents and container in accordance with local and national regulations.

Section 3. Composition / Information On Ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystalline Silica</td>
<td>14808-60-7</td>
<td>50-70%</td>
</tr>
</tbody>
</table>
Section 4. First-Aid Measures

Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial ventilation. Get medical attention if irritation persists.

Skin contact: Remove contaminated clothing and launder before reuse. Wash skin with soap and water. Get medical attention if irritation develops or persists.

Eye contact: Immediately flush eyes with large quantities of water for several minutes, holding the eyelids apart. Get medical attention if irritation persists.

Ingestion: If swallowed, rinse mouth with water.

Most important symptoms/effects, acute and delayed: Inhalation of dust may cause respiratory irritation, coughing and difficulty in breathing. Prolonged overexposure to respirable crystalline silica may cause lung disease (silicosis) and increase the risk of lung cancer. Risk of cancer depends on duration and level of exposure. A single exposure will not result in serious adverse effects.

Indication of immediate medical attention and special treatment, if necessary: None required under normal conditions of use.

Section 5. Fire-Fighting Measures

Suitable (and unsuitable) extinguishing media: Use media appropriate to the surrounding fire.

Specific hazards arising from the chemical: Not flammable or combustible. Dry powders may accumulate static charge in handling which can be a source of ignition for flammable atmospheres.

Special protective equipment and precautions for fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing.

Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Wear appropriate protective clothing as described in Section 8.

Environmental precautions: Report releases as required by local and federal authorities.

Methods and materials for containment and cleaning up: Collect using dustless method and place in appropriate container for use or disposal.

Section 7. Handling And Storage

Precautions for safe handling: Do not breathe dust. Wear protective clothing and equipment as described in Section 8. Use with adequate ventilation and proper dust collection methods to keep exposure level below occupational exposure limits. Wash thoroughly with soap and water after use.

Dust can accumulate electrostatic charges due to friction from transfer and mixing operations and cause an electrical spark (ignition source) which can ignite flammable liquids and atmospheres. Provide adequate precautions when adding this product to flammable and combustible mixtures like paints and coating, such as electrical grounding and bonding, inert atmosphere or non-sparking tools. However, bonding and grounds may not eliminate the hazard for static accumulation.

Empty containers retain product residues. Follow all SDS precautions in handling empty containers.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well ventilated area. Protect from physical damage.
Section 8. Exposure Controls / Personal Protection

Exposure guidelines:

<table>
<thead>
<tr>
<th>Silica Source</th>
<th>TWA Exposure Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystalline Silica</td>
<td>10 mg/m³ TWA OSHA PEL (respirable fraction)</td>
</tr>
<tr>
<td></td>
<td>% Silica + 2</td>
</tr>
<tr>
<td></td>
<td>30 mg/m³ TWA OSHA PEL (total dust)</td>
</tr>
<tr>
<td></td>
<td>% Silica + 2</td>
</tr>
<tr>
<td></td>
<td>0.025 mg/m³ TWA ACGIH TLV (respirable fraction)</td>
</tr>
</tbody>
</table>

**Appropriate engineering controls:** Use with adequate general or local exhaust ventilation to maintain exposures below the occupational exposure limits.

**Individual protection measures, such as personal protective equipment:**

**Respiratory protection:** If the exposure limits are exceeded a NIOSH approved particulate respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 or other applicable regulations and good industrial hygiene practice.

**Skin protection:** Wear protective gloves.

**Eye protection:** Safety glasses or goggles recommended to prevent eye contact.

**Other:** None required.

Section 9. Physical And Chemical Properties

**Appearance (physical state, color, etc.):** Angular or round multicolored particles

**Odor:** No odor

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not flammable or combustible</td>
</tr>
<tr>
<td>Flammable limits: LEL</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.15-1.6</td>
</tr>
<tr>
<td>Partition coefficient: n-Octanol/water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Section 10. Stability And Reactivity

**Reactivity:** Not reactive under normal conditions of use.

**Chemical stability:** Stable

**Possibility of hazardous reactions:** Crystalline silica will dissolve in hydrofluoric acid and produce silicone tetrafluoride.

**Conditions to avoid:** None known.

**Incompatible materials:** Avoid contact with oxidizing agents.

**Hazardous decomposition products:** None known.

Section 11. Toxicological Information

**Inhalation:** Inhalation of dust may cause irritation to the nose, throat and upper respiratory tract with coughing and shortness of breath.

**Ingestion:** Not expected to cause adverse effects.

**Skin contact:** Prolonged skin contact may cause mechanical irritation and abrasions.
Eye contact: Dust causes irritation or redness with inflammation of the cornea. May cause mechanical irritation.

Chronic effects from short- and long-term exposure: Chronic inhalation of respirable crystalline silica dust may cause a progressive, disabling and sometimes fatal lung disease called silicosis. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness and reduced pulmonary function.

Reproductive Toxicity: None of the components have been shown to cause reproductive or developmental toxicity.

Sensitization: None of the components have been shown to cause sensitization in animals or humans.

Mutagenicity: None of the components have been shown to cause mutagenic activity.

Carcinogenicity: Crystalline silica quartz is listed as "Carcinogenic to Humans" (Group 1) by IARC, as a "Known to be a Human Carcinogen" by NTP and “Suspected Human Carcinogen, A2 by ACGIH.

Acute Toxicity Values:
Crystalline Silica, Quartz: Oral rat LD50 >22,500 mg/kg

Section 12. Ecological Information

Ecotoxicity:
Crystalline Silica, Quartz: No data available

Persistence and degradability: Biodegradation is not applicable to inorganic substances.
Bioaccumulative potential: Not expected to be bioaccumulative.
Mobility in soil: No data available.
Other adverse effects: None known.

Section 13. Disposal Considerations

Dispose in accordance with all local, state and federal regulations.

Section 14. Transport Information

<table>
<thead>
<tr>
<th>UN Number</th>
<th>Proper shipping name</th>
<th>Hazard Class</th>
<th>Packing Group</th>
<th>Environmental Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>TDG</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>IMDG</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>IATA</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form.

Special precautions: None known

Section 15. Regulatory Information

CERCLA: This product is not subject to CERCLA reporting requirements as it is sold. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Acute Health, Chronic Health
SARA 313 Information: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

California Proposition 65
This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity (birth defects):

Crystalline silica, quartz 14808-60-7 50-70% cancer

EPA TSCA Inventory: All of the ingredients in this product are listed on the EPA TSCA Inventory.

Section 16. Other Information

NFPA Rating: Health = 1 Flammability = 0 Instability = 0
HMIS Rating: Health = 1* Flammability = 0 Physical Hazard = 0
*Chronic Health Hazard

SDS Revision History: All sections revised – Converted to GHS format
Date of preparation: June 2, 2015
Date of last revision: December 15, 2001

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