SECTION 1: IDENTIFICATION

1.1. Product Identifier
Product Form: Article
Product Name: Brick

1.2. Intended Use of the Product
Use of the substance/mixture: Building material used for structural support.

1.3. Name, Address, and Telephone of the Responsible Party
Acme Brick Company
3024 Acme Brick Plaza
Fort Worth, TX 76109
Corporate Office: (817) 332-4101

1.4. Emergency Telephone Number
Emergency Number: (817) 870-8348
Safety & Industrial Hygienist: (817) 870-8374

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture
Classification (GHS-US)
Not classified

OSHA Regulatory status: This product is considered an 'article' under 29 CFR Part 1910.1200. Under normal conditions of use, users of the product cannot be exposed to its contents. If the article is damaged and/or material is released, contents are not harmful. For informational purposes, this product would have the following OSHA classification;
Acute Health Hazard
Chronic Health Hazard

2.3. Other Hazards
Excessive dust exposure may aggravate any existing respiratory disorders or diseases. Possible complications or allergies resulting in irritation to skin, eyes, and respiratory tract may occur from excessive exposure to dusts. Brick dust may contain crystalline silica, a chemical that has been determined by certain agencies to cause cancer. See Section 11 for more information on health hazards.

2.4. Unknown Acute Toxicity (GHS-US)
No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance
Not applicable

3.2. Mixture*

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Silicates</td>
<td>(CAS No) Proprietary</td>
<td>50 - 85</td>
<td>Not classified</td>
</tr>
<tr>
<td>Quartz</td>
<td>(CAS No) 14808-60-7</td>
<td>15 - 40</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium compounds</td>
<td>(CAS No) Proprietary</td>
<td>0 - 3</td>
<td>Not classified</td>
</tr>
<tr>
<td>Manganese compounds</td>
<td>(CAS No) Proprietary</td>
<td>0 - 3</td>
<td>Not classified</td>
</tr>
<tr>
<td>Calcium compounds</td>
<td>(CAS No) Proprietary</td>
<td>0 - 3</td>
<td>Not classified</td>
</tr>
<tr>
<td>Iron Compounds as granular body additives</td>
<td>(CAS No) Proprietary</td>
<td>0 - 3</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

*Elements such as aluminum, arsenic, boron, calcium, chromium, cobalt, copper, lead, molybdenum, nickel, tin, titanium, vanadium, and zirconium may be present in trace amounts. Brick products as shipped do not present an exposure hazard. Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures
First-aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid Measures After Inhalation: When symptoms occur: go into open air and ventilate suspected area. If exposed or concerned: Get medical advice/attention. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

First-aid Measures After Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation persists.

First-aid Measures After Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Get medical advice and attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/Injuries: Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause respiratory irritation. There are potential chronic health effects to consider.

Symptoms/Injuries After Inhalation: May cause respiratory irritation. May cause cancer by inhalation. Repeated exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis.

Symptoms/Injuries After Skin Contact: Causes skin irritation. Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: Causes serious eye irritation. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed
If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media
Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Use of heavy stream of water may spread fire. Do not use a heavy water stream.

5.2. Special Hazards Arising From the Substance or Mixture
Fire Hazard: Non-combustible. Brick as shipped do not pose a fire hazard.

Explosion Hazard: Brick as shipped do not pose an explosion hazard.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters
Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Do not allow run-off from fire fighting to enter drains or water sources. Do not breathe fumes or vapors from fire.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Other Information: Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures
General Measures: Handle in accordance with good industrial hygiene and safety practice. Avoid generation of dust during clean-up of spills.

6.1.1. For Non-emergency Personnel
Protective Equipment: Use appropriate personal protection equipment (PPE).


6.1.2. For Emergency Responders
Protective Equipment: Equip cleanup crew with proper protection. Use appropriate personal protection equipment (PPE).

Emergency Procedures: Ventilate area. Avoid creating or spreading dust.

6.2. Environmental Precautions
Prevent entry to sewers and public waters.

6.3. Methods and Material for Containment and Cleaning Up
For Containment: Contain and collect as any solid. Place spilled material into a container. Avoid actions that cause dust to become airborne. Avoid inhalation of dust. Wear appropriate protective equipment as described in Section 8. Do not wash product down sewage and drainage systems or into bodies of water (e.g. streams).

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely.

6.4. Reference to Other Sections
See heading 8, Exposure Controls and Personal Protection. Concerning disposal elimination after cleaning, see item 13.
SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Avoid dust production that exceeds permissible exposure limits.

Precautions for Safe Handling: Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Do not breathe dust.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Store locked up.


7.3. Specific End Use(s)

Building material used for structural support.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), or OSHA (PEL).

<table>
<thead>
<tr>
<th>Substance</th>
<th>ACGIH TWA (mg/m³)</th>
<th>ACGIH chemical category</th>
<th>NIOSH REL (TWA) (mg/m³)</th>
<th>IDLH (mg/m³)</th>
<th>OSHA PEL (STEL) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz</td>
<td>0.025 mg/m³ (respirable fraction)</td>
<td>A2 - Suspected Human Carcinogen</td>
<td>0.05 mg/m³ (respirable dust)</td>
<td>50 mg/m³ (respirable dust)</td>
<td>250 mppcf/%SiO₂+5, 10mg/m³/%SiO₂+2</td>
</tr>
<tr>
<td>Chromium</td>
<td>0.5 mg/m³</td>
<td>Not Classifiable as a Human Carcinogen</td>
<td>0.5 mg/m³</td>
<td>250 mg/m³</td>
<td>1 mg/m³</td>
</tr>
<tr>
<td>Manganese</td>
<td>0.02 mg/m³ (respirable fraction)</td>
<td>Not Classifiable as a Human Carcinogen</td>
<td>1 mg/m³ (fume)</td>
<td>3 mg/m³</td>
<td>5 mg/m³ (fume)</td>
</tr>
</tbody>
</table>

8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices.


Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

Environmental Exposure Controls: Avoid release to the environment.
Brick
Safety Data Sheet
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

9.1. Information on Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Granular brick-shaped solid; comes in wide range of colors</td>
</tr>
<tr>
<td>Odor</td>
<td>Essentially odorless</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative Vapor Density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Water: Negligible</td>
</tr>
<tr>
<td>Partition Coefficient: N-Octanol/Water</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other Information
No additional information available

**SECTION 10: STABILITY AND REACTIVITY**

10.1. Reactivity: Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability: Stable under normal ambient conditions.

10.3. Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

10.4. Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Incompatible materials.


10.6. Hazardous Decomposition Products: May include oxides of aluminum and silicon.

**SECTION 11: TOXICOLOGICAL INFORMATION**

11.1. Information On Toxicological Effects

**Acute Toxicity:** Not classified

<table>
<thead>
<tr>
<th>Compound</th>
<th>LD50 Oral Rat</th>
<th>LD50 Dermal Rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz (14808-60-7)</td>
<td>&gt; 5000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Chromium (7440-47-3)</td>
<td>&gt; 5000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Manganese (7439-96-5)</td>
<td>&gt; 5000 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

**Skin Corrosion/Irritation:** Causes skin irritation.

**Serious Eye Damage/Irritation:** Causes serious eye irritation.

**Respiratory or Skin Sensitization:** May cause an allergic skin reaction.

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** May cause cancer.

**Quartz (14808-60-7)**

| IARC group | 1 |
| National Toxicology Program (NTP) Status | Known Human Carcinogens. |
| OSHA Hazard Communication Carcinogen List | In OSHA Hazard Communication Carcinogen list. |

**Chromium (7440-47-3)**

| IARC group | 3 |

**Reproductive Toxicity:** Not classified
Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.
Specific Target Organ Toxicity (Repeated Exposure): Causes damage to organs through prolonged or repeated exposure.

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May cause respiratory irritation. May cause cancer by inhalation. Repeated exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis.
Symptoms/Injuries After Skin Contact: Causes skin irritation. Redness, pain, swelling, itching, burning, dryness, and dermatitis.
Symptoms/Injuries After Eye Contact: Causes serious eye irritation. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision.
Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Causes damage to organs through prolonged or repeated exposure. May cause cancer.

SECTION 12: ECOLOGICAL INFORMATION
12.1. Toxicity
Manganese (7439-96-5)

NOEC chronic fish 3.6 mg/l (Exposure time: 96h; Species: Oncorhynchus mykiss)

12.2. Persistence and Degradability
Brick
Persistence and Degradability Not established.

12.3. Bioaccumulative Potential
Brick
Bioaccumulative Potential Not established.

12.4. Mobility in Soil No additional information available

12.5. Other Adverse Effects
Other Information Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS
13.1. Waste treatment methods
Sewage Disposal Recommendations: Do not empty into drains. Do not dispose of waste into sewer.
Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION
14.1. In Accordance with DOT Not regulated for transport
14.2. In Accordance with IMDG Not regulated for transport
14.3. In Accordance with IATA Not regulated for transport

SECTION 15: REGULATORY INFORMATION
15.1 US Federal Regulations
Brick
SARA Section 311/312 Hazard Classes Immediate (acute) health hazard
Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting This product may contain constituents listed under SARA (Title III) Section 313, but not in amounts requiring supplier notification under 40 CFR Part 372 Subpart C.

Quartz (14808-60-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
SARA Section 311/312 Hazard Classes Immediate (acute) health hazard
Delayed (chronic) health hazard

Aluminum silicate (1327-36-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Chromium (7440-47-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on United States SARA Section 313
SARA Section 313 - Emission Reporting 1.0 %

Manganese (7439-96-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on United States SARA Section 313

06/03/2015 EN [English US] 5/6
### 15.2 US State Regulations

<table>
<thead>
<tr>
<th>Substance</th>
<th>States/States Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron (7439-89-6)</td>
<td>U.S. - California - Proposition 65 - Carcinogens List</td>
</tr>
<tr>
<td>Calcium (7440-70-2)</td>
<td>U.S. - Massachusetts - Right To Know List</td>
</tr>
<tr>
<td>Calcium (7440-70-2)</td>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td>Calcium (7440-70-2)</td>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
<tr>
<td>Chromium (7440-47-3)</td>
<td>U.S. - Massachusetts - Right To Know List</td>
</tr>
<tr>
<td>Chromium (7440-47-3)</td>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td>Chromium (7440-47-3)</td>
<td>U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List</td>
</tr>
<tr>
<td>Chromium (7440-47-3)</td>
<td>U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances</td>
</tr>
<tr>
<td>Manganese (7439-96-5)</td>
<td>U.S. - Massachusetts - Right To Know List</td>
</tr>
<tr>
<td>Manganese (7439-96-5)</td>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td>Manganese (7439-96-5)</td>
<td>U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List</td>
</tr>
<tr>
<td>Manganese (7439-96-5)</td>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
<tr>
<td>Calcium (7440-70-2)</td>
<td>U.S. - Massachusetts - Right To Know List</td>
</tr>
<tr>
<td>Calcium (7440-70-2)</td>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td>Calcium (7440-70-2)</td>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
</tbody>
</table>

**SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION**

**Revision Date**: 06/03/2015

**Other Information**: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

**GHS Full Text Phrases**:

<table>
<thead>
<tr>
<th>Code</th>
<th>Phrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carc. 1A</td>
<td>Carcinogenicity Category 1A</td>
</tr>
<tr>
<td>STOT RE 1</td>
<td>Specific target organ toxicity (repeated exposure) Category 1</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity (single exposure) Category 3</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H350</td>
<td>May cause cancer</td>
</tr>
<tr>
<td>H372</td>
<td>Causes damage to organs through prolonged or repeated exposure</td>
</tr>
</tbody>
</table>

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

SDS US (GHS HazCom)