SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product name : HC Muddox Brick
Product code : Not available

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture : Building and Construction

1.3. Details of the supplier of the safety data sheet
HC Muddox
4875 Bradshaw Road
Sacramento, CA 95827
T 916-859-6320

1.4. Emergency telephone number
Emergency number : CHEMTREC 1 (800) 424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
The classification given below pertains to the product during processing:

GHS-US classification
Eye Irritation 2A
Skin Sensitization 1
Carcinogenicity 1A
Specific target Organ Toxicity - Repeated Exposure 1

2.2. Label elements
GHS-US labelling
Hazard pictograms (GHS-US) : ! !

Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : Causes serious eye irritation. May cause an allergic skin reaction. May cause cancer. Causes damage to organs through prolonged or repeated exposure.
Precautionary statements (GHS-US) : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. If exposed or concerned: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If on skin: Wash with plenty of water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards
No additional information available.

2.4. Unknown acute toxicity (GHS US)
6 percent of the mixture consists of ingredient(s) of unknown acute toxicity.
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>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaolin</td>
<td>(CAS No) 1332-58-7</td>
<td>60 - 100</td>
<td>Not classified</td>
</tr>
<tr>
<td>Cement, portland, chemicals</td>
<td>(CAS No) 65997-15-1</td>
<td>≤ 5</td>
<td>Skin Irr. 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Sens. 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3</td>
</tr>
<tr>
<td>Manganese dioxide</td>
<td>(CAS No) 1313-13-9</td>
<td>≤ 5</td>
<td>Acute Tox. 4 (Oral)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4 (Inhalation)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT RE 2</td>
</tr>
<tr>
<td>Barium carbonate</td>
<td>(CAS No) 513-77-9</td>
<td>≤ 1</td>
<td>Acute Tox. 4 (Oral)</td>
</tr>
<tr>
<td>Gypsum</td>
<td>(CAS No) 13397-24-5</td>
<td>≤ 1</td>
<td>Not classified</td>
</tr>
<tr>
<td>Quartz</td>
<td>(CAS No) 14808-60-7</td>
<td>≤ 1</td>
<td>Carc. 1A1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT RE 11</td>
</tr>
<tr>
<td>Residues, petroleum, vacuum</td>
<td>(CAS No) 64741-56-6</td>
<td>≤ 1</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

* The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

First-aid measures after eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.

First-aid measures after ingestion: Not a normal route of exposure. If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation: Dust may cause respiratory tract irritation.

Symptoms/injuries after skin contact: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause sensitization by skin contact.

Symptoms/injuries after eye contact: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Symptoms/injuries after ingestion: Not a normal route of exposure. May result in obstruction and temporary irritation of the digestive tract.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Products of combustion may include, and are not limited to: oxides of carbon.

5.3. Advice for firefighters

Protection during firefighting: Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).
SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures
General measures: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.2. Methods and material for containment and cleaning up
For containment: Pick up large pieces, then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
Methods for cleaning up: Vacuum or sweep material and place in a disposal container. Use wet methods, if appropriate, to reduce the generation of dust. Provide ventilation.

6.3. Reference to other sections
See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage
7.1. Precautions for safe handling
Precautions for safe handling: Avoid contact with skin and eyes. Good housekeeping is important to prevent accumulation of dust. Avoid generating and breathing dust. Use wet methods, if appropriate, to reduce the generation of dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended. Handle with care. When using do not eat, drink or smoke.
Hygiene measures: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Avoid any dust buildup by frequent cleaning and suitable construction of the storage area.

7.3. Specific end use(s)
Not available.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>(ACGIH) ACGIH TWA (mg/m³)</th>
<th>(OSHA) OSHA PEL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaolin (1332-58-7)</td>
<td>2 mg/m³ (particulate matter containing no asbestos and &lt;1% crystalline silica, respirable fraction)</td>
<td></td>
</tr>
<tr>
<td>Cement, portland, chemicals (65997-15-1)</td>
<td>1 mg/m³ (particulate matter containing no asbestos and &lt;1% crystalline silica, respirable fraction)</td>
<td></td>
</tr>
<tr>
<td>Manganese dioxide (1313-13-9)</td>
<td>0.02 mg/m³ (respirable fraction)</td>
<td>0.1 mg/m³ (inhalable fraction)</td>
</tr>
<tr>
<td>Barium carbonate (513-77-9)</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Gypsum (13397-24-5)</td>
<td>10 mg/m³ (inhalable fraction)</td>
<td></td>
</tr>
<tr>
<td>Quartz (14808-60-7)</td>
<td>0.025 mg/m³ (respirable fraction)</td>
<td></td>
</tr>
</tbody>
</table>
Quartz (14808-60-7)

<table>
<thead>
<tr>
<th></th>
<th>OSHA</th>
<th>OSHA PEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(30)/(%SiO₂ + 2) mg/m³ (total dust)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(250)/(%SiO₂ + 5) mppcf (respirable fraction)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(10)/(%SiO₂ + 2) mg/m³ (respirable fraction)</td>
</tr>
</tbody>
</table>

Residues, petroleum, vacuum (64741-56-6)

<table>
<thead>
<tr>
<th></th>
<th>ACGIH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits. Use wet methods, if appropriate, to reduce the generation of dust.

Hand protection: Wear suitable gloves.

Eye protection: Wear eye protection.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls: Maintain levels below Community environmental protection thresholds.

Other information: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Solid

Appearance: Fully cured and hydrated concrete

Color: Various

Odor: Odorless

Odor threshold: No data available

pH: No data available

Melting point: No data available

Freezing point: No data available

Boiling point: No data available

Flash point: No data available

Relative evaporation rate (butylacetate=1): No data available

Flammability (solid, gas): Not flammable

Explosive limits: No data available

Explosive properties: No data available

Oxidising properties: No data available

Vapor pressure: No data available

Relative density: No data available

Relative vapor density at 20 °C: No data available

Solubility: No data available

Partition coefficient: n-octanol/water: No data available

Log Kow: No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Viscosity, kinematic: No data available

Viscosity, dynamic: No data available

9.2. Other information

No additional information available.
SECTION 10: Stability and reactivity

10.1. Reactivity
No dangerous reaction known under conditions of normal use.

10.2. Chemical stability
Stable under normal storage conditions.

10.3. Possibility of hazardous reactions
No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid
None known.

10.5. Incompatible materials
None known.

10.6. Hazardous decomposition products
None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Not classified.

<table>
<thead>
<tr>
<th>Material</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>HC Muddox Brick</td>
<td>LD50 oral rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal rabbit</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation rat</td>
<td>&gt; 5 mg/l/4h</td>
</tr>
<tr>
<td>Barium carbonate (513-77-9)</td>
<td>LD50 oral rat</td>
<td>418 mg/kg</td>
</tr>
<tr>
<td>Residues, petroleum, vacuum (64741-56-6)</td>
<td>LD50 oral rat</td>
<td>4320 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal rabbit</td>
<td>&gt; 2000 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation : Based on available data, the classification criteria are not met.
Serious eye damage/irritation : Causes serious eye irritation. The hydration process has already occurred in this product and corrosive effects that would normally result from wet Portland Cement should no longer occur.
Respiratory or skin sensitization : May cause an allergic skin reaction.
Germ cell mutagenicity : Based on available data, the classification criteria are not met.
Carcinogenicity : Based on available data, the classification criteria are not met.

Quartz (14808-60-7)

<table>
<thead>
<tr>
<th>IARC group</th>
<th>National Toxicology Program (NTP) Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Carcinogenic to humans (airborne particles of respirable size)</td>
<td>2 - Known Human Carcinogens (airborne particles of respirable size)</td>
</tr>
</tbody>
</table>

Reproductive toxicity : Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure) : Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure) : Causes damage to organs through prolonged or repeated exposure. Respirable crystalline silica in the form of quartz or cristobalite from occupational sources is listed by the International Agency for Research on Cancer (IARC) and National Toxicology Program (NTP) as a lung carcinogen. Prolonged exposure to respirable crystalline silica has been known to cause silicosis, a lung disease, which may be disabling. While there may be a factor of individual susceptibility to a given exposure to respirable silica dust, the risk of contracting silicosis and the severity of the disease is clearly related to the amount of dust exposure and the length of time (usually years) of exposure.
Aspiration hazard : Based on available data, the classification criteria are not met.

Symptoms/injuries after inhalation : Dust may cause respiratory tract irritation.
Symptoms/injuries after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause sensitization by skin contact.
Symptoms/injuries after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/injuries after ingestion : Not a normal route of exposure. May result in obstruction and temporary irritation of the digestive tract.
SECTION 12: Ecological information

12.1. Toxicity
Ecology - general : No ecological consideration when used according to directions.

12.2. Persistence and degradability
HC Muddox Brick
Persistence and degradability Not established.

12.3. Bioaccumulative potential
HC Muddox Brick
Bioaccumulative potential Not established.

12.4. Mobility in soil
No additional information available.

12.5. Other adverse effects
Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT
Not regulated for transport.

Additional information
Other information : No supplementary information available.
Special transport precautions : Do not handle until all safety precautions have been read and understood.

SECTION 15: Regulatory information

15.1. US Federal regulations
All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gypsum</td>
<td>13397-24-5</td>
</tr>
</tbody>
</table>

15.2. US State regulations
HC Muddox Brick
State or local regulations This product contains chemicals known to the State of California to cause cancer.

SECTION 16: Other information

Date of issue : 04/22/2015
Other information : None.