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

### 1.1. Product identifier
Product form: Mixture
Product name: AB3 Limestone

### 1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture: Construction - roads and concrete mixes.

### 1.3. Details of the supplier of the safety data sheet
Ash Grove Cement Company
11011 Cody
Overland Park, KS 66210
T 913-451-8900

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

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture
GHS-US classification
Carcinogenicity 1A
Specific Target Organ Toxicity After Repeated Exposure 1

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

- GHS08

**Signal word (GHS-US):** Danger

**Hazard statements (GHS-US):** May cause cancer. Causes damage to lungs through prolonged or repeated exposure. Do not handle until all safety precautions have been read and understood. Wear protective gloves and clothing as well as eye and face protection. Do not breathe dusts. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

**Prevention statements (GHS-US):**
- Do not handle until all safety precautions have been read and understood. Wear protective gloves and clothing as well as eye and face protection. Do not breathe dusts.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.

**Response statements (GHS-US):**
- If exposed or concerned: Get medical advice/attention.

**Storage statements (GHS-US):**
- Store to prevent dust generation.

**Disposal statements (GHS-US):**
- Dispose of contents and container in accordance with all local, state, and federal regulations.

**Supplemental Information:**
- Read and Follow all precautions listed in the Safety Data Sheet available on request or at ashgrove.com. Additional information on the selection and use of respirators can be found in the NIOSH Respirator Selection Logic (DHHS [NIOSH] Publication No. 2005-100) and the NIOSH Guide to Industrial Respiratory Protection (DHHS [NIOSH] Publication No. 87-116) available at http://www.cdc.gov/niosh/docs/87-116/.
- This product contains greater than 0.1% crystalline silica. Crystalline silica has been linked to cancer, silicosis, and other lung problems in conditions of prolonged airborne over-exposure.

### 2.3. Other hazards

**Other hazards not contributing to the classification:**
- Not applicable.

#### 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>Calcium carbonate</td>
<td>(CAS No) 471-34-1</td>
<td>95 - 100</td>
<td>Not classified</td>
</tr>
<tr>
<td>Quartz</td>
<td>(CAS No) 14808-60-7</td>
<td>1 - 5</td>
<td>Acute tox. 4 (Oral), H302 Carc. 1A, H350 STOT RE 1, H372</td>
</tr>
</tbody>
</table>

## 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: If irritation occurs, 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. Remove contact lenses, if worn. If irritation persists, get medical attention.

First-aid measures after ingestion: 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 attention if distress develops.

Symptoms/injuries after inhalation: May cause respiratory tract irritation.

Symptoms/injuries after skin contact: May cause skin irritation. Symptoms may include skin abrasion and redness.

Symptoms/injuries after eye contact: May cause 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: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

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

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

No additional information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Treat for surrounding material.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Product does not burn; however its packaging may. 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. Clean up quickly and avoid generating dust. Wear suitable respiratory protection if dusty conditions arise. Avoid contact with eyes.

6.2. Methods and material for containment and cleaning up

For containment: Contain spill, then place in a suitable container. Minimize dust generation. 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. 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 eyes. Do not swallow. Avoid generating and breathing dust. Good housekeeping is important to prevent accumulation of dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended.

Hygiene measures: Launder 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. Clean up spilled material promptly.

7.3. Specific end use(s)

No additional information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USA ACGIH</strong></td>
<td><strong>ACGIH TWA (mg/m³)</strong></td>
<td><strong>0.025 mg/m³ (respirable fraction)</strong></td>
</tr>
<tr>
<td><strong>USA OSHA</strong></td>
<td><strong>OSHA PEL (TWA) (mg/m³)</strong></td>
<td><strong>(30)/(%SiO₂ + 2) mg/m³ TWA, (total dust)</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>(250)/(%SiO₂ + 5) mppcf TWA, (respirable fraction)</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>(10)/(%SiO₂ + 2) mg/m³ TWA, (respirable fraction)</strong></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.

Hand protection: Wear standard work gloves (leather, cotton, coated cotton, etc.) as needed to prevent abrasion.
AB3 Limestone
Safety Data Sheet

Eye protection : Safety glasses or goggles are recommended when using product.
Skin and body protection : Wear suitable clothing common to do-it-yourself projects.
Respiratory protection : A NIOSH approved respirator is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. 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 protection : 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Crushed rock</td>
</tr>
<tr>
<td>Colour</td>
<td>Whitish-gray to tan</td>
</tr>
<tr>
<td>Odour</td>
<td>No odour</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not applicable</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</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>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Self 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>Not flammable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>2.71 (Water=1)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Negligible</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

VOC content : No data 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 conditions.

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

10.4. Conditions to avoid
Moisture – product must be kept dry until ready to use.

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.
**AB3 Limestone**

**Safety Data Sheet**


<table>
<thead>
<tr>
<th>Substance</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quartz (14808-60-7)</strong></td>
<td>LD50 oral rat</td>
<td>500 mg/kg</td>
</tr>
<tr>
<td><strong>Carbonic acid, calcium salt (1:1) (471-34-1)</strong></td>
<td>LD50 oral rat</td>
<td>6450 mg/kg</td>
</tr>
<tr>
<td><strong>AB3 Limestone</strong></td>
<td>ATE (oral)</td>
<td>&gt;2000 mg/kg, rat</td>
</tr>
<tr>
<td></td>
<td>ATE (dermal)</td>
<td>No data available.</td>
</tr>
<tr>
<td></td>
<td>ATE (inhalation)</td>
<td>No data available.</td>
</tr>
</tbody>
</table>

- Skin corrosion/irritation: Based on available data, the classification criteria are not met.
- Serious eye damage/irritation: Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.
- Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- Carcinogenicity: May cause cancer.

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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC group</td>
<td>1 - Carcinogenic to humans</td>
</tr>
<tr>
<td>National Toxicology Program (NTP) Status</td>
<td>2 - Known Human Carcinogens</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>Causes damage to lungs 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.)</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Symptoms/injuries after inhalation</td>
<td>May cause respiratory tract irritation.</td>
</tr>
<tr>
<td>Symptoms/injuries after skin contact</td>
<td>May cause skin irritation. Symptoms may include skin abrasion and redness.</td>
</tr>
<tr>
<td>Symptoms/injuries after eye contact</td>
<td>May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.</td>
</tr>
<tr>
<td>Symptoms/injuries after ingestion</td>
<td>May be harmful if swallowed. May cause stomach distress, nausea or vomiting.</td>
</tr>
</tbody>
</table>

**SECTION 12: Ecological information**

12.1. **Toxicity**

Ecology - general: Not considered to be harmful to aquatic life.

12.2. **Persistence and degradability**

**AB3 Limestone**

Persistence and degradability: No data available.

12.3. **Bioaccumulative potential**

**AB3 Limestone**

Bioaccumulative potential: No data available.

**Carbonic acid, calcium salt (1:1) (471-34-1)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF fish 1</td>
<td>(no bioaccumulation)</td>
</tr>
</tbody>
</table>

12.4. **Mobility in soil**

**AB3 Limestone**

Ecology - soil: No data available.

12.5. **Other adverse effects**

Other adverse effects: No data available.

**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.
AB3 Limestone
Safety Data Sheet

SECTION 14: Transport information
In accordance with DOT:
14.1. UN number
Not applicable.
14.2. UN proper shipping name
Not applicable.
14.3. Additional information
Other information: No supplementary information available.

SECTION 15: US Federal regulations
Quartz (14808-60-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Carbonic acid, calcium salt (1:1) (471-34-1)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

SECTION 15.3: US State regulations

AB3 Limestone
State or local regulations
This product contains Crystalline Silica, Quartz and may also contain trace amounts of other chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

IARC (I)
International Agency for Research on Cancer.

1 - Carcinogenic to humans;
2A - Probably carcinogenic to humans;
2B - Possibly carcinogenic to humans;
3 - Not classifiable;
4 - Probably not carcinogenic to humans.

NTP (N)
National Toxicology Program.

1 - Evidence of Carcinogenicity;
2 - Known Human Carcinogens;
3 - Reasonably anticipated to be Human Carcinogen;
4 - Substances delisted from report on Carcinogens;
5 - Twelfth Report - Items under consideration.

SECTION 16: Other information


NFPA health hazard: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard: 0 - Materials that will not burn.

NFPA reactivity: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

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.