Unicrete 60 Flowz
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 12/06/2021 Revision date: 12/06/2021 Supersedes: 11/28/2018

SECTION 1: Identification

1.1. Identification
Product form : Mixture
Product name : Unicrete 60 Flowz
CAS-No. : Mixture
Product code : 3134
Other means of identification : Alumina-Silicate Cement Bonded Castable

1.2. Recommended use and restrictions on use
Use of the substance/mixture : Refractory
Recommended use : Industrial use

1.3. Supplier
Resco Products, Inc.
One Robinson Plaza, Suite 300
6600 Steubenville Pike
Pittsburgh, PA 15205 - United States
412-494-4491
SDS@RescoProducts.com - WWW.RescoProducts.com

1.4. Emergency telephone number
Emergency number : EMERGENCY ONLY (CHEMTREC) USA & Canada 1-800-424-9300
Outside USA & Canada +1 703-741-5970

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture
GHS US classification
Skin corrosion/irritation Category 2 : H315 - Causes skin irritation
Serious eye damage/eye irritation Category 2B : H320 - Causes eye irritation
Carcinogenicity Category 1A : H350 - May cause cancer (Inhalation)

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements
GHS US labeling
Hazard pictograms (GHS US) :
Signal word (GHS US) : Danger
Hazard statements (GHS US) :
H315 - Causes skin irritation
H320 - Causes eye irritation
H350 - May cause cancer (Inhalation)

Precautionary statements (GHS US) :
P280 - Wear eye protection, Dust respirator, protective gloves.
P305-P351-P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332-P313 - If skin irritation occurs: Get medical advice/attention.
P337-P313 - If eye irritation persists: Get medical advice/attention.
P260 - Do not breathe dust.

2.3. Other hazards which do not result in classification
No additional information available

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminum oxide, non-fibrous</td>
<td>(CAS-No.) 1344-28-1</td>
<td>10 – 20</td>
<td>Not classified</td>
</tr>
<tr>
<td>Calcium Aluminate Cement</td>
<td>(CAS-No.) 65997-16-2</td>
<td>1 – 5</td>
<td>Skin Irrit. 2, H315 Eye Irrit. 2B, H320</td>
</tr>
<tr>
<td>quartz</td>
<td>(CAS-No.) 14808-60-7</td>
<td>1 – 5</td>
<td>Carc. 1A, H350</td>
</tr>
<tr>
<td>cristobalite</td>
<td>(CAS-No.) 14464-46-1</td>
<td>0.1 – 0.5</td>
<td>Carc. 1A, H350</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements : 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 : Allow affected person to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact: Wash with plenty of soap and water. Wash contaminated clothing before reuse.
First-aid measures after eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

### 4.2. Most important symptoms and effects (acute and delayed)

- **Potential Adverse human health effects and symptoms**: Based on available data, the classification criteria are not met.
- **Symptoms/effects after inhalation**: May cause cancer by inhalation. Danger of serious damage to health by prolonged exposure through inhalation.
- **Symptoms/effects after skin contact**: Causes skin irritation.
- **Symptoms/effects after eye contact**: Causes eye irritation.

### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available.

### SECTION 5: Fire-fighting measures

- **5.1. Suitable (and unsuitable) extinguishing media**
  - Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.
  - Unsuitable extinguishing media: In case of fire, all extinguishing media allowed.

- **5.2. Specific hazards arising from the chemical**
  - Fire hazard: Not flammable.
  - Firefighting instructions: Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
  - Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

- **6.1. Personal precautions, protective equipment and emergency procedures**
  - **6.1.1. For non-emergency personnel**
    - Emergency procedures: Do not breathe dust.

- **6.2. Environmental precautions**
  - Prevent entry to sewers and public waters.

- **6.3. Methods and material for containment and cleaning up**
  - Methods for cleaning up: On land, sweep or shovel into suitable containers. Minimize generation of dust.

- **6.4. Reference to other sections**
  - See Heading 8. Exposure controls and personal protection.

### SECTION 7: Handling and storage

- **7.1. Precautions for safe handling**
  - Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Avoid raising dust. Avoid contact with skin and eyes. Do not breathe dust.
  - Hygiene measures: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

- **7.2. Conditions for safe storage, including any incompatibilities**
  - Storage conditions: Store this product in a dry location where it can be protected from the elements.

### SECTION 8: Exposure controls/personal protection

- **8.1. Control parameters**
  - **Unicrete 60 Flowz (Mixture)**: No additional information available.
  - **Calcium Aluminate Cement (65997-16-2)**: No additional information available.
  - **cristobalite (14464-46-1)**: No additional information available.
  - **USA - ACGIH - Occupational Exposure Limits**
    - ACGIH TWA (mg/m³): 0.025 mg/m³ respirable dust
  - **USA - OSHA - Occupational Exposure Limits**
    - OSHA PEL (TWA) (mg/m³): 0.05 mg/m³ respirable dust
  - **aluminium oxide, non-fibrous (1344-28-1)**
    - **USA - ACGIH - Occupational Exposure Limits**
      - ACGIH TWA (mg/m³): 1 mg/m³ respirable dust
8.2. **Appropriate engineering controls**

Appropriate engineering controls: Provide adequate ventilation to minimize dust concentrations.

8.3. **Individual protection measures/Personal protective equipment**

**Personal protective equipment:**

Avoid all unnecessary exposure.

- **Hand protection:**
  Wear protective gloves.

- **Eye protection:**
  Chemical goggles or safety glasses

- **Skin and body protection:**
  Wear suitable protective clothing

- **Respiratory protection:**
  Wear appropriate mask

**Other information:**
Do not eat, drink or smoke during use.

### 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>Granular mixture</td>
</tr>
<tr>
<td>Color</td>
<td>Gray</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not applicable</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>&gt; 3000 °F</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Critical temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative evaporation rate (ether=1)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non flammable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure at 50 °C</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>≈ 2.6</td>
</tr>
<tr>
<td>Solubility</td>
<td>Slightly soluble</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (Log Pow)</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</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**

Hydraulic setting.
## 10. Chemical stability
Stable under normal conditions of use.

### 10.3. Possibility of hazardous reactions
Not established.

### 10.4. Conditions to avoid
Avoid dust formation.

### 10.5. Incompatible materials
Strong acids. Strong bases.

### 10.6. Hazardous decomposition products
No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects
<table>
<thead>
<tr>
<th>Acute toxicity (oral)</th>
<th>Not classified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (dermal)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Acute toxicity (inhalation)</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

#### aluminium oxide, non-fibrous (1344-28-1)

| LD50 oral rat | > 15900 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / Female, Experimental value, Oral) |
| LC50 Inhalation - Rat | 7.6 mg/l air (Equivalent or similar to OECD 403, 1 h, Rat, Male, Experimental value, Inhalation (aerosol)) |

### quartz (14808-60-7)

| IARC group | 1 - Carcinogenic to humans |
| Reproductive toxicity | Not classified |
| STOT-single exposure | Not classified |
| STOT-repeated exposure | Not classified |
| Aspiration hazard | Not classified |
| Viscosity, kinematic | No data available |
| Potential Adverse human health effects and symptoms | Based on available data, the classification criteria are not met. |

#### Symptoms/effects after inhalation
May cause cancer by inhalation. Danger of serious damage to health by prolonged exposure through inhalation.

#### Symptoms/effects after skin contact
Causes skin irritation.

#### Symptoms/effects after eye contact
Causes eye irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity
No additional information available

### 12.2. Persistence and degradability

#### Unicrete 60 Flowz (Mixture)
Persistence and degradability | Not established.

#### cristobalite (14464-46-1)
Persistence and degradability | Mineral. Not applicable.
Chemical oxygen demand (COD) | Not applicable
ThOD | Not applicable
BOD (% of ThOD) | Not applicable

#### aluminium oxide, non-fibrous (1344-28-1)
Persistence and degradability | Not applicable.
Chemical oxygen demand (COD) | Not applicable
ThOD | Not applicable

#### quartz (14808-60-7)
Persistence and degradability | Not applicable.
Biochemical oxygen demand (BOD) | Not applicable
Chemical oxygen demand (COD) | Not applicable
ThOD | Not applicable

### 12.3. Bioaccumulative potential

#### Unicrete 60 Flowz (Mixture)
Bioaccumulative potential | Not established.
### 12.4. Mobility in soil

<table>
<thead>
<tr>
<th>Material</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>cristobalite (14464-46-1)</td>
<td>No data available.</td>
</tr>
<tr>
<td>aluminium oxide, non-fibrous (1344-28-1)</td>
<td>No data available.</td>
</tr>
<tr>
<td>quartz (14808-60-7)</td>
<td>No data available.</td>
</tr>
</tbody>
</table>

#### Ecology - soil

<table>
<thead>
<tr>
<th>Material</th>
<th>Bioaccumulative potential</th>
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<tbody>
<tr>
<td>cristobalite (14464-46-1)</td>
<td>No data available.</td>
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<tr>
<td>aluminium oxide, non-fibrous (1344-28-1)</td>
<td>No data available.</td>
</tr>
</tbody>
</table>

### 12.5. Other adverse effects

**Effect on the global warming**: None known

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

- **Product/Packaging disposal recommendations**: Dispose in a safe manner in accordance with local/national regulations.

#### Ecology - waste materials

- **Avoid release to the environment.**

### SECTION 14: Transport information

#### Department of Transportation (DOT)

- Not regulated

#### Transportation of Dangerous Goods

- Not regulated

#### Transport by sea

- Not regulated

#### Air transport

- Not regulated

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

- **Unicrete 60 Flowz (Mixture)**
  - All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

#### aluminium oxide, non-fibrous (1344-28-1)

- Not subject to reporting requirements of the United States SARA Section 313

#### Note

Note: The section 313 chemical list contains "CAS # 1344-28-1 Aluminum Oxide (Fibrous forms)"; the Aluminum oxide contained in this product is non-fibrous, and thus is not a section 313 material. Only manufacturing, processing, or otherwise use of aluminum oxide in the fibrous form triggers reporting.

#### 15.2. International regulations

##### CANADA

- **Calcium Aluminate Cement (65997-16-2)**
  - Listed on the Canadian DSL (Domestic Substances List)

#### cristobalite (14464-46-1)

- Listed on the Canadian DSL (Domestic Substances List)

#### aluminium oxide, non-fibrous (1344-28-1)

- Listed on the Canadian DSL (Domestic Substances List)

##### EU-Regulations

- No additional information available

##### National regulations

- **quartz (14808-60-7)**
  - Listed on IARC (International Agency for Research on Cancer)

### 15.3. US State regulations

- **Unicrete 60 Flowz (Mixture)**
  - **U.S. - California - Proposition 65 - Other information**: This product contains crystalline silica, a chemical known to the state of California to cause cancer. For more information go to WWW.P65Warnings.ca.gov
### Cristobalite (14464-46-1)

<table>
<thead>
<tr>
<th>Component</th>
<th>State or local regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cristobalite (14464-46-1)</td>
<td>U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
</tbody>
</table>

Yes No No

<table>
<thead>
<tr>
<th>Component</th>
<th>State or local regulations</th>
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<tbody>
<tr>
<td>aluminium oxide, non-fibrous (1344-28-1)</td>
<td>U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
</tbody>
</table>

No No No

<table>
<thead>
<tr>
<th>Component</th>
<th>State or local regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz (14808-60-7)</td>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
</tbody>
</table>

No No No

### SECTION 16: Other information

Report language name. English. In the event of any conflict between English and other language versions, the English version shall prevail.

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H-Phrase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H320</td>
<td>Causes eye irritation</td>
</tr>
<tr>
<td>H350</td>
<td>May cause cancer</td>
</tr>
</tbody>
</table>

SDS US (GHS HazCom 2012)

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