

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
 Product name : Vibrocast EZ 80  
 CAS-No. : Mixture  
 Product code : 1543  
 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](mailto:SDS@RescoProducts.com) - [WWW.RescoProducts.com](http://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

| Name                         | Product identifier   | %       | GHS US classification                      |
|------------------------------|----------------------|---------|--|
| aluminium oxide, non-fibrous | (CAS-No.) 1344-28-1  | 50 – 75 | Not classified                             |
| Calcium Aluminate Cement     | (CAS-No.) 65997-16-2 | 5 – 10  | Skin Irrit. 2, H315<br>Eye Irrit. 2B, H320 |
| quartz                       | (CAS-No.) 14808-60-7 | 1 – 5   | Carc. 1A, H350                             |
| cristobalite                 | (CAS-No.) 14464-46-1 | 0.5 – 1 | Carc. 1A, H350                             |

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.

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- 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.

### 5.3. Special protective equipment and precautions for fire-fighters

- 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.

#### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.  
Emergency procedures : Ventilate area.

### 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.  
Incompatible products : Strong bases. Strong acids.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

|   |  |
|---|--|
| <b>Vibrocast EZ 80 (Mixture)</b>                  |  |
| No additional information available               |  |
| <b>Calcium Aluminate Cement (65997-16-2)</b>      |  |
| No additional information available               |  |
| <b>crystalite (14464-46-1)</b>                    |  |
| <b>USA - ACGIH - Occupational Exposure Limits</b> |  |
| ACGIH TWA (mg/m <sup>3</sup> )                    | 0.025 mg/m <sup>3</sup> respirable dust  |
| <b>USA - OSHA - Occupational Exposure Limits</b>  |  |
| OSHA PEL (TWA) (mg/m <sup>3</sup> )               | 0.05 mg/m <sup>3</sup> respirable dust   |
| <b>aluminium oxide, non-fibrous (1344-28-1)</b>   |  |
| <b>USA - ACGIH - Occupational Exposure Limits</b> |  |
| ACGIH TWA (mg/m <sup>3</sup> )                    | 1 mg/m <sup>3</sup> respirable dust  |
| <b>quartz (14808-60-7)</b>                        |  |
| <b>USA - ACGIH - Occupational Exposure Limits</b> |  |
| ACGIH TWA (mg/m <sup>3</sup> )                    | 0.025 mg/m <sup>3</sup> (Silica-Crystalline Quartz; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Respirable fraction) |

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### USA - OSHA - Occupational Exposure Limits

|                                     |   |
|-------------------------------------|---|
| Local name                          | Silica, crystalline quartz, respirable dust |
| OSHA PEL (TWA) (mg/m <sup>3</sup> ) | 0.05 mg/m <sup>3</sup> respirable dust      |
| Remark (OSHA)                       | (3) See Table Z-3.                          |

### 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

|   |                     |
|---|---------------------|
| Physical state                                  | : Solid             |
| Appearance                                      | : Granular mixture. |
| Color   | : Light gray        |
| Odor  | : earthy            |
| Odor threshold                                  | : Not applicable    |
| pH  | : No data available |
| Melting point                                   | : > 3000 °F         |
| Freezing point                                  | : Not applicable    |
| Boiling point                                   | : Not applicable    |
| Critical temperature                            | : Not applicable    |
| Flash point                                     | : Not applicable    |
| Relative evaporation rate (butyl acetate=1)     | : Not applicable    |
| Relative evaporation rate (ether=1)             | : Not applicable    |
| Flammability (solid, gas)                       | : Non flammable.    |
| Vapor pressure                                  | : No data available |
| Vapor pressure at 50 °C                         | : Not Applicable    |
| Relative vapor density at 20 °C                 | : No data available |
| Relative density                                | : ≈ 2.7             |
| Solubility                                      | : Slightly soluble. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature                       | : Not applicable    |
| Decomposition temperature                       | : No data available |
| Viscosity, kinematic                            | : No data available |
| Viscosity, dynamic                              | : No data available |
| Explosion limits                                | : Not applicable    |
| Explosive properties                            | : No data available |
| Oxidizing properties                            | : No data available |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Hydraulic setting.

### 10.2. Chemical stability

Stable under normal conditions of use.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Avoid dust formation.

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### 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

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

| 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, 14 day(s))           |
| LC50 Inhalation - Rat                    | > 2.3 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s)) |

Skin corrosion/irritation : Causes skin irritation.  
Serious eye damage/irritation : Causes eye irritation.  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : May cause cancer (Inhalation).

| 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

| aluminium oxide, non-fibrous (1344-28-1) |  |
|--|--|
| LC50 fish 1                              | > 100 mg/l (96 h, Salmo trutta, Literature study)  |
| EC50 Daphnia 1                           | > 100 mg/l (48 h, Daphnia magna, Literature study) |

### 12.2. Persistence and degradability

| Vibrocast EZ 80 (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

| Vibrocast EZ 80 (Mixture) |                    |
|---------------------------|--------------------|
| Bioaccumulative potential | Not established.   |
| cristobalite (14464-46-1) |                    |
| Bioaccumulative potential | No data available. |

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| <b>aluminium oxide, non-fibrous (1344-28-1)</b> |                    |
|---|--------------------|
| Bioaccumulative potential                       | No data available. |

| <b>quartz (14808-60-7)</b> |                    |
|----------------------------|--------------------|
| Bioaccumulative potential  | No data available. |

### 12.4. Mobility in soil

| <b>crystalite (14464-46-1)</b> |                    |
|--------------------------------|--------------------|
| Ecology - soil                 | No data available. |

| <b>aluminium oxide, non-fibrous (1344-28-1)</b> |                                     |
|---|-------------------------------------|
| Surface tension                                 | No data available in the literature |
| Ecology - soil                                  | No data available.                  |

### 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)

In accordance with 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

#### **Vibrocast EZ 80 (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)

#### **crystalite (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

#### **Vibrocast EZ 80 (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 <a href="http://WWW.P65Warnings.ca.gov">WWW.P65Warnings.ca.gov</a> |
|--|--|

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| cristobalite (14464-46-1)                                      |  |  |  |                                     |  |
|--|--|--|--|-------------------------------------|--|
| U.S. - California<br>- Proposition 65<br>- Carcinogens<br>List | U.S. - California<br>- Proposition 65<br>- Developmental<br>Toxicity | U.S. - California -<br>Proposition 65 -<br>Reproductive<br>Toxicity - Female | U.S. - California -<br>Proposition 65 -<br>Reproductive Toxicity<br>- Male | No significant risk level<br>(NSRL) | Maximum allowable<br>dose level (MADL) |
| Yes  | No   | No   | No   |                                     |  |

| quartz (14808-60-7)  |  |  |  |                                     |  |
|--|--|--|--|-------------------------------------|--|
| U.S. - California<br>- Proposition 65<br>- Carcinogens<br>List | U.S. - California<br>- Proposition 65<br>- Developmental<br>Toxicity | U.S. - California -<br>Proposition 65 -<br>Reproductive<br>Toxicity - Female | U.S. - California -<br>Proposition 65 -<br>Reproductive Toxicity<br>- Male | No significant risk level<br>(NSRL) | Maximum allowable<br>dose level (MADL) |
| Yes  | No   | No   | No   |                                     |  |

| Component                                | State or local regulations  |
|--|---|
| Cristobalite (14464-46-1)                | 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 |
| aluminium oxide, non-fibrous (1344-28-1) | 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 |
| Quartz (14808-60-7)                      | U.S. - New Jersey - Right to Know Hazardous Substance List  |

### SECTION 16: Other information

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Revision date : 03/30/2022  
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:

|      |                        |
|------|------------------------|
| H315 | Causes skin irritation |
| H320 | Causes eye irritation  |
| H350 | May cause cancer       |

SDS US (GHS HazCom 2012)

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