

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Vibrocast 3000
CAS-No. : Mixture
Product code : 0383
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

RHI Magnesita
One Robinson Plaza, Suite 300
6600 Steubenville Pike
Pittsburgh, PA, 15205
United States
T 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 labelling

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)

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | GHS-US classification |
|--------------------------|---------------------|---------|--|
| crystalite | CAS-No.: 14464-46-1 | 10 – 20 | Carc. 1A, H350 |
| Calcium Aluminate Cement | CAS-No.: 65997-16-2 | 5 – 10 | Skin Irrit. 2, H315 Eye Irrit. 2B, H320 |
| quartz | CAS-No.: 14808-60-7 | 1 – 5 | Carc. 1A, H350 |

Full text of hazard classes and H-statements : see section 16

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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 | : Gently wash with plenty of soap and water. |
| 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 | : Danger of serious damage to health by prolonged exposure through inhalation. |
| Symptoms/effects after inhalation | : Danger of serious damage to health by prolonged exposure through inhalation. May cause cancer by 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 | : Fight fire with normal precautions from a reasonable distance. |
| 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. Avoid contact with skin and eyes. |
|----------------------|--|

6.1.2. For emergency responders

| | |
|----------------------|--|
| Protective equipment | : Equip cleanup crew with proper protection. |
| Emergency procedures | : Ventilate area. On land, sweep or shovel into suitable containers. |

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. Minimise generation of dust. |
|-------------------------|---|

6.4. Reference to other sections

See Section 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

cristobalite (14464-46-1)

USA - ACGIH - Occupational Exposure Limits

| | |
|---------------|---|
| ACGIH OEL TWA | 0.025 mg/m ³ respirable dust |
|---------------|---|

USA - OSHA - Occupational Exposure Limits

| | |
|--------------|--|
| OSHA PEL TWA | 0.05 mg/m ³ respirable dust |
|--------------|--|

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| | |
|---|--|
| quartz (14808-60-7) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH OEL TWA | 0.025 mg/m ³ (Silica-Crystalline Quartz; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Respirable fraction) |
| USA - OSHA - Occupational Exposure Limits | |
| Local name | Silica, crystalline quartz, respirable dust |
| OSHA PEL TWA | 0.05 mg/m ³ 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. |
| Colour | : Grey |
| Odour | : earthy |
| Odour threshold | : No data available |
| pH | : ≈ 10.5 |
| pH solution concentration | : 10 % |
| Melting point | : > 3000 °F |
| 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. |
| Vapour pressure | : No data available |
| Relative vapour density at 20°C | : No data available |
| Relative density | : ≈ 2.2 |
| Solubility | : Slightly soluble. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : Not Applicable |
| Viscosity, dynamic | : No data available |
| Explosive limits | : No data available |
| Explosive properties | : No data available |
| Oxidising 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.

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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

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified
Skin corrosion/irritation : Causes skin irritation.
pH: \approx 10.5

Calcium Aluminate Cement (65997-16-2)

| | |
|----|-----------|
| pH | \leq 13 |
|----|-----------|

crystalite (14464-46-1)

| | |
|----|-------|
| pH | 6 – 7 |
|----|-------|

quartz (14808-60-7)

| | |
|----|-------|
| pH | 6 – 7 |
|----|-------|

Serious eye damage/irritation : Causes eye irritation.
pH: \approx 10.5

Calcium Aluminate Cement (65997-16-2)

| | |
|----|-----------|
| pH | \leq 13 |
|----|-----------|

crystalite (14464-46-1)

| | |
|----|-------|
| pH | 6 – 7 |
|----|-------|

quartz (14808-60-7)

| | |
|----|-------|
| pH | 6 – 7 |
|----|-------|

Respiratory or skin sensitisation : 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 : Not Applicable
Potential adverse human health effects and symptoms : Danger of serious damage to health by prolonged exposure through inhalation.
Symptoms/effects after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. May cause cancer by 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

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| 12.2. Persistence and degradability | |
|--|---|
| Vibrocast 3000 (Mixture) | |
| Persistence and degradability | Not established. |
| Calcium Aluminate Cement (65997-16-2) | |
| Persistence and degradability | Rapidly degradable |
| crystalite (14464-46-1) | |
| Persistence and degradability | Mineral, Not applicable. |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| BOD (% of 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 3000 (Mixture) | |
| Bioaccumulative potential | Not established. |
| crystalite (14464-46-1) | |
| Bioaccumulative potential | No data available. |
| quartz (14808-60-7) | |
| Bioaccumulative potential | No data available. |
| 12.4. Mobility in soil | |
| crystalite (14464-46-1) | |
| Ecology - soil | No data available. |
| 12.5. Other adverse effects | |
| Effect on global warming | : None known |
| Other information | : No other effects known. |
| SECTION 13: Disposal considerations | |
| 13.1. Disposal methods | |
| Product/Packaging disposal recommendations | : Dispose in a safe manner in accordance with local/national regulations. |
| SECTION 14: Transport information | |
| In accordance with DOT / TDG / IMDG / IATA 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 | |
| All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory | |

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15.2. International regulations

CANADA

Calcium Aluminate Cement (65997-16-2)

Listed on the Canadian DSL (Domestic Substances List)

crystalobalite (14464-46-1)

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 3000 (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 |
|--|--|

crystalobalite (14464-46-1)

| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No significant risk level (NSRL) | Maximum allowable dose level (MADL) |
|---|---|---|---|----------------------------------|-------------------------------------|
| Yes | No | No | No | | |

quartz (14808-60-7)

| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No significant risk level (NSRL) | Maximum allowable dose level (MADL) |
|---|---|---|---|----------------------------------|-------------------------------------|
| Yes | No | No | No | | |

Component

Cristobalite (14464-46-1)

State or local regulations

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 : 2/4/2025

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

Full text of hazard classes and H-statements

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

Safety Data Sheet (SDS), USA

This information and recommendations set forth herein are taken from sources believed to be accurate as of the date herein, however, RHI Magnesita makes no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assumes no liability to any user thereof.