



# Unicrete 28 LI

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)  
Issue date: 11/16/2016 Revision date: 10/6/2026 Supersedes: 12/11/2024

### SECTION 1 Identification

#### 1.1. Product identifier

Product form : Mixture  
Product name : Unicrete 28 LI  
CAS-No. : Mixture  
Product code : 3124

#### 1.2. Other means of identification

Other means of identification : Alumina-Silicate Cement Bonded Castable

#### 1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Refractory  
Recommended use : Industrial use

#### 1.4. Supplier's details

RHI Magnesita  
425 South Salem Church Road  
York, PA, 17408  
United States  
T 717-792-3611  
[Resco SDS.TDS@rhimagnesita.com](mailto:Resco_SDS.TDS@rhimagnesita.com) - [WWW.RescoProducts.com](http://WWW.RescoProducts.com)

#### 1.5. Emergency phone number

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

### SECTION 2 Hazard 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. Label elements

##### 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 or attention.  
P337+P313 - If eye irritation persists: Get medical advice or attention.  
P260 - Do not breathe dust.

#### 2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

#### 2.4. Hazards not otherwise classified

No additional information available

#### 2.5. Unknown acute toxicity

No additional information available

### SECTION 3 Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

| Name                     | Product identifier  | %       | GHS US classification                      |
|--------------------------|---------------------|---------|--------------------------------------------|
| Calcium Aluminate Cement | CAS-No.: 65997-16-2 | 10 – 30 | Skin Irrit. 2, H315<br>Eye Irrit. 2B, H320 |

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| Name         | Product identifier  | %       | GHS US classification |
|--------------|---------------------|---------|-----------------------|
| cristobalite | CAS-No.: 14464-46-1 | 10 – 30 | Carc. 1A, H350        |
| quartz       | CAS-No.: 14808-60-7 | 1 – 5   | Carc. 1A, H350        |

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

### SECTION 4 First aid measures

#### 4.1. Description of necessary 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/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. Indication of immediate medical attention and special treatment needed, 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. Prevent entry to sewers and public waters. |
| 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

##### For non-emergency personnel

|                      |                                                          |
|----------------------|----------------------------------------------------------|
| Emergency procedures | : Do not breathe dust. Avoid contact with skin and eyes. |
|----------------------|----------------------------------------------------------|

##### For emergency responders

|                           |                                                                      |
|---------------------------|----------------------------------------------------------------------|
| Protective equipment      | : Equip cleanup crew with proper protection.                         |
| Emergency procedures      | : Ventilate area. On land, sweep or shovel into suitable containers. |
| Environmental precautions | : Prevent entry to sewers and public waters.                         |

#### 6.2. Methods and materials for containment and cleaning up

|                         |                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------|
| Methods for cleaning up | : On land, sweep or shovel into suitable containers. Minimize generation of dust. |
|-------------------------|-----------------------------------------------------------------------------------|

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 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® - Threshold Limit Values

|                 |                             |
|-----------------|-----------------------------|
| ACGIH® TLV® TWA | 0.025 mg/m³ respirable dust |
|-----------------|-----------------------------|

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|                                                  |                                                                                                                                              |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>cristobalite (14464-46-1)</b>                 |                                                                                                                                              |
| <b>USA - OSHA - Occupational Exposure Limits</b> |                                                                                                                                              |
| OSHA PEL TWA                                     | 0.05 mg/m <sup>3</sup> respirable dust                                                                                                       |
| <b>quartz (14808-60-7)</b>                       |                                                                                                                                              |
| <b>USA - ACGIH® - Threshold Limit Values</b>     |                                                                                                                                              |
| ACGIH® TLV® TWA                                  | 0.025 mg/m <sup>3</sup> (Silica-Crystalline Quartz; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Respirable fraction) |
| <b>USA - OSHA - Occupational Exposure Limits</b> |                                                                                                                                              |
| Local name                                       | Silica, crystalline quartz, respirable dust                                                                                                  |
| OSHA PEL TWA                                     | 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, such as personal protective equipment

#### Personal protective equipment:

Avoid all unnecessary exposure.

|                                    |  |
|------------------------------------|--|
| <b>Hand protection:</b>            |  |
| Wear protective gloves.            |  |
| <b>Eye protection:</b>             |  |
| Chemical goggles or safety glasses |  |
| <b>Skin and body protection:</b>   |  |
| Wear suitable protective clothing  |  |
| <b>Respiratory protection:</b>     |  |
| Wear appropriate mask              |  |

#### Other information:

Do not eat, drink or smoke during use.

## SECTION 9 Physical and chemical properties

### 9.1. Basic physical and chemical properties

|                                                 |                     |
|-------------------------------------------------|---------------------|
| Physical state                                  | : Solid             |
| Appearance                                      | : Granular mixture. |
| Color                                           | : light brown       |
| Odor                                            | : earthy            |
| Odor threshold                                  | : No data available |
| pH                                              | : ≈ 10.5            |
| pH solution concentration                       | : 10 %              |
| Melting point                                   | : > 2500 °F         |
| Freezing point                                  | : No data available |
| Boiling point                                   | : No data available |
| Flash point                                     | : No data available |
| Flammability (solid, gas)                       | : Not flammable.    |
| Vapor pressure                                  | : No data available |
| Relative vapor density at 20°C                  | : No data available |
| Relative density                                | : ≈ 1.7             |
| 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                            | : No data available |
| Explosion limits                                | : No data available |
| Particle characteristics                        | : No data available |

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

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 | $\leq 13$ |
|----|-----------|

#### cristobalite (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 | $\leq 13$ |
|----|-----------|

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

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

#### quartz (14808-60-7)

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

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  
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. Ecotoxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified  
Hazardous to the aquatic environment, long-term (chronic) : Not classified

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### 12.2. Persistence and degradability

#### Unicrete 28 LI (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

#### Unicrete 28 LI (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

|                              |                           |
|------------------------------|---------------------------|
| Ozone                        | : Not classified          |
| Effect on the global warming | : None known              |
| Fluorinated greenhouse gases | : No                      |
| Other information            | : No other effects known. |

## SECTION 13 Disposal considerations

|                                            |                                                                           |
|--------------------------------------------|---------------------------------------------------------------------------|
| 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. Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

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| Name                     | CAS-No.    | Listing | Commercial status | Flags |
|--------------------------|------------|---------|-------------------|-------|
| Calcium Aluminate Cement | 65997-16-2 | Present | Active            |       |
| cristobalite             | 14464-46-1 | Present | Active            |       |
| quartz                   | 14808-60-7 | Present | Active            |       |

### 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)

#### EU-Regulations

No additional information available

#### National regulations

##### quartz (14808-60-7)

Listed on IARC (International Agency for Research on Cancer)

### 15.3. State regulations

#### Unicrete 28 LI (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> |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

##### cristobalite (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

#### 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 |
| quartz(14808-60-7)       | U.S. - New Jersey - Right to Know Hazardous Substance List                                                                                            |

### SECTION 16 Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Revision date : 10/6/2026

Issue date : 11/16/2016

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 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.