

### Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 3/15/2015 Revision date: 8/5/2024 Supersedes: 7/19/2021

SECTION 1: Identification	
1.1. Identification	
Product form Product name CAS-No. Product code Other means of identification	: Mixture : Rescocast 4LI : Mixture : 0331 : Alumina-Silicate Cement Bonded Castable
1.2. Recommended use and restrictions on u	
	: Refractory
Recommended use	: Industrial use
<b>1.3. Supplier</b> Resco Products, Inc. One Robinson Plaza, Suite 300 6600 Steubenville Pike Pittsburgh, PA, 15205 United States T 412-494-4491 <u>SDS@RescoProducts.com</u> - <u>WWW.RescoProducts.cc</u>	<u>om</u>
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 mixtu	re
GHS US classification Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 2B Carcinogenicity Category 1A Full text of H statements : see section 16	H315 Causes skin irritation H320 Causes eye irritation H350 May cause cancer (Inhalation)
2.2. GHS Label elements, including precauti	onary statements
GHS US labeling Hazard pictograms (GHS US)	
Signal word (GHS US) Hazard statements (GHS US) Precautionary statements (GHS US)	<ul> <li>Danger</li> <li>H315 - Causes skin irritation H320 - Causes eye irritation H350 - May cause cancer (Inhalation)</li> <li>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.</li> </ul>
2.3. Other hazards which do not result in cla	ssification
No additional information available	
2.4. Unknown acute toxicity (GHS US)	
No additional information available	
SECTION 3: Composition/Information o	n ingredients
3.1. Substances	
Not applicable	
3.2. Mixtures	
Name	Product identifier % GHS US classification
Calcium Aluminate Cement	CAS-No.: 65997-16-2 20 – 50 Skin Irrit. 2, H315 Eye Irrit. 2B, H320
quartz	CAS-No.: 14808-60-7 10 – 20 Carc. 1A, H350
cristobalite	CAS-No.: 14464-46-1 1 – 5 Carc. 1A, H350
Full text of hazard classes and H-statements : see se	ction 16

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SECTION 4: First-aid measures	
4.1. Description of first aid measures	
First-aid measures general	<ul> <li>Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).</li> </ul>
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	
Potential Adverse human health effects and	: Danger of serious damage to health by prolonged exposure through inhalation.
symptoms	
Symptoms/effects after inhalation	<ul> <li>Danger of serious damage to health by prolonged exposure through inhalation. May cause cancer by inhalation.</li> </ul>
Symptoms/effects after skin contact	: Causes skin irritation.
Symptoms/effects after eye contact	: Causes eye irritation.
4.3. Immediate medical attention and speci	ial treatment, if necessary
No additional information available	
SECTION 5: Fire-fighting measures	
5.1. Suitable (and unsuitable) extinguishing	g 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 chen Fire hazard	: Not flammable.
5.3. Special protective equipment and pred	
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 measu	res
6.1. Personal precautions, protective equip	oment 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. Minimize generation of dust.
6.4. Reference to other sections	
See Heading 8. Exposure controls and personal pro	stection.
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.
5	Avoid contact with skin and eyes. Do not breathe dust.
Hygiene measures	Avoid contact with skin and eyes. Do not breathe dust. : Wash hands and other exposed areas with mild soap and water before eating, drinking or
U Hygiene measures	<ul> <li>Avoid contact with skin and eyes. Do not breathe dust.</li> <li>Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.</li> </ul>
Hygiene measures 7.2. Conditions for safe storage, including Storage conditions	<ul> <li>Avoid contact with skin and eyes. Do not breathe dust.</li> <li>Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.</li> <li>any incompatibilities</li> <li>Store this product in a dry location where it can be protected from the elements.</li> </ul>
Hygiene measures 7.2. Conditions for safe storage, including	<ul> <li>Avoid contact with skin and eyes. Do not breathe dust.</li> <li>Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.</li> </ul> any incompatibilities
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Hygiene measures <b>7.2. Conditions for safe storage, including</b> Storage conditions Incompatible products	<ul> <li>Avoid contact with skin and eyes. Do not breathe dust.</li> <li>Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.</li> <li>any incompatibilities</li> <li>Store this product in a dry location where it can be protected from the elements.</li> <li>Strong bases. Strong acids.</li> </ul>
Hygiene measures 7.2. Conditions for safe storage, including Storage conditions Incompatible products SECTION 8: Exposure controls/person 8.1. Control parameters Rescocast 4LI (Mixture)	<ul> <li>Avoid contact with skin and eyes. Do not breathe dust.</li> <li>Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.</li> <li>any incompatibilities</li> <li>Store this product in a dry location where it can be protected from the elements.</li> <li>Strong bases. Strong acids.</li> </ul>
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cristobalite (14464-46-1)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	0.025 mg/m <sup>3</sup> respirable dust
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) [1]	0.05 mg/m <sup>3</sup> respirable dust
quartz (14808-60-7)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	0.025 mg/m3 (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) [1]	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/Persona	al 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.	
<b>SECTION 9: Physical and chemical pro</b>	perties
9.1. Information on basic physical and chen	
Physical state	: Solid
Appearance	: Granular mixture.
Color	: light brown
Odor Odor threshold	: earthy : No data available
Odor threshold	
DH .	
pH pH solution concentration	: ≈ 10.5
pH solution concentration	: ≈ 10.5 : 10 %
pH solution concentration Melting point	: ≈ 10.5 : 10 % : > 2500 °F
pH solution concentration Melting point Freezing point	: ≈ 10.5 : 10 %
pH solution concentration Melting point	: ≈ 10.5 : 10 % : > 2500 °F : No data available
pH solution concentration Melting point Freezing point Boiling point	: ≈ 10.5 : 10 % : > 2500 °F : No data available : No data available
pH solution concentration Melting point Freezing point Boiling point Flash point	<ul> <li>≈ 10.5</li> <li>10 %</li> <li>&gt; 2500 °F</li> <li>No data available</li> <li>No data available</li> <li>No data available</li> <li>No data available</li> </ul>
, PH solution concentration Melting point Freezing point Boiling point Flash point Relative evaporation rate (butyl acetate=1)	<ul> <li>≈ 10.5</li> <li>10 %</li> <li>&gt; 2500 °F</li> <li>No data available</li> </ul>
PH solution concentration Melting point Freezing point Boiling point Flash point Relative evaporation rate (butyl acetate=1) Flammability (solid, gas) Vapor pressure Relative vapor density at 20°C	<ul> <li>≈ 10.5</li> <li>10 %</li> <li>&gt; 2500 °F</li> <li>No data available</li> <li>No flammable.</li> </ul>
PH solution concentration Melting point Freezing point Boiling point Flash point Relative evaporation rate (butyl acetate=1) Flammability (solid, gas) Vapor pressure Relative vapor density at 20°C Relative density	: ≈ 10.5 : 10 % : > 2500 °F : No data available : $\approx 1$
pH solution concentration Melting point Freezing point Boiling point Flash point Relative evaporation rate (butyl acetate=1) Flammability (solid, gas) Vapor pressure Relative vapor density at 20°C Relative density Solubility	: $\approx 10.5$ : 10 % : > 2500 °F : No data available : No data available : No data available : No data available : Not flammable. : No data available : No data available : No data available : No data available : $\approx 1$ : Slightly soluble.
PH solution concentration Melting point Freezing point Boiling point Flash point Relative evaporation rate (butyl acetate=1) Flammability (solid, gas) Vapor pressure Relative vapor density at 20°C Relative density Solubility Partition coefficient n-octanol/water (Log Pow)	<ul> <li>≈ 10.5</li> <li>10 %</li> <li>&gt; 2500 °F</li> <li>No data available</li> <li>No data available</li> <li>No data available</li> <li>No data available</li> <li>Not flammable.</li> <li>No data available</li> </ul>
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pH solution concentration Melting point Freezing point Boiling point Flash point Relative evaporation rate (butyl acetate=1) Flammability (solid, gas) Vapor pressure Relative vapor density at 20°C Relative density Solubility Partition coefficient n-octanol/water (Log Pow) Auto-ignition temperature Decomposition temperature Viscosity, kinematic	<ul> <li>≈ 10.5</li> <li>10 %</li> <li>&gt; 2500 °F</li> <li>No data available</li> </ul>
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No additional information available

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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.	
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	Not classified
Acute toxicity (oral) : Acute toxicity (dermal) :	Not classified Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation :	Causes skin irritation.
	pH: ≈ 10.5
Calcium Aluminate Cement (65997-16-2)	
рН	≤ 13
cristobalite (14464-46-1)	
рН	6 - 7
quartz (14808-60-7)	
рН	6 - 7
Serious eye damage/irritation :	Causes eye irritation. pH: ≈ 10.5
Calcium Aluminate Cement (65997-16-2)	
рН	≤ 13
cristobalite (14464-46-1)	
pH	6-7
	6 - 7
pH	
Respiratory or skin sensitization : Germ cell mutagenicity :	Not classified Not classified
<b>o ,</b>	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 : Potential Adverse human health effects and :	Not Applicable Danger of serious damage to health by prolonged exposure through inhalation.
symptoms	
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 : Symptoms/effects after eye contact :	Causes skin irritation. Causes eye irritation.

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SECTION 12: Ecological information	
12.1. Toxicity No additional information available	
12.2. Persistence and degradability	
Rescocast 4LI (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
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	
Rescocast 4LI (Mixture)	
Bioaccumulative potential	Not established.
cristobalite (14464-46-1)	
Bioaccumulative potential	No data available.
quartz (14808-60-7)	
Bioaccumulative potential	No data available.
12.4. Mobility in soil	
cristobalite (14464-46-1)	
Ecology - soil	No data available.
12.5. Other adverse effects	
5	None known No other effects known.
SECTION 13: Disposal considerations	
13.1. Disposal methods	
-	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	

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#### **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

**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. US State regulations

Rescocast 4LI (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)				
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 -	U.S California -	U.S California -	U.S California -	No significant risk	Maximum allowable
Proposition 65 -	Proposition 65 -	Proposition 65 -	Proposition 65 -	level (NSRL)	dose level (MADL)
Carcinogens List	Developmental Toxicity	Reproductive Toxicity	Reproductive Toxicity		, ,
-		- Female	- Male		
Yes	No	No	No		

Component	State or local regulations		
Component			
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			
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Revision date	: 8/5/2024		
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

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, Resco Products, Inc. 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.