

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
 Product name : Hi Strength 28 LI
 CAS No : Mixture
 Product code : 0911
 Other means of identification : Alumina-Silicate Cement Bonded Castable

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Refractory

1.3. Details of the supplier of the safety data sheet

Resco Products, Inc.
 One Robinson Plaza, Suite 300
 6600 Steubenville Pike
 Pittsburgh, PA 15205 - United States
 412-494-4491
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: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Irrit. 2 H315
 Eye Irrit. 2B H320
 Carc. 1A H350

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Hazard statements (GHS-US) :

Precautionary statements (GHS-US) :

Danger
 H315 - Causes skin irritation
 H320 - Causes eye irritation
 H350 - May cause cancer (Inhalation)
 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

No additional information available

2.4. Unknown acute toxicity (GHS-US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
crystalobalite	(CAS No) 14464-46-1	10 - 20	Carc. 1A, H350
Calcium Aluminate Cement	(CAS No) 65997-16-2	10 - 20	Skin Irrit. 2, H315 Eye Irrit. 2B, H320

Full text of H-phrases: 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 victim 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.

Hi Strength 28 LI

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

- 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, both acute and delayed

- Symptoms/injuries after inhalation : May cause cancer by inhalation. Danger of serious damage to health by prolonged exposure through inhalation.
- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after eye contact : Causes eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : No unsuitable extinguishing media known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Not flammable.
- Reactivity : Hydraulic setting.

5.3. Advice for firefighters

- 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.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hi Strength 28 LI (Mixture)		
ACGIH	Not applicable	
OSHA	Not applicable	
Calcium Aluminate Cement (65997-16-2)		
ACGIH	Not applicable	
OSHA	Not applicable	
cristobalite (14464-46-1)		
ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³ respirable dust
OSHA	OSHA PEL (TWA) (mg/m ³)	0.05 mg/m ³ respirable dust

8.2. Exposure controls

- 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.

Hi Strength 28 LI

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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 : brown
Odour : Earthy Odor
Odour threshold : Not applicable
pH : No data available
Relative evaporation rate (butylacetate=1) : Not applicable
Relative evaporation rate (ether=1) : Not applicable
Melting point : > 2000 °F
Freezing point : Not applicable
Boiling point : Not applicable
Flash point : Not applicable
Critical temperature : Not applicable
Auto-ignition temperature : Not applicable
Decomposition temperature : No data available
Flammability (solid, gas) : None
Vapour pressure : Not Applicable
Vapour pressure at 50 °C : Not Applicable
Critical pressure : Not applicable
Relative vapour density at 20 °C : No data available
Relative density : 2 (≥ 3)
Solubility : Water: Slight
Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : Not Applicable
Viscosity, dynamic : Not Applicable
Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Hydraulic setting.

10.2. Chemical stability

Not established.

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

crystalite (14464-46-1)

IARC group	1 - Carcinogenic to humans
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Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified

Hi Strength 28 LI

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: May cause cancer by inhalation. Danger of serious damage to health by prolonged exposure through inhalation.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

Hi Strength 28 LI (Mixture)	
Persistence and degradability	Not established.

crystalite (14464-46-1)

Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

Hi Strength 28 LI (Mixture)	
Bioaccumulative potential	Not established.

crystalite (14464-46-1)

Log Pow	Not applicable
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on ozone layer	:
Effect on the global warming	: No known ecological damage caused by this product.
Effect on the global warming	: None known
Other information	: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste 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

In accordance with DOT
Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Calcium Aluminate Cement (65997-16-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

crystalite (14464-46-1)	
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Hi Strength 28 LI

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

15.2. International regulations

CANADA

Hi Strength 28 LI (Mixture)

WHMIS Classification D2A

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

15.2.2. National regulations

15.3. US State regulations

Hi Strength 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.

crystalite (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 significance risk level (NSRL)
Yes	No	No	No	

crystalite (14464-46-1)

U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Other information : None.

Full text of H-phrases:

Carc. 1A	Carcinogenicity, Category 1A
Eye Irrit. 2B	Serious eye damage/eye irritation, Category 2B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H315	Causes skin irritation
H320	Causes eye irritation
H350	May cause cancer

SDS US (GHS HazCom 2012)

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