

## Safety Data Sheet

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

Revision date: 03/04/2019

### **SECTION 1: Identification**

1.1. Identification

Product form : Mixture

Trade name : Reno Floor Cast

Product code : 101300

1.2. Recommended use and restrictions on use

Recommended use : Refractory Applications

1.3. Supplier

Reno Refractories, Inc.

601 Reno Drive

P.O. Box 201

Morris, AL 35116 - United States T 205-647-0240 - F 205-647-6854

1.4. Emergency telephone number

Emergency number : 1-800-262-8200 CHEMTREC

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

#### **GHS US classification**

Skin corrosion/irritation, Category 1

Serious eye damage/eye irritation, Category 1

Skin sensitisation, Category 1

Carcinogenicity, Category 1A

Specific target organ toxicity — Single exposure, Category 3, Respiratory tract

irritation

Specific target organ toxicity — Repeated exposure, Category 1

Causes severe skin burns and eye damage.

Causes serious eye damage. May cause an allergic skin reaction.

May cause cancer.

May cause respiratory irritation.

Causes damage to organs through prolonged or repeated exposure.

## 2.2. GHS Label elements, including precautionary statements

### **GHS US labelling**

Hazard pictograms (GHS US)







Signal word (GHS US) : Danger

Hazard statements (GHS US) : Causes severe skin burns and eye damage.

May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation.

May cause cancer.

Causes damage to organs through prolonged or repeated exposure.

Precautionary statements (GHS US) : Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wash hands, forearms and face thoroughly after handling.

Do not eat, drink or smoke when using this product.

Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: rinse mouth. Do NOT induce vomiting

If on skin: Wash with plenty of water/...

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with

water/shower

If inhaled: Remove person to fresh air and keep comfortable for breathing

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

If exposed or concerned: Get medical advice/attention.

03/04/2019 EN (English) Page 1

# Safety Data Sheet

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

Immediately call a poison center/doctor/...

Get medical advice/attention if you feel unwell.

Specific treatment (see supplemental first aid instruction on this label)

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container to hazardous or special waste collection point, in accordance

with local, regional, national and/or international regulation

#### 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
Cement	(CAS-No.) 65997-15-1	23.375 - 25.92	Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335
Silica, crystalline – cristobalite	(CAS-No.) 14464-46-1	8.7 - 15.9	STOT RE 1, H372
Crystalline silica	(CAS-No.) 14808-60-7	9.325 - 14.42	Carc. 1A, H350 STOT RE 1, H372
Calcium sulfate (Anhydrous)	(CAS-No.) 7778-18-9	1 - 1.755	Acute Tox. 4 (Oral), H302

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 : IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell. Get medical advice/attention if you feel unwell. Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact : Rinse skin with water/shower. Wash skin with plenty of water. Take off contaminated clothing.

Take off immediately all contaminated clothing. Call a physician immediately. If skin irritation occurs: Get medical advice/attention. If skin irritation or rash occurs: Get medical

advice/attention.

First-aid measures after eye contact : Rinse eyes with water as a precaution. Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists:

Get medical advice/attention. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately. Call a poison center or a doctor if you feel unwell.

## 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Burns. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

### **SECTION 5: Fire-fighting measures**

## 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

## 5.2. Specific hazards arising from the chemical

No additional information available

03/04/2019 EN (English) 2/9

# Safety Data Sheet

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

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

Protection during firefighting

: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

#### **SECTION 6: Accidental release measures**

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

**Emergency procedures** 

: Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

#### 6.1.2. For emergency responders

Protective equipment

: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up

: Mechanically recover the product. Notify authorities if product enters sewers or public waters.

Other information

: Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

# 7.1. Precautions for safe handling

Precautions for safe handling

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.

Hygiene measures

Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

: Store in a well-ventilated place. Keep container tightly closed. Keep cool.

#### **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

Crystalline silica (14808-60-7)		
ACGIH	Local name	Silica crystaline - quartz
ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³ (Respirable fraction)
ACGIH	Remark (ACGIH)	TLV® Basis: Pulm fibrosis; lung cancer. Notations: A2 (Suspected Human Carcinogen)
ACGIH	Regulatory reference	ACGIH 2018
OSHA	Remark (OSHA)	Table Z-3. For OSHA PEL (TWA): Use formulas: (250 / (%SiO2+5)) for mppcf and (10 mg/m3 / (%SiO2+2)) for mg/m3. CAS No. source: eCFR Table Z-1.
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts
Calcium sulfate (Anhydrous) (7778-18-9)		
ACGIH	Local name	Calcium sulfate, the anhydrate
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³ (Inhalable fraction)
ACGIH	Remark (ACGIH)	TLV® Basis: Nasal symptoms
ACGIH	Regulatory reference	ACGIH 2018

03/04/2019 EN (English) 3/9

# Safety Data Sheet

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

Calcium sulfate (A	nhydrous) (7778-18-9)	
OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (Total dust) 5 mg/m³ (Respirable fraction)
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Cement (65997-15	-1)	
ACGIH	Local name	Portland cement
ACGIH	ACGIH TWA (mg/m³)	1 mg/m³ (Respirable fraction. The value is for particulate matter containing no asbestos and < 1% crystalline silica)
ACGIH	Remark (ACGIH)	TLV® Basis: Pulm func; resp symptoms; asthma. Notations: A4 (Not classifiable as a Human Carcinogen)
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (Total dust) 5 mg/m³ (Respirable fraction)
OSHA	OSHA PEL (TWA) (ppm)	50 mppcf (Silicates (less than 1% crystalline silica))
OSHA	Remark (OSHA)	Table Z-3. CAS No. source: eCFR Table Z-1.
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1 and OSHA Annotated Table Z-3 Mineral Dusts
Silica, crystalline -	- cristobalite (14464-46-1)	
ACGIH	Local name	Silica crystaline - cristobalite
ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³ (Respirable fraction)
ACGIH	Remark (ACGIH)	TLV® Basis: Pulm fibrosis; lung cancer. Notations: A2 (Suspected Human Carcinogen)
ACGIH	Regulatory reference	ACGIH 2018
OSHA	Remark (OSHA)	Table Z-3. For OSHA PEL (TWA): Use ½ the value calculated from the count or mass formulae for quartz. CAS No. source: eCFR Table Z-1.
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts

## 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

# 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Protective gloves

# Eye protection:

Safety glasses

## Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

## **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Physical state : Solid Colour : Grey

Odour : Almost odourless
Odour threshold : No data available

03/04/2019 EN (English) 4/9

# Safety Data Sheet

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

: No data available рΗ Melting point : No data available Freezing point Not applicable : No data available Boiling point Flash point : Not applicable Relative evaporation rate (butylacetate=1) : No data available Flammability (solid, gas) : Non flammable. Vapour pressure No data available : No data available Relative vapour density at 20 °C

Relative density : 2.08

Solubility : Water: < 0.1 % Log Pow : No data available : Not applicable Auto-ignition temperature : No data available Decomposition temperature : No data available Viscosity, kinematic Viscosity, dynamic No data available Explosive limits : Not applicable : No data available Explosive properties Oxidising properties : No data available

#### 9.2. Other information

No additional information available

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

## 10.2. Chemical stability

Stable under normal conditions.

## 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

## 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## **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

Calcium sulfate (Anhydrous) (7778-18-9)	
LD50 oral rat	> 1584 mg/kg bodyweight (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral)
LC50 inhalation rat (mg/l)	> 2.61 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (dust))
ATE US (oral)	500 mg/kg bodyweight

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

03/04/2019 EN (English) 5/9

# Safety Data Sheet

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

Carcinogenicity : May cause cancer.

Crystalline silica (14808-60-7)

IARC group

1 - Carcinogenic to humans

Reproductive toxicity : Not classified

STOT-single exposure : May cause respiratory irritation.

Cement (65997-15-1)
STOT-single exposure
May cause respiratory irritation.

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

Crystalline silica (14808-60-7)

STOT-repeated exposure Causes damage to organs through prolonged or repeated exposure.

Silica, crystalline - cristobalite (14464-46-1)

STOT-repeated exposure Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified Viscosity, kinematic : No data available

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Burns. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

## **SECTION 12: Ecological information**

#### 12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

Calcium sulfate (Anhydrous) (7778-18-9)		
LC50 fish 1	2980 mg/l (96 h, Lepomis macrochirus)	
Cement (65997-15-1)		
LC50 fish 1	> 1000 mg/l (96 h, Pisces)	

#### 12.2. Persistence and degradability

Crystalline silica (14808-60-7)		
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	
Calcium sulfate (Anhydrous) (7778-18-9)		
Persistence and degradability	Biodegradability: not applicable.	
Chemical oxygen demand (COD)	Not applicable	
ThOD	Not applicable	
BOD (% of ThOD)	Not applicable	
Cement (65997-15-1)		
Persistence and degradability	Biodegradability: not applicable.	
Chemical oxygen demand (COD)	Not applicable	
ThOD	Not applicable	
BOD (% of ThOD)	Not applicable	
Silica, crystalline – cristobalite (14464-46-1)		
Persistence and degradability	Biodegradability: not applicable.	

03/04/2019 EN (English) 6/9

# Safety Data Sheet

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

Silica, crystalline – cristobalite (14464-46-1)	
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

### 12.3. Bioaccumulative potential

Calcium sulfate (Anhydrous) (7778-18-9)	
Bioaccumulative potential	No bioaccumulation data available.
Cement (65997-15-1)	
Bioaccumulative potential	Bioaccumulation: not applicable.
Silica, crystalline – cristobalite (14464-46-1)	
Bioaccumulative potential	No test data available.

### 12.4. Mobility in soil

Cement (65997-15-1)		
Ecology - soil	No (test)data on mobility of the substance available.	
Silica, crystalline – cristobalite (14464-46-1)		
Ecology - soil	No (test)data on mobility of the substance available.	

#### 12.5. Other adverse effects

No additional information available

## **SECTION 13: Disposal considerations**

#### 13.1. Disposal methods

Waste treatment methods

 $: \ \, \text{Dispose of contents/container in accordance with licensed collector's sorting instructions}.$ 

## **SECTION 14: Transport information**

## **Department of Transportation (DOT)**

In accordance with DOT

Not applicable

## **Transportation of Dangerous Goods**

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

## **SECTION 15: Regulatory information**

### 15.1. US Federal regulations

## Crystalline silica (14808-60-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

## Calcium sulfate (Anhydrous) (7778-18-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

## Cement (65997-15-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

03/04/2019 EN (English) 7/9

# Safety Data Sheet

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

#### Silica, crystalline - cristobalite (14464-46-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2. International regulations

#### **CANADA**

## Crystalline silica (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List)

## Calcium sulfate (Anhydrous) (7778-18-9)

Listed on the Canadian DSL (Domestic Substances List)

### Cement (65997-15-1)

Listed on the Canadian DSL (Domestic Substances List)

### Silica, crystalline - cristobalite (14464-46-1)

Listed on the Canadian DSL (Domestic Substances List)

#### **EU-Regulations**

No additional information available

### **National regulations**

## Crystalline silica (14808-60-7)

Listed on IARC (International Agency for Research on Cancer)

## 15.3. US State regulations

Component	State or local regulations
Crystalline silica(14808-60-7)	U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List
Calcium sulfate (Anhydrous)(7778-18-9)	U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List
Cement(65997-15-1)	U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List
Silica, crystalline – 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

# **SECTION 16: Other information**

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

Revision date : 03/04/2019

#### Full text of H-statements:

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H350	May cause cancer.
H372	Causes damage to organs through prolonged or repeated exposure.

SDS US (GHS HazCom 2012)

03/04/2019 EN (English) 8/9

# Safety Data Sheet

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

The information provided in the Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of it's publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release. Reno Refractories, Inc. makes no warranties, expressed or implied, with respect to such information, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose or course of performance or usage of trade. User is responsible for determining whether the product is fit for a particular purpose and suitable for user's method of use or application. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

03/04/2019 EN (English) 9/9