

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 6/5/2023

### **SECTION 1: Identification**

#### 1.1. Identification

Product form Trade name Product code

: Mixture : Reno Lite 75 EX : 610600

#### 1.2. Recommended use and restrictions on use

Recommended use

: Refractory Applications

#### 1.3. Supplier

#### Manufacturer

Reno Refractories, Inc. 601 Reno Drive P.O. Box 201 Morris, AL, 35116 United States T 205-647-0240 - F 205-647-6854 sales@r-ref.com - www.renorefractories.com

#### 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 2	H315	Causes skin irritation	
Serious eye damage/eye irritation Category 2	H319	Causes serious eye irritation	
Carcinogenicity Category 1A	H350	May cause cancer	
Specific target organ toxicity (repeated exposure) Category 1	H372	Causes damage to organs through prolonged or repeated	
		exposure	

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

#### **GHS US labeling**

Hazard pictograms (GHS US)

Signal word (GHS US) Hazard statements (GHS US)

Precautionary statements (GHS US)



: Danger

:

- H315 Causes skin irritation
- H319 Causes serious eye irritation
- H350 May cause cancer
- H372 Causes damage to organs through prolonged or repeated exposure
- : P201 Obtain special instructions before use.
  - P202 Do not handle until all safety precautions have been read and understood.
  - P260 Do not breathe dust/fume/gas/mist/vapors/spray.
  - P264 Wash hands, forearms and face thoroughly after handling.
  - P270 Do not eat, drink or smoke when using this product.

## Safety Data Sheet

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

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 - If on skin: Wash with plenty of water.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P308+P313 - If exposed or concerned: Get medical advice/attention.

P314 - Get medical advice/attention if you feel unwell.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P405 - Store locked up.

P501 - 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)

No additional information available

### **SECTION 3: Composition/Information on ingredients**

### 3.1. Substances

#### Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	GHS US classification
Crystalline silica	CAS-No.: 14808-60-7	26.86 - 34.08	Carc. 1A, H350 STOT RE 1, H372
Calcium oxide	CAS-No.: 1305-78-8	≤ 1.18	Skin Corr. 1, H314 Eye Dam. 1, H318 STOT SE 3, H335
Titanium dioxide	CAS-No.: 13463-67-7	0.01 – 0.15	Carc. 2, H351

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

4.1. Description of first aid measures	
First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy t do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.
4.2. Most important symptoms and e	

Symptoms/effects after eye contact : Eye irritation.

# Safety Data Sheet

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

### 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 chem	nical
Hazardous decomposition products in case of fire	: Toxic fumes may be released.
5.3. Special protective equipment and prec	autions 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 measure 6.1. Personal precautions, protective equip	

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/vapors/spray.
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 Other information	<ul><li>Mechanically recover the product. Notify authorities if product enters sewers or public waters.</li><li>Dispose of materials or solid residues at an authorized site.</li></ul>		

## 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	Ensure good ventilation of the work station. 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/vapors/spray. Avoid contact with skin and eyes.		
Hygiene measures	: Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.		

# Safety Data Sheet

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

# 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

: Store in a well-ventilated place. Keep cool.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Reno Lite 75 EX	
No additional information available	
Calcium oxide (1305-78-8)	
USA - ACGIH - Occupational Exposure Limits	5
Local name	Calcium oxide
ACGIH OEL TWA	2 mg/m³
Remark (ACGIH)	TLV® Basis: URT irr
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	Calcium oxide
OSHA PEL (TWA) [1]	5 mg/m³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Titanium dioxide (13463-67-7)	
USA - ACGIH - Occupational Exposure Limits	5
Local name	Titanium dioxide
ACGIH OEL TWA	0.2 mg/m³ (Respirable fraction) 2.5 mg/m³ (Respirable fraction)
Remark (ACGIH)	TLV® Basis: LRT irr; pneumoconiosis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	Titanium dioxide (Total dust)
OSHA PEL (TWA) [1]	15 mg/m³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Crystalline silica (14808-60-7)	
USA - ACGIH - Occupational Exposure Limits	5
Local name	Silica crystaline - quartz
ACGIH OEL TWA	0.025 mg/m³ (Respirable fraction)
Remark (ACGIH)	TLV® Basis: Pulm fibrosis; lung cancer. Notations: A2 (Suspected Human Carcinogen)
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	Quartz (Respirable) (Silica: Crystalline)

# Safety Data Sheet

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

Crystalline silica (14808-60-7)	
. ,	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.
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts

### 8.2. Appropriate engineering controls

Appropriate engineering controls Environmental exposure controls

- : Ensure good ventilation of the work station.: Avoid release to the environment.
- 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment symbol(s):



# SECTION 9: Physical and chemical properties

9.1. Information on basic	physical	and chemical	properties
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Physical state	:	Solid
Appearance	:	Granular powder.
Color	:	Gray
Odor	:	Odourless
Odor threshold	:	No data available
рН	:	No data available
Melting point	:	No data available
Freezing point	:	Not applicable
Boiling point	:	No data available
Flash point	:	Not applicable
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	Non flammable.
Vapor pressure	:	No data available
Relative vapor density at 20°C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	No data available
Viscosity, kinematic	:	Not applicable

# Safety Data Sheet

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

Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing 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) Acute toxicity (dermal) Acute toxicity (inhalation)	<ul> <li>Not classified</li> <li>Not classified</li> <li>Not classified</li> </ul>
Calcium oxide (1305-78-8)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 2500 mg/kg body weight (EU Method B.3: Acute toxicity (dermal), 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 6.04 mg/l (OECD 436: Acute inhalation toxicity-acute toxic class method, 4 h, Rat, Male / female, Experimental value, Inhalation (dust), 15 day(s))
Titanium dioxide (13463-67-7)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LC50 Inhalation - Rat	> 5.09 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male, Experimental value, Inhalation (dust), 14 day(s))
Skin corrosion/irritation	: Causes skin irritation.

# Safety Data Sheet

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

Calcium oxide (1305-78-8)	
рН	12.8
Titanium dioxide (13463-67-7)	
pH	7 (aqueous suspension, 10 %)
Crystalline silica (14808-60-7)	
pH	6 – 7
Serious eye damage/irritation	: Causes serious eye irritation.
Calcium oxide (1305-78-8)	
рН	12.8
Titanium dioxide (13463-67-7)	
рН	7 (aqueous suspension, 10 %)
Crystalline silica (14808-60-7)	
рН	6 - 7
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.
Titanium dioxide (13463-67-7)	
IARC group	2B - Possibly carcinogenic to humans
Crystalline silica (14808-60-7)	
IARC group	1 - Carcinogenic to humans
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
Calcium oxide (1305-78-8)	
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.
Aspiration hazard Viscosity, kinematic	: Not classified : Not applicable
Calcium oxide (1305-78-8)	
Viscosity, kinematic	Not applicable (solid)
Titanium dioxide (13463-67-7)	
Viscosity, kinematic	Not applicable
Crystalline silica (14808-60-7)	
Viscosity, kinematic	Not applicable (solid)
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Eye irritation.

# Safety Data Sheet

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

## **SECTION 12: Ecological information**

12.1. Toxicity	
Ecology - general :	The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Calcium oxide (1305-78-8)	
LC50 - Fish [1]	50.6 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Read-across, GLP)
EC50 - Crustacea [1]	49.1 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Read-across, Locomotor effect)
ErC50 algae	184.57 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Read-across, GLP)
Titanium dioxide (13463-67-7)	
LC50 - Fish [1]	> 100 mg/l (Equivalent or similar to OECD 203, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration)
ErC50 algae	61 mg/l (EPA 600/9-78-018, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)

# 12.2. Persistence and degradability

Calcium oxide (1305-78-8)		
Persistence and degradability	Biodegradability: not applicable.	
Chemical oxygen demand (COD)	Not applicable (inorganic)	
ThOD	Not applicable (inorganic)	
Titanium dioxide (13463-67-7)		
Persistence and degradability	Biodegradability: not applicable.	
Chemical oxygen demand (COD)	Not applicable (inorganic)	
ThOD	Not applicable (inorganic)	
Crystalline silica (14808-60-7)		
Persistence and degradability	Biodegradability: not applicable.	
Chemical oxygen demand (COD)	Not applicable (inorganic)	
ThOD	Not applicable (inorganic)	

## 12.3. Bioaccumulative potential

Calcium oxide (1305-78-8)	
Bioaccumulative potential	Not bioaccumulative.
Titanium dioxide (13463-67-7)	
Bioaccumulative potential	Not bioaccumulative.
Crystalline silica (14808-60-7)	
Bioaccumulative potential	Bioaccumulation: not applicable.

# Safety Data Sheet

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

12.4. Mobility in soil	
Calcium oxide (1305-78-8)	
Surface tension	No data available in the literature
Ecology - soil	No (test)data on mobility of the substance available.
Titanium dioxide (13463-67-7)	
Surface tension	No data available in the literature
Ecology - soil	Low potential for mobility in soil.
Crystalline silica (14808-60-7)	
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	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
SECTION 14: Transport information	
In accordance with DOT / TDG / IMDG / IATA	
14.1. UN number	
Not regulated for transport	
14.2. UN proper shipping name	
Proper Shipping Name (DOT) Proper Shipping Name (TDG) Proper Shipping Name (IMDG) Proper Shipping Name (IATA)	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> </ul>
14.3. Transport hazard class(es)	
<b>DOT</b> Transport hazard class(es) (DOT)	: Not applicable
<b>TDG</b> Transport hazard class(es) (TDG)	: Not applicable
IMDG Transport hazard class(es) (IMDG)	: Not applicable
IATA Transport hazard class(es) (IATA)	: Not applicable
14.4. Packing group	
Packing group (DOT) Packing group (TDG)	<ul><li>Not applicable</li><li>Not applicable</li></ul>

## Safety Data Sheet

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

Packing group (IMDG) Packing group (IATA)	: Not applicable : Not applicable
14.5. Environmental hazards	
Other information	: No supplementary information available.

14.6. Special precautions for user

#### DOT

No data available

TDG

No data available

IMDG No data available

IATA

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## 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 oxide (1305-78-8)

Listed on the Canadian DSL (Domestic Substances List)

### Titanium dioxide (13463-67-7)

Listed on the Canadian DSL (Domestic Substances List)

#### Crystalline silica (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List)

#### **EU-Regulations**

No additional information available

#### National regulations

#### Titanium dioxide (13463-67-7)

Listed on IARC (International Agency for Research on Cancer)

### Crystalline silica (14808-60-7)

Listed on IARC (International Agency for Research on Cancer)

## Safety Data Sheet

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

15.3. US State regulations	
Component	State or local regulations
Calcium oxide(1305-78-8)	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
Titanium dioxide(13463-67-7)	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
Crystalline silica(14808-60-7)	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 : 6/5/2023

Full text of H-phrases	
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H350	May cause cancer
H351	Suspected of causing cancer
H372	Causes damage to organs through prolonged or repeated exposure

Reno Safety Data Sheet (SDS), USA

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.