

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 08/14/2019

SECTION 1: Identification	
1.1. Identification	
Product form	: Mixture
Trade name	: Reno Cast 60 CLC
Product code	: 147000
1.2. Recommended use and restrictions	
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 m	ixture
GHS US classification	
Carcinogenicity, Category 1A	May cause cancer.
Specific target organ toxicity — Repeated expos Category 1	
2.2. GHS Label elements, including prec	autionary statements
GHS US labelling	
Hazard pictograms (GHS US)	
Signal word (GHS US)	: Danger
Hazard statements (GHS US)	: May cause cancer.
Precautionary statements (GHS US)	Causes damage to organs through prolonged or repeated exposure. : Obtain special instructions before use.
Precautionary statements (GHS US)	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. Wear protective gloves/protective clothing/eye protection/face protection.
	If exposed or concerned: Get medical advice/attention.
	Get medical advice/attention if you feel unwell.
	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	n classification
No additional information available	
2.4. Unknown acute toxicity (GHS US)	
Not applicable	
<b>SECTION 3: Composition/informatio</b>	n on ingredients
3.1. Substances	
Not applicable	
3.2. Mixtures	

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Name	Product identifier	%	GHS US classification
Crystalline silica	(CAS-No.) 14808-60-7	0.7 - 1.78	Carc. 1A, H350 STOT RE 1, H372
Titanium dioxide	(CAS-No.) 13463-67-7	0.14 - 0.85	Carc. 2, H351

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.
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.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
4.2. Most important symptoms and effec	ts (acute and delayed)
No additional information available	
4.3. Immediate medical attention and spe	ecial treatment, if necessary
Treat symptomatically.	
SECTION 5: Fire-fighting measures	
5.1. Suitable (and unsuitable) extinguish	ing media
Suitable extinguishing media	: Water spray. Dry powder. Foam.
5.2. Specific hazards arising from the ch	
No additional information available	
5.3. Special protective equipment and pr	ecautions 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 meas	
6.1. Personal precautions, protective equ	
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.
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 authoriti	es if product enters sewers or public waters.
6.3. Methods and material for containme	
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	: 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/vapours/spray.
Hygiene measures	: Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
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#### 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 parame	eters	
Crystalline silica (1480	8-60-7)	
ACGIH	Local name	Silica crystaline - quartz
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (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
Titanium dioxide (1346	3-67-7)	
ACGIH	Local name	Titanium dioxide
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
ACGIH	Remark (ACGIH)	TLV® Basis: LRT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m³
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

#### 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.

<b>SECTION 9: Physical and che</b>	emical properties	
9.1. Information on basic physi	ical and chemical properties	
Physical state	: Solid	
Colour	: Colourless to white-grey	
Odour	: Almost odourless	
Odour 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	
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Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 2.53
Solubility	: Water: < 0.1 %
Log Pow	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: Not applicable
Explosive properties	: No data available
Oxidising properties	: No data available
9.2. Other information	

VOC content

: 100 %

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.

<b>SECTION 11: Toxicological informatio</b>	n
11.1. Information on toxicological effects	
Acute toxicity (dermal) :	Not classified Not classified
Acute toxicity (inhalation) :	Not classified
Titanium dioxide (13463-67-7)	
LD50 oral rat	> 5000 mg/kg bodyweight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value, Oral, 14 day(s))
LC50 inhalation rat (mg/l)	> 6.82 mg/l (Other, 4 h, Rat, Male, Experimental value, Inhalation (dust), 14 day(s))
Skin corrosion/irritation :	Not classified
Serious eye damage/irritation :	Not classified
Respiratory or skin sensitisation :	Not classified
Germ cell mutagenicity :	Not classified
Carcinogenicity :	May cause cancer.
Crystalline silica (14808-60-7)	
IARC group	1 - Carcinogenic to humans
Titanium dioxide (13463-67-7)	
IARC group	2B - Possibly carcinogenic to humans
Reproductive toxicity :	Not classified
STOT-single exposure :	Not classified
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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	: Not classified
Viscosity, kinematic	: No data available

<b>SECTION 12: Ecological informati</b>	ion
12.1. Toxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
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)

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

ErC50 (algae)

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
Titanium dioxide (13463-67-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

#### 12.3. **Bioaccumulative potential**

Titanium dioxide (13463-67-7)		
Bioaccumulative potential	Not bioaccumulative.	
12.4. Mobility in soil		
Titanium dioxide (13463-67-7)		
Titanium dioxide (13463-67-7) Ecology - soil	Low potential for mobility in soil.	
· · · · ·	Low potential for mobility in soil.	

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				

### **Department of Transportation (DOT)** In accordance with DOT

### Not applicable

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#### **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	
Titanium dioxide (13463-67-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

#### 15.2. International regulations

#### CANADA

Cry	ystalline silica (14808-60-7)
Listed on the Canadian DSL (Domestic Substances List)	
Titanium dioxide (13463-67-7)	
Listed on the Canadian DSL (Domestic Substances List)	

#### **EU-Regulations**

No additional information available

#### **National regulations**

ystalline silica (14808-60-7)	
Listed on IARC (International Agency for Research on Cancer)	
Titanium dioxide (13463-67-7)	
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
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

### **SECTION 16: Other information**

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#### Full text of H-statements:

H350	May cause cancer.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.

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SDS US (GHS HazCom 2012)

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