

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 05/14/2021

ECTION 1: Identification			
1.1. Identification			
Product form	: Mixture		
Trade name	: Reno ElectroCast™ 1110 SiC		
Product code	: 193920		
1.2. Recommended use and restriction	ons 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 sales@r-ref.com - www.renorefractories.com	<u>n</u>		
1.4. Emergency telephone number			
Emergency number	: 1-800-262-8200 CHEMTREC		
SECTION 2: Hazard(s) identification	on		
2.1. Classification of the substance o	r mixture		
GHS US classification			
Carcinogenicity Category H350 1B	May cause cancer		
Full text of H statements : see section 16			
2.2. GHS Label elements, including p	recautionary statements		
GHS US labeling			
Hazard pictograms (GHS US)			
Signal word (GHS US)	Danger		
Hazard statements (GHS US)	: H350 - May cause cancer		
Precautionary statements (GHS US)	 P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P308+P313 - If exposed or concerned: Get medical advice/attention. 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 resu	It in classification		
No additional information available			
2.4. Unknown acute toxicity (GHS US)		
Not applicable			
SECTION 3: Composition/Informa	tion on ingredients		
3.1. Substances			
Substances Not applicable 3.2. Mixtures			
Not applicable 3.2. Mixtures	Product identifier	%	GHS US classification
Not applicable	Product identifier (CAS-No.) 409-21-2	% 6 – 14	GHS US classification Carc. 1B, H350
Not applicable 3.2. Mixtures Name	Product identifier (CAS-No.) 409-21-2 (CAS-No.) 13463-67-7		

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

SECTION 4: First-aid measure	S
4.1. Description of first aid meas	ures
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/doctor/physician if you feel unwell.
4.2. Most important symptoms a	nd effects (acute and delayed)
4.3. Immediate medical attention	and special treatment, if necessary
Treat symptomatically.	
SECTION 5: Fire-fighting meas	sures
5.1. Suitable (and unsuitable) ext	
Suitable extinguishing media	: Water spray. Dry powder. Foam.
5.2. Specific hazards arising from	n the chemical
Hazardous decomposition products in o	
-	for a second to see the the first first for
	t 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	e measures
6.1. Personal precautions, protect	tive equipment and emergency procedures
6.1.1. For non-emergency personn	el
Emergency procedures	: Only gualified personnel equipped with suitable protective equipment may intervene.
6.1.2. For emergency responders	De nederlandet te bei en die en internet en itele en de die en die en die en die en internet in die en die en
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	· · ·
	authorities if product enters sewers or public waters.
6.3. Methods and material for co	
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 stor	
7.1. Precautions for safe handlin	-
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.
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.
7.2. Conditions for safe storage,	including any incompatibilities
Storage conditions	: Store in a well-ventilated place. Keep cool.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available	
Carbon Black (1333-86-4)	
USA - ACGIH - Occupational Exposure Lin	mits
Local name	Carbon black
ACGIH TWA (mg/m³)	3 mg/m ³ (Inhalable fraction)
Remark (ACGIH)	TLV® Basis: Bronchitis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
Regulatory reference	ACGIH 2020
USA - OSHA - Occupational Exposure Lin	nits
Local name	Carbon black
OSHA PEL (TWA) (mg/m ³)	3.5 mg/m ³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Titanium dioxide (13463-67-7)	
USA - ACGIH - Occupational Exposure Li	mits
Local name	Titanium dioxide
ACGIH TWA (mg/m ³)	10 mg/m ³
Remark (ACGIH)	TLV® Basis: LRT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2020
USA - OSHA - Occupational Exposure Lin	nits
Local name	Titanium dioxide (Total dust)
OSHA PEL (TWA) (mg/m ³)	15 mg/m ³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Silicon carbide (409-21-2)	
USA - ACGIH - Occupational Exposure Li	mits
Local name	Silicon carbide
ACGIH TWA (mg/m³)	 3 mg/m³ (Respirable fraction. The value is for particulate matter containing no asbesto and < 1% crystalline silica) 0.1 fibers/cm³ (Respirable fibers: length > 5 µm; aspect ratio ≥ 3:1, as determined by the membrane filter method at 400-450X magnification (4-mm objective), using phase contrast illumination) 10 mg/m³ (Inhalable fraction. The value is for particulate matter containing no asbestor and < 1% crystalline silica)
Remark (ACGIH)	Non fibrous = TLV® Basis: URT irr Fibrous (including whiskers) = TLV® Basis: Mesothelioma; cancer. Notations: A2 (Suspected Human Carcinogen)
Regulatory reference	ACGIH 2020
USA - OSHA - Occupational Exposure Lin	nits
Local name	Silicon carbide
OSHA PEL (TWA) (mg/m³)	15 mg/m³ (Total dust) 5 mg/m³ (Respirable fraction)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2.	Appropriate engineering controls	
•••••	riate engineering controls mental exposure controls	Ensure good ventilation of the work station.Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

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Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear respiratory protection.

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical p	properties
9.1. Information on basic physical and cl	hemical properties
Physical state	: Solid
Appearance	: Granular powder.
Color	: Grey to black
Odor	: Almost odorless
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	: No data available
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

SECTI	ON 10: Stability and reactivity	
10.1.	Reactivity	
The proc	duct is non-reactive under normal conditions of use, storage and transport.	
10.2.	Chemical stability	
Stable u	nder normal conditions.	
10.3.	Possibility of hazardous reactions	
No dang	erous reactions known under normal conditions of use.	
10.4.	Conditions to avoid	
None un	der recommended storage and handling conditions (see section 7).	
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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	1
1.1. Information on toxicological effects	
Acute toxicity (oral)	: Not classified
	: Not classified
Acute toxicity (inhalation)	: Not classified
Carbon Black (1333-86-4)	
LD50 oral rat	> 10000 mg/kg (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value,
	Oral, 28 day(s))
LC50 Inhalation - Rat	> 4.6 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Experimental value, Inhalation (dust))
Titanium dioxide (13463-67-7)	
LD50 oral rat	> 5000 mg/kg body weight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value, Oral, 14 day(s))
LC50 Inhalation - Rat	> 6.82 mg/l (Other, 4 h, Rat, Male, Experimental value, Inhalation (dust), 14 day(s))
Silicon carbide (409-21-2)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral)
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal)
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.
Carbon Black (1333-86-4)	
IARC group	2B - Possibly carcinogenic to humans
Titanium dioxide (13463-67-7)	
IARC group	2B - Possibly carcinogenic to humans
Silicon carbide (409-21-2)	
IARC group	2A - Probably carcinogenic to humans
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available

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.
Carbon Black (1333-86-4)	
LC50 fish 1	> 1000 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, Lethal)
EC50 Daphnia 1	> 5600 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 24 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)

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Carbon Black (1333-86-4)		
ErC50 (algae)	> 10000 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)	
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

Carbon Black (1333-86-4)	
Persistence and degradability	Biodegradability in soil: not applicable. 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)
Silicon carbide (409-21-2)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

Not bioaccumulative.
Not bioaccumulative.
Bioaccumulation: not applicable.

Carbon Black (1333-86-4)	
Surface tension Not applicable (solid)	
No (test)data on mobility of the substance available. Not toxic to plants. Not toxic to animals.	
Low potential for mobility in soil.	

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal consid	erations
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
SECTION 14: Transport inform	nation
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

Carbon Black (1333-86-4)

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

Silicon carbide (409-21-2)

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

15.2. International regulations

CANADA

Carbon Black	(1333-86-4)
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LISTER OIL THE CANADIAN DOL (DOMESTIC SUDSTAILES LIST)	Listed on the Canadian DSL ((Domestic Substances List)
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Titanium dioxide (13463-67-7)

Listed on the Canadian DSL (Domestic Substances List)

Silicon carbide (409-21-2)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Carbon Black (1333-86-4)

Listed on IARC (International Agency for Research on Cancer)

Titanium dioxide (13463-67-7)

Listed on IARC (International Agency for Research on Cancer)

Silicon carbide (409-21-2)

Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

Carbon Black (1333-86-4)				
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		

Component	State or local regulations
Carbon Black(1333-86-4)	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
Silicon carbide(409-21-2)	U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List

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SECTION 16: Other information

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Rev	sion date	: 05/14/2021	
Full	text of H-phrases:		
	H350	May cause cancer	
	H351	Suspected of causing cancer	

SDS US (GHS HazCom 2012)

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.