

**SECTION 1. IDENTIFICATION**

**GHS product identifier** Silicon Carbide

**Other means of identification** SC-2 Reaction Bonded Silicon Carbide

**Relevant identified uses of the substance or mixture and uses advertised against** Solid

**RECOMMENDED USE AND RESTRICTIONS**

**Supplier's details** CoorsTek, Inc.  
 14143 Denver West Parkway, Suite 400  
 Golden, CO 80401  
 Phone: +1 303 271 7100  
 Fax: +1 303 271 7009  
 www.coorstek.com

**Emergency telephone number (with hours of operation)** +1 303 271 7100  
 7:00 AM - 4:00 PM MST

**SECTION 2. HAZARDS IDENTIFICATION**

**OSHA/HCS status** While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

**Classification of the mixture** Not classified

**GHS LABEL ELEMENTS**

**Signal word** No signal word

**Hazard Statements** No known significant effects or critical hazards

**PRECAUTIONARY STATEMENTS**

**Prevention** Not applicable

**Response** Not applicable

**Storage** Not applicable

**Disposal** Not applicable

**Hazards not otherwise classified** None known

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance/mixture** Mixture

**Other means of identification** SC-2 Reaction Bonded Silicon Carbide

**CAS NUMBER /OTHER IDENTIFIERS**

**CAS Number** Not Applicable

**Product code** Not Applicable

INGREDIENT NAME	%	CAS NUMBER
Silicon Carbide	75 - 90	409-21-2
Silicon	10 - 30	7440-21-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

**SECTION 4. FIRST AID MEASURES**
**DESCRIPTION OF NECESSARY  
FIRST AID MEASURES**

- Eye contact** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Skin contact** Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.
- Ingestion** Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

**MOST IMPORTANT SYMPTOMS/EFFECTS,  
ACUTE AND DELAYED**
**Potential acute health effects**

- Eye contact** No known significant effects or critical hazards
- Inhalation** No known significant effects or critical hazards
- Skin contact** No known significant effects or critical hazards
- Ingestion** No known significant effects or critical hazards

**SECTION 4. FIRST AID MEASURES, CONTINUED**

**OVER-EXPOSURE SIGNS/SYMPTOMS**

- Eye contact** No known significant effects or critical hazards
- Inhalation** No known significant effects or critical hazards
- Skin contact** No known significant effects or critical hazards
- Ingestion** No known significant effects or critical hazards

**INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY**

- Notes to physician** Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** No specific treatment
- Protection of first-aiders** No action shall be taken involving any personal risk or without suitable training.  
See toxicological information (Section 11)

**SECTION 5. FIRE-FIGHTING MEASURES**

**EXTINGUISHING MEDIA**

- Suitable extinguishing media** Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** None known
- Specific hazards arising from the chemical** No specific fire or explosion hazard
- Hazardous thermal decomposition products** Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
metal oxide/oxides
- Special protective actions for fire-fighters** No special measures are required.
- Special protective equipment for fire-fighters** Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

- For non-emergency personnel** No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
- For emergency responders** If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in “For non-emergency personnel”.
- Environmental precautions** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP**

- Spill** Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

**SECTION 7. HANDLING AND STORAGE**

- Precautions for safe handling** Put on appropriate personal protective equipment (see Section 8).
- Protective measures** Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed.
- Advice on general occupational hygiene** Workers should wash hands and face before eating, drinking, and smoking. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** Store in accordance with local regulations. Do not store in unlabeled containers. Store in a cool, dry location. Any dust generated during handling or processing should be removed by wet mopping or vacuuming.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**CONTROL PARAMETERS**
**Occupational exposure limits**
**INGREDIENT NAME**
**Exposure Limits**

Silicon

**NIOSH REL (United States, 10/2013)**

 TWA: 5 mg/m<sup>3</sup> 10 hours. Form: Respirable fraction

 TWA: 10 mg/m<sup>3</sup> 10 hours. Form: Total

**OSHA PEL (United States, 2/2013)**

 TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction

 TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust

**Appropriate engineering controls**

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Environmental exposure controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

**INDIVIDUAL PROTECTION MEASURE**
**Hygiene measures**

Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

**SKIN PROTECTION**
**Hand protection**

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Body protection**

Personal protective equipment for the body should be selected based on the task being performed, and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection**

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed, and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES****APPEARANCE**

<b>Physical state</b>	Solid
<b>Color</b>	Black
<b>Odor</b>	None
<b>Odor threshold</b>	Not available
<b>pH</b>	Not known
<b>Melting point/freezing point</b>	Not applicable
<b>Boiling point/boiling range</b>	Not available
<b>Flash point</b>	Not applicable
<b>Evaporation rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Not available
<b>Lower and upper explosive (flammable) limits</b>	Not applicable
<b>Vapor pressure</b>	Not applicable
<b>Vapor density</b>	Not applicable
<b>Relative density</b>	3.1
<b>Solubility</b>	Negligible solubility in water
<b>Partition coefficient: n- octanol/water</b>	Not applicable
<b>Auto-ignition temperature</b>	Not available
<b>Decomposition temperature</b>	Not available
<b>Viscosity</b>	Not applicable

**SECTION 10. STABILITY AND REACTIVITY**

<b>Reactivity</b>	No specific test data related to reactivity available for this product or its ingredients
<b>Chemical stability</b>	The product is stable.
<b>Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	None known
<b>Incompatible materials</b>	Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Acute toxicity	PRODUCT/INGREDIENT NAME	RESULT	SPECIES	DOSE	EXPOSURE
	Silicon	LD50 Oral	Rat	3160 mg/kg	-

Irritation/corrosion	PRODUCT/INGREDIENT NAME	RESULT	SPECIES	SCORE	EXPOSURE	OBSERVATION
	Silicon	Eyes - Mild Irritant	Rabbit	-	3 mg	-

**Sensitization** There is no data available.

**Mutagenicity** There is no data available.

**Carcinogenicity** There is no data available.

**Reproductive toxicity** There is no data available.

**Teratogenicity** There is no data available.

**Specific target organ toxicity (single exposure)** There is no data available.

**Specific target organ toxicity (repeated exposure)** There is no data available.

**Aspiration hazard** There is no data available.

**Information on the likely routes of exposure** Dermal Contact

**POTENTIAL ACUTE HEALTH EFFECTS**

**Eye contact** No known significant effects or critical hazards

**Inhalation** No known significant effects or critical hazards

**Skin contact** No known significant effects or critical hazards

**Ingestion** No known significant effects or critical hazards

**DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT AND LONG TERM EXPOSURE**
**Short term exposure**

**Potential immediate effects** No known significant effects or critical hazards

**Potential delayed effects** No known significant effects or critical hazards

**Long term exposure**

**Potential immediate effects** No known significant effects or critical hazards

**Potential delayed effects** No known significant effects or critical hazards

**SECTION 11. TOXICOLOGICAL INFORMATION, CONTINUED**
**POTENTIAL CHRONIC HEALTH EFFECTS**

<b>General</b>	Chronic exposure to dusts may affect breathing capacity
<b>Carcinogenicity</b>	No known significant effects or critical hazards
<b>Mutagenicity</b>	No known significant effects or critical hazards
<b>Teratogenicity</b>	No known significant effects or critical hazards
<b>Developmental effects</b>	No known significant effects or critical hazards
<b>Fertility effects</b>	No known significant effects or critical hazards

**NUMERICAL MEASURES OF TOXICITY**

<b>Acute toxicity estimates</b>	There is no data available.
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**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicological Information** There is no data available.

**Persistence and degradability** There is no data available.

**Bioaccumulative potential**

PRODUCT/INGREDIENT NAME	LogP <sub>ow</sub>	BCF	POTENTIAL
Silicon	57 to 77	-	High

**MOBILITY IN SOIL**

**Soil/water partition coefficient (K<sub>oc</sub>)** Not available

**Other adverse effects** No known significant effects or critical hazards

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal Methods** The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions, and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.



**SECTION 14. TRANSPORT INFORMATION**

Disposal Methods	DOT	IMDG	IATA
UN Number	Not regulated	Not regulated	Not regulated
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No	No	No
Special precautions for user	-	-	-
Additional information	-	-	-

AERG : Not applicable

**Special precautions for user** Transport within users' premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**SECTION 15. REGULATORY INFORMATION**

**U.S. Federal regulations** TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
 United States inventory (TSCA 8b): All components are listed or exempted.

**Clean Air Act Section 112** Not listed

**(b) Hazardous Air Pollutants (HAPs)**

**Clean Air Act Section 602 Class I Substances** Not listed

**Clean Air Act Section 602 Class II Substances** Not listed

**DEA List I Chemicals (Precursor Chemicals)** Not listed

**DEA List II Chemicals (Essential Chemicals)** Not listed

**SARA 302/304** Composition/information on ingredients: No products were found.

**SARA 304 RQ** Not applicable

**SARA 311/312** Not applicable

Composition/information on ingredients

NAME	%	FIRE HAZARD	SUDDEN RELEASE OF PRESSURE	REACTIVE	IMMEDIATE (ACUTE) HEALTH HAZARD	DELAYED (CHRONIC) HEALTH HAZARD
Silicon	≥10 - ≤25	No	No	No	Yes	No

**SARA 313** There is no data available.

**SECTION 15. REGULATORY INFORMATION, CONTINUED**

**STATE REGULATIONS**

- Massachusetts** The following components are listed: Silicon carbide; Silicon
- New York** None of the components are listed.
- New Jersey** The following components are listed: Silicon carbide; Silicon
- Pennsylvania** The following components are listed: Silicon carbide; Silicon
- California Prop. 65** No products were found.

**SECTION 16. OTHER INFORMATION**

Procedure used to derive the classification

**CLASSIFICATION**

**JUSTIFICATION**

Not classified

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**HISTORY**

- Date of issue mm/dd/yyyy** 05/31/2016
- Date of previous issue mm/dd/yyyy** 12/30/2012
- Version** 2
- Prepared by** KMK Regulatory Services Inc.

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.