

**SECTION 1. IDENTIFICATION**

**GHS product identifier** UltraSiC LP (SC-51)

**Other means of identification** Green SC-51, SC51 powder, green powder phase sintered silicon carbide, green component liquid phase sintered silicon carbide

**Product type** Solid

**RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST**

**Identified uses** Wear resistant, corrosion resistant, temperature resistant products

**Supplier's details** CoorsTek, Inc.  
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Golden, CO 80401  
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**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 substance or 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** Green SC-51, SC51 powder, green powder phase sintered silicon carbide, green component liquid phase sintered silicon carbide

**CAS NUMBER/OTHER IDENTIFIERS**

**CAS number** Not applicable

**Product code** Not available

INGREDIENT NAME	%	CAS NUMBER
Silicon carbide	85 - 95	409-21-2
Yttrium oxide	2.5 - 7.5	1314-36-9
Aluminium oxide	2.5 - 7.5	1344-28-1
Proprietary Organic Binders	3 - 6	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation. There are no 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** Not a likely route of exposure. However if ingestion occurs, seek medical attention.

**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

**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

**SECTION 4. FIRST AID MEASURES CONTINUED**

**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 firefighters** No special protection is required.
- Special protective equipment for firefighters** Firefighters 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 special protection is required. Do not touch or walk through spilled material.
- For emergency responders** No special protection is required.
- 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** 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.

**SECTION 7. HANDLING AND STORAGE**
**PRECAUTIONS FOR SAFE HANDLING**

<b>Protective measures</b>	Put on appropriate personal protective equipment (see Section 8).
<b>Advice on general occupational hygiene</b>	Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. See also Section 8 for additional information on hygiene measures.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in accordance with local regulations. Keep container tightly closed and sealed until ready for use.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**CONTROL PARAMETERS**
**Occupational exposure limits**

INGREDIENT NAME	EXPOSURE LIMITS
Proprietary Organic Binder	AIHA WEEL (United States, 10/2011). TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Aerosol.

**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 MEASURES**

**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.

**Eye/face protection** If cutting, grinding, or crushing this article, wear safety glasses and/or a face shield and employ good management practices consistent with safe machinery operation procedures.

**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** Not required under normal conditions of use

**Other skin protection** Not required under normal conditions of use

**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 [Ceramic powder]
<b>Color</b>	Gray
<b>Odor</b>	None
<b>Odor threshold</b>	Not applicable
<b>pH</b>	Not applicable
<b>Melting point</b>	Not available
<b>Boiling point</b>	Not available
<b>Flash point</b>	Not available
<b>Evaporation rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Not applicable
<b>Lower and upper explosive (flammable) limits</b>	Not applicable
<b>Vapor pressure</b>	Not available
<b>Vapor density</b>	Not applicable
<b>Relative density</b>	0.6 to 0.9
<b>Solubility</b>	Insoluble in the following materials: cold water and hot water
<b>Partition coefficient: n-octanol/water</b>	Not available
<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>	No specific data
<b>Incompatible materials</b>	None known
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11. TOXICOLOGICAL INFORMATION**

**INFORMATION ON TOXICOLOGICAL EFFECTS**

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

**Irritation/Corrosion**

PRODUCT/INGREDIENT NAME	RESULT	SPECIES	SCORE	EXPOSURE	OBSERVATION
Proprietary Organic Binder	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-

**Sensitization** There is no data available.

**Mutagenicity** There is no data available.

**CARCINOGENICITY**

**Classification**

PRODUCT/INGREDIENT NAME	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
Silicon carbide	-	2A	-	A2	-	-
Aluminium oxide	-	-	-	A4	-	-
Proprietary Organic Binder	-	-	-	A4	-	-

**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

**SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS**

**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 11. TOXICOLOGICAL INFORMATION CONTINUED**

**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

**Potential chronic health effects**

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

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

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

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

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

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

**NUMERICAL MEASURES OF TOXICITY**

**Acute toxicity estimates** There is no data available.

**SECTION 12. ECOLOGICAL INFORMATION**

**TOXICITY**

PRODUCT/INGREDIENT NAME	RESULT	SPECIES	EXPOSURE
Proprietary Organic Binder	Acute LC50 >1000000 µg/L Fresh water	Fish - Salmo salar - Parr	96 hours

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

**Bioaccumulative potential**

PRODUCT/INGREDIENT NAME	LogP <sub>ow</sub>	BCF	POTENTIAL
Proprietary Organic Binder	-	3.2	Low

**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**

	DOT CLASSIFICATION	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
Additional information	-	-	-

AERG : Not applicable

**Special precautions for user** Transport within user's 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 (b) Hazardous Air Pollutants (HAPs)** Not listed

**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



**SECTION 15. REGULATORY INFORMATION CONTINUED**
**SARA 302/304**

**Composition/information on ingredients** No products were found.

**SARA 304 RQ** Not applicable

**SARA 311/312**

**Classification** Not applicable

**Composition/information on ingredients**

NAME	%	FIRE HAZARD	SUDDEN RELEASE OF PRESSURE	REACTIVE	IMMEDIATE (ACUTE) HEALTH HAZARD	DELAYED (CHRONIC) HEALTH HAZARD
Proprietary Organic Binder	≥3 - ≤5	No	No	No	Yes	No

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

**STATE REGULATIONS**

**Massachusetts** The following components are listed: Silicon carbide; Aluminium oxide

**New York** None of the components are listed.

**New Jersey** The following components are listed: Silicon carbide; Aluminium oxide

**Pennsylvania** The following components are listed: Silicon carbide; Aluminium oxide

**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** 06/15/2017

**Version** 1

**Prepared by** KMK Regulatory Services Inc.

Notice to reader

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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.