

Section 1 - PRODUCT AND COMPANY IDENTIFICATION**Material Name**

Silicon Carbide Powder

Product Use

Industrial applications

Restrictions on Use

None known.

Details of the supplier of the safety data sheet

Entegris, Inc.
129 Concord Road
Building 2
Billerica, MA 01821
USA

Telephone Number: +1-952-556-4181

Telephone Number: +1-800-394-4083 (toll free within North America)

Emergency Telephone Number:

CHEMTREC - U.S. - 1-800-424-9300

CHEMTREC - Intl. - 1-703-527-3887

E-mail: Product.stewardship@entegris.com

Section 2 - HAZARDS IDENTIFICATION**Classification in accordance with paragraph (d) of 29 CFR 1910.1200.**

Combustible Dust

Serious Eye Damage/Eye Irritation - Category 2A

Carcinogenicity - Category 1A

Specific Target Organ Toxicity - Single Exposure - Category 1 (respiratory system)

Specific Target Organ Toxicity - Repeated Exposure - Category 1 (lungs)

GHS Label Elements**Symbol(s)****Signal Word**

Danger

Hazard Statement(s)

May form combustible dust concentrations in air.

Causes serious eye irritation.

May cause cancer.

Causes damage to organs. (respiratory system)

Causes damage to organs through prolonged or repeated exposure. (lungs)

Precautionary Statement(s)

Safety Data Sheet

Material Name: Silicon Carbide Powder

SDS ID: 0901P

Prevention

- Do not breathe dust.
- Wash thoroughly after handling.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Do not eat, drink or smoke when using this product.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.

Response

- If exposed: Call a POISON CENTER or doctor/physician.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.

Storage

- Store locked up.

Disposal

- Dispose of contents/container in accordance with local/regional/national/international regulations.

Other Hazards

- None known.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
409-21-2	Silicon carbide	>98
14808-60-7	Quartz	<1

The chemical identity and/or percentage of composition is being withheld as a trade secret.

Section 4 - FIRST AID MEASURES**Inhalation**

- If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

Skin

- Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Eyes

- Flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Then get immediate medical attention.

Ingestion

- If swallowed, get medical attention.

Most Important Symptoms/Effects**Acute**

- eye irritation, respiratory system damage

Delayed

- cancer, lung damage

Indication of any immediate medical attention and special treatment needed

- Treat symptomatically and supportively.

Section 5 - FIRE FIGHTING MEASURES**Extinguishing Media****Suitable Extinguishing Media**

Use extinguishing agents appropriate for surrounding fire.

Unsuitable Extinguishing Media

None known.

Special Hazards Arising from the Chemical

Negligible fire hazard. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Hazardous Combustion Products

oxides of carbon, oxides of silicon

Advice for firefighters

Negligible fire hazard. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Fire Fighting Measures

Move container from fire area if it can be done without risk. Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Dike for later disposal.

Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment and Emergency Procedures**

Wear personal protective clothing and equipment.

Methods and Materials for Containment and Cleaning Up

Keep unnecessary people away, isolate hazard area and deny entry. If sweeping of a contaminated area is necessary, use a dust suppressant agent. Collect spill using a vacuum cleaner with a HEPA filter or wet and scoop up dry spills. Avoid sweeping spilled dry material. Eliminate ignition sources including sources of electrical, static or frictional sparks. Keep out of water supplies and sewers. Prevent entry into waterways, sewers, basements, or confined areas. Avoid accumulation of airborne dusts. Small spills: Move containers away from spill to a safe area. Vacuum or sweep up material and place in a designated, labeled waste container. Large spills: If emergency personnel are unavailable vacuum or carefully scoop up spilled materials and place in an appropriate container for disposal. Avoid creating dusty conditions and prevent wind dispersal.

Environmental Precautions

Avoid release to the environment.

Section 7 - HANDLING AND STORAGE**Precautions for Safe Handling**

Do not breathe dust. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when using this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions.

Conditions for Safe Storage, Including any Incompatibilities

Store locked up.

Safety Data Sheet

Material Name: Silicon Carbide Powder

SDS ID: 0901P

Store and handle in accordance with all current regulations and standards. Store in a well-ventilated area. Keep container tightly closed. Store in a cool, dry place. Keep separated from incompatible substances.

Incompatible Materials

oxidizing materials, strong acids, strong bases

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION
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Component Exposure Limits

Silicon carbide	409-21-2
ACGIH:	10 mg/m3 TWA nonfibrous, inhalable particulate matter, particulate matter containing no asbestos and <1% crystalline silica ; 3 mg/m3 TWA nonfibrous, respirable particulate matter, particulate matter containing no asbestos and <1% crystalline silica ; 0.1 fiber/cm3 TWA (as determined by the membrane filter method at 400-450X magnification (4-mm objective), using phase-contrast illumination) respirable fibers, including whiskers, length >5 μm, aspect ratio >=3:1
NIOSH:	10 mg/m3 TWA total dust ; 5 mg/m3 TWA respirable dust
Quartz	14808-60-7
ACGIH:	0.025 mg/m3 TWA respirable particulate matter
NIOSH:	0.05 mg/m3 TWA respirable dust
	50 mg/m3 IDLH respirable dust
OSHA (US):	50 μg/m3 TWA
	((250)/(%SiO ₂ + 5) mppcf TWA) respirable fraction ; ((10)/(%SiO ₂ + 2) mg/m3 TWA) respirable fraction
Mexico:	0.025 mg/m3 TWA [VLE-PPT] respirable fraction

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

There are no biological limit values for any of this product's components.

Engineering Controls

Provide local exhaust or process enclosure ventilation system. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection

Wear appropriate chemical resistant clothing.

Respiratory Protection

Safety Data Sheet

Material Name: Silicon Carbide Powder

SDS ID: 0901P

Respirators depend on exposure level. SCBA with full face piece recommended during change outs and available in case of emergency.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	green powder	Physical State	solid
Odor	odorless	Color	green
Odor Threshold	Not available	pH	(neutral)
Melting Point	(Not applicable)	Boiling Point	Not applicable
Boiling Point Range	Not applicable	Freezing point	(Not applicable)
Evaporation Rate	(Not applicable)	Flammability (solid, gas)	Not flammable
Autoignition Temperature	(Not applicable)	Flash Point	(Not applicable)
Lower Explosive Limit	(Not applicable)	Decomposition temperature	>2500 °C
Upper Explosive Limit	(Not applicable)	Vapor Pressure	Not available
Vapor Density (air=1)	Not available	Specific Gravity (water=1)	Not available
Water Solubility	(insoluble)	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Kinematic viscosity	Not available
Solubility (Other)	Not available	Density	3.2 g/cc
Physical Form	powder	Molecular Weight	40.1

Section 10 - STABILITY AND REACTIVITY
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Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions

Will not polymerize.

Conditions to Avoid

Avoid accumulation of airborne dusts. Avoid contact with incompatible materials.

Incompatible Materials

oxidizing materials, strong acids, strong bases

Safety Data Sheet

Material Name: Silicon Carbide Powder

SDS ID: 0901P

Hazardous decomposition products
Thermal decomposition products
 oxides of carbon, oxides of silicon

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

respiratory system damage, lung damage, cancer

Skin Contact

mild skin irritation

Eye Contact

eye irritation

Ingestion

No information on significant adverse effects.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

Product Toxicity Data

Acute Toxicity Estimate

No data available.

Immediate Effects

eye irritation, respiratory system damage

Delayed Effects

cancer, lung damage

Irritation/Corrosivity Data

eye irritation

Respiratory Sensitization

No data available.

Dermal Sensitization

No data available.

Component Carcinogenicity

Quartz	14808-60-7
ACGIH:	A2 - Suspected Human Carcinogen
IARC:	Monograph 100C [2012] ; Monograph 68 [1997] (Group 1 (carcinogenic to humans))
NTP:	Known Human Carcinogen
DFG:	Category 1 (causes cancer in man ;inhalable fraction)
OSHA:	Present
NIOSH:	potential occupational carcinogen

Germ Cell Mutagenicity

No data available for the mixture.

Tumorigenic Data

No data available for the mixture.

Safety Data Sheet

Material Name: Silicon Carbide Powder

SDS ID: 0901P

Reproductive Toxicity

No data available for the mixture.

Specific Target Organ Toxicity - Single Exposure

respiratory system

Specific Target Organ Toxicity - Repeated Exposure

lungs

Aspiration hazard

No data available.

Medical Conditions Aggravated by Exposure

respiratory disorders

Section 12 - ECOLOGICAL INFORMATION**Component Analysis - Aquatic Toxicity**

No LOLI ecotoxicity data are available for this product's components.

Persistence and Degradability

No data available for the mixture.

Bioaccumulative Potential

This material is believed not to bioaccumulate.

Mobility

No data available for the mixture.

Other Toxicity

No data available.

Section 13 - DISPOSAL CONSIDERATIONS**Disposal Methods**

Dispose in accordance with all applicable regulations.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

Section 14 - TRANSPORT INFORMATION**US DOT Information:**

UN/NA #: Not regulated

IATA Information:

UN#: Not regulated

IMDG Information:

UN#: Not regulated

International Bulk Chemical Code

This material does not contain any chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Safety Data Sheet

Material Name: Silicon Carbide Powder

SDS ID: 0901P

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

None of this product's components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories

Combustible Dust; Carcinogenicity; Serious Eye Damage/Eye Irritation; Specific Target Organ Toxicity

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Silicon carbide	409-21-2	No	Yes	Yes	Yes	Yes
Quartz	14808-60-7	No	Yes	Yes	Yes	Yes

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

Not listed under California Proposition 65.

Component Analysis - Inventory

Silicon carbide (409-21-2)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

Quartz (14808-60-7)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

U.S. Inventory (TSCA)

All the components of this substance are listed on or are exempt from the inventory.

Section 16 - OTHER INFORMATION

NFPA Ratings

Health: 1 Fire: 0 Instability: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Preparation Date

1/15/2020

Safety Data Sheet

Material Name: Silicon Carbide Powder

SDS ID: 0901P

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC - European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL), KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; Ne - Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL - Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA - Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

Disclaimer:

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