

SAFETY DATA SHEET

Preparation Date: 12/10/2015

Revision Date: 8/9/2018

Revision Number: G2

1. IDENTIFICATION

Product identifier

Product code: S1510
Product Name: Colloidal Silicon Dioxide

Other means of identification

Synonyms: Silicon Dioxide, chemically prepared.
 Synthetic amorphous silica, not to be confused with crystalline silica such as quartz, cristobalite, or tridymite or with diatomaceous earth or other naturally occurring forms of amorphous silica that frequently contain crystalline forms
 Dioxyde de silicium, préparé chimiquement.
 Silice amorphe synthétique, qui ne doit pas être confondu avec la silice cristalline telle que le quartz, la cristobalite ou la tridymite ou avec la terre de diatomées ou d'autres formes naturelles de silice amorphe contenant fréquemment des formes cristallines (French)

CAS #: 7631-86-9
RTECS # VV7565000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Anti-caking agent. Thickening agent. Dental abrasive in toothpaste. Ceramics. Opacifying agent. In printing inks. Insulation material. Adhesives. Cosmetics.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: lbad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)
 Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Not classified

Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Colloidal Silicon Dioxide	7631-86-9	100

4. FIRST AID MEASURES

First aid measures

- General Advice:** National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.
- Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops.
- Eye Contact:** Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.
- Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. In case of shortness of breath, give oxygen. Obtain medical attention.
- Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms May cause eye/skin irritation

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: No information available.

Specific hazards: No information available.

Special Protective Actions for Firefighters

Specific Methods: No information available.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment.

Environmental precautions No information available.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe dust. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Hygroscopic. Protect from moisture. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials:

Hydrogen fluoride
Hydrofluoric acid
Chlorine trifluoride
Oxygen difluoride

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Colloidal Silicon Dioxide	7631-86-9	20mppcfTWA (80)/(% SiO ₂) mg/m ³ TWA	6 mg/m ³ TWA	None	None

Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Colloidal Silicon Dioxide	7631-86-9	None	None	None	None

Australia and Mexico

Components	CAS-No.	Australia	Mexico
Colloidal Silicon Dioxide	7631-86-9	2 mg/m ³ TWA	None

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Safety glasses with side-shields or Goggles

Skin and body protection: Long sleeved clothing
Chemical resistant apron
Gloves

Respiratory protection: Effective dust mask. Wear respirator with dust filter. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:
Solid

Appearance:
Powder.

Color:
White.

Odor:
Odorless.

Taste
Tasteless.

Formula:
SiO₂

Molecular/Formula weight (g/mole):
60.08

Flammability:
No information available

Flashpoint (°C/°F):
No information available.

Flash Point Tested according to:
Not applicable

Autoignition Temperature (°C/°F):
No information available

Lower Explosion Limit (%):
No information available

Product code: S1510

Product name: Colloidal Silicon
Dioxide

4 / 11

Upper Explosion Limit (%): No information available	Melting point/range(°C/°F): 1710 °C/3110 °F	Decomposition temperature(°C/°F): No information available
Boiling point/range(°C/°F): 2230 °C/4046 °F	Bulk density: No information available	Density (g/cm3): No information available
Specific gravity: 2.1-2.2	pH: No information available	Vapor pressure @ 20°C (kPa): No information available
Evaporation rate: No information available	Vapor density: No information available	VOC content (g/L): No information available
Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): No information available	Viscosity: No information available
Miscibility: No information available	Solubility: Insoluble in water Insoluble in Ethanol Very Slightly soluble in alkali Soluble in hot KOH or NaOH solutions Insoluble in acids except hydrofluoric acid	

10. STABILITY AND REACTIVITY

Reactivity

Vinyl acetate vapor may react vigorously in contact with Silica gel
Reactive with hydrogen fluoride (hydrofluoric acid), oxygen difluoride, chlorine trifluoride. May react vigorously with vinyl acetate vapor

Chemical stability

Stability: Hygroscopic. Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Incompatible materials. Exposure to moist air. Exposure to moisture.

Incompatible Materials: Hydrogen fluoride
Hydrofluoric acid
Chlorine trifluoride
Oxygen difluoride

Hazardous decomposition products: No information available.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:

Product code: S1510

Product name: Colloidal Silicon
Dioxide

5 / 11

Ingestion. Inhalation.

Acute Toxicity

Component Information

Colloidal Silicon Dioxide	
CAS-No.	7631-86-9

LD50/oral/rat = 7900 mg/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = >2000 mg/kg
LD50/dermal/rat = No information available
LC50/inhalation/rat = >2.2 mg/L 1 h
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = > 5000 mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = No information available

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = > 2000 mg/kg

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = >2.2 mg/l (1-hr)

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: May cause skin irritation. May cause dryness of the skin in cases of severe exposure.

Eye Contact: May cause eye irritation. May cause irritation of the eyes by mechanical action.

Inhalation May cause irritation of respiratory tract. May cause dryness and irritation to mucous membranes and respiratory tract in cases of severe exposure.

Ingestion Health injuries are not known or expected under normal use. Not expected to be a health hazard.

Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Repeated or prolonged skin contact may cause dryness and cracking of the skin.

Chronic inhalation of Amorphous silica may rarely cause Silicosis, Pneumoconiosis, bronchitis, emphysema, asthma. Symptoms may include cough, and difficulty breathing and shortness of breath (dyspnea). One case suggests a potential link between occupational exposure to silica and bronchiolitis obliterans.

Sensitization: No information available.

Mutagenic Effects: No information available

Carcinogenic effects: Not classifiable as to its carcinogenicity to humans.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Colloidal Silicon Dioxide	7631-86-9	Group 1 - Carcinogenic - Monograph 68 [1997] Supplement 7 [1987](for crystalline silica only)	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

*IARC (International Agency for Research on Cancer)
Group 3 - Not classifiable as to its carcinogenicity to humans
NTP (National Toxicology Program)*

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: No information available
Developmental Effects: No information available
Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available.
STOT - repeated exposure No information available.
Target Organs: Lungs. Respiratory system.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

Colloidal Silicon Dioxide - 7631-86-9

Freshwater Algae Data: 440 mg/L EC50 Pseudokirchneriella subcapitata 72 h
Freshwater Fish Species Data: 5000 mg/L LC50 Brachydanio rerio 96 h static 1
Water Flea Data: 7600 mg/L EC50 Ceriodaphnia dubia 48 h

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility: No information available.

Product code: S1510

Product name: Colloidal Silicon Dioxide

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Colloidal Silicon Dioxide	7631-86-9	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Class: No information available
Packing group: No information available
Emergency Response Guide Number: No information available
Marine Pollutant: No data available
DOT RQ (lbs): No information available
Special Provisions: No Information available
Symbol(s): No information available
Description: No information available

TDG (Canada)

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Marine Pollutant: No Information available
Description: No information available

ADR

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available

IMO / IMDG

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Marine Pollutant: No information available

RID

UN-No: Not Regulated

Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available

ICAO

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available

IATA

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
ERG Code: No information available
Special Provisions No information available

15. REGULATORY INFORMATION

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Colloidal Silicon Dioxide	7631-86-9	PresentACTIVE	Present KE-31032	Present	Present (1)-548	Present	Present	Present 231-545-4

U.S. Regulations

Colloidal Silicon Dioxide

Massachusetts RTK: Present
Pennsylvania RTK: Present
Minnesota - Hazardous Substance List: Present
California Directors List of Hazardous Substances: Present

FDA - Direct Food Additives 21 CFR 172.230, 21 CFR 172.480, 21 CFR 173.340
FDA - 21 CFR - Total Food Additives 160.105, 160.185, 172.230, 172.480, 173.340, 175.105, 175.300, 175.320, 176.170, 176.180, 176.200, 176.210, 177.1200, 177.2250, 177.2420, 177.2600, 178.3297, 182.90, 73.1, 73.575

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Colloidal Silicon Dioxide	7631-86-9	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis

Colloidal Silicon Dioxide	7631-86-9	None	None	None	None	None
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U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Colloidal Silicon Dioxide	7631-86-9	Not Applicable	Not Applicable

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information: Not a dangerous product according to HPR classification criteria.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

WHMIS 1988 Hazard Class

Non-controlled

Components

Colloidal Silicon Dioxide

WHMIS 1988

Uncontrolled product according to WHMIS classification criteria

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
Colloidal Silicon Dioxide	1 %

Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Colloidal Silicon Dioxide	7631-86-9	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Colloidal Silicon Dioxide	7631-86-9	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Colloidal Silicon Dioxide	7631-86-9	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Colloidal Silicon Dioxide	7631-86-9	

EU - CLP (1272/2008)

R-phrases(s)

none

S -phrases(s)

none

Product code: S1510

Product name: Colloidal Silicon Dioxide

10 / 11

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Colloidal Silicon Dioxide	7631-86-9		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

Not dangerous

16. OTHER INFORMATION

Preparation Date: 12/10/2015
Revision Date: 8/9/2018
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet