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:

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)
Ibad 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
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight %</th>
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<tbody>
<tr>
<td>Colloidal Silicon Dioxide</td>
<td>7631-86-9</td>
<td>100</td>
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</table>

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

Product code: S1510

Product name: Colloidal Silicon Dioxide
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


Incompatible Materials:
- Hydrogen fluoride
- Hydrofluoric acid
- Chlorine trifluoride
- Oxygen difluoride

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

Product code: S1510
Product name: Colloidal Silicon Dioxide
### United States

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
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<th>NIOSH</th>
<th>ACGIH</th>
<th>AIHA WEEL</th>
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<tbody>
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<td>7631-86-9</td>
<td>20mppcf TWA (80)/(% SiO2) mg/m³ TWA</td>
<td>6 mg/m³ TWA</td>
<td>None</td>
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### Canada

<table>
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<th>Canada - Quebec</th>
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### Australia and Mexico

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<th>Mexico</th>
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<tbody>
<tr>
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<td>7631-86-9</td>
<td>2 mg/m³ TWA</td>
<td>None</td>
</tr>
</tbody>
</table>

### 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

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<tr>
<td>Molecular/Formula weight (g/mole): 60.08</td>
<td>Flammability: No information available</td>
<td>Flashpoint (°C/°F): No information available</td>
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<tr>
<td>Flash Point Tested according to: Not applicable</td>
<td>Autoignition Temperature (°C/°F): No information available</td>
<td>Lower Explosion Limit (%): No information available</td>
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</tbody>
</table>

**Product code:** S1510  
**Product name:** Colloidal Silicon Dioxide
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


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
Ingestion. Inhalation.

**Acute Toxicity**

**Component Information**

<table>
<thead>
<tr>
<th>Component Information</th>
<th></th>
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</thead>
<tbody>
<tr>
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<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>7631-86-9</td>
</tr>
<tr>
<td>LD50/oral/rat =</td>
<td>7900 mg/kg Oral LD50 Rat</td>
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<tr>
<td>LD50/oral/mouse =</td>
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<td>LD50/dermal/rabbit =</td>
<td>&gt;2000 mg/kg</td>
</tr>
<tr>
<td>LD50/dermal/rat =</td>
<td>No information available</td>
</tr>
<tr>
<td>LC50/inhalation/rat =</td>
<td>&gt;2.2 mg/L 1 h</td>
</tr>
<tr>
<td>LC50/inhalation/mouse =</td>
<td>No information available</td>
</tr>
<tr>
<td>Other LD50 or LC50 information =</td>
<td>No information available</td>
</tr>
</tbody>
</table>

**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.

**Product code:** S1510 **Product name:** Colloidal Silicon Dioxide
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.

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

**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

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Colloidal Silicon Dioxide</td>
<td>7631-86-9</td>
<td>None</td>
<td>None</td>
<td>None</td>
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</tbody>
</table>

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
Packing Group: No information available
Subsidiary Risk: No information available

RID

UN-No: Not Regulated

Product code: S1510  
Product name: Colloidal Silicon Dioxide
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

<table>
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<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>U.S. TSCA</th>
<th>KOREA KECL</th>
<th>Philippines (PICCS)</th>
<th>Japan ENCS</th>
<th>CHINA</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
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<tbody>
<tr>
<td>Colloidal Silicon Dioxide</td>
<td>7631-86-9</td>
<td>Present ACTIVE</td>
<td>Present KE-31032</td>
<td>Present (1)-548</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
<td>Present 231-545-4</td>
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</table>

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
- 76.1, 76.180, 76.200, 76.210, 76.1200, 76.2250, 76.2420, 76.2600, 76.3297, 182.90, 73.1, 73.575

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


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)

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
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CERCLA/SARA

<table>
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<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPOs</th>
<th>Section 302 Extremely Hazardous Substances and ROs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
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Product code: S1510
Product name: Colloidal Silicon Dioxide
### U.S. TSCA

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
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<tbody>
<tr>
<td>Colloidal Silicon Dioxide</td>
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### Canada

#### WHIMIS 2015 - GHS Classifications

<table>
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<th>WHIMIS 2015 Hazard Classification Information</th>
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#### Canada Hazardous Products Regulation

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<th>WHMIS 1988 Hazard Class</th>
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<tbody>
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#### Canada Controlled Products Regulation:

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### Inventory

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<table>
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<tr>
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<th>CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting</th>
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#### EU Classification

#### EU GHS - SV - CLP 1272/2008

<table>
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<td>Colloidal Silicon Dioxide</td>
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#### EU - CLP (1272/2008)

**R-phrase(s)**

none

**S-phrase(s)**

none

**Product code:** S1510  **Product name:** Colloidal Silicon Dioxide
<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Classification</th>
<th>Concentration Limits:</th>
<th>Safety Phrases</th>
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The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**
Not dangerous

### 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>Preparation Date:</th>
<th>12/10/2015</th>
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<tbody>
<tr>
<td>Revision Date:</td>
<td>8/9/2018</td>
</tr>
<tr>
<td>Prepared by:</td>
<td>Sonia Owen</td>
</tr>
</tbody>
</table>

**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