

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/07/2024

Reviewed on 05/29/2024

## 1 Identification

- **Product identifier**
- **Trade name:** Silicon 200 Mesh, Powder
- **Article number:** S1922
- **CAS Number:**  
7440-21-3
- **EC number:**  
231-130-8
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Aqua Solutions, Inc.  
6913 Highway 225  
DEER PARK, TX 77536  
USA  
800-256-2586
- **Information department:**  
Technical Coordinator  
Sherman Nelson [shermann@aquasolutions.org](mailto:shermann@aquasolutions.org)
- **Emergency telephone number:**  
Chemtrec: 800-424-9300  
Canutec: 613-996-6666



## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

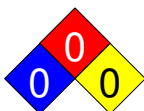
Flammable Solids 2 H228 Flammable solid.

- **Label elements**
- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02

- **Signal word** Warning
- **Hazard statements**  
Flammable solid.
- **Precautionary statements**  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Wear protective gloves/protective clothing/eye protection/face protection.  
In case of fire: Use CO2, powder or water spray to extinguish.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0  
Fire = 0  
Reactivity = 0

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## · HMIS-ratings (scale 0 - 4)

HEALTH	1
FIRE	0
REACTIVITY	0

Health = 1

Fire = 0

Reactivity = 0

- Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

## 3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description  
CAS: 7440-21-3 Silicon
- Identification number(s)
- EC number: 231-130-8

## 4 First-aid measures

- Description of first aid measures
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed  
No further relevant information available.

## 5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.

## 6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures  
Wear protective equipment. Keep unprotected persons away.
- Environmental precautions: No special measures required.
- Methods and material for containment and cleaning up: Ensure adequate ventilation.
- Reference to other sections  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- Protective Action Criteria for Chemicals
- PAC-1: 45 mg/m<sup>3</sup>

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- **PAC-2:** 100 mg/m<sup>3</sup>
- **PAC-3:** 630 mg/m<sup>3</sup>

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

CAS: 7440-21-3 Silicon

PEL	Long-term value: 15* 5** mg/m <sup>3</sup> *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m <sup>3</sup> *total dust **respirable fraction
TLV	TLV withdrawn

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.
- **Body protection:** Protective work clothing

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## 9 Physical and chemical properties

### · Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

Form: Powder

Color: Grey

· Odor: Odorless

· Odor threshold: Not determined.

· pH-value: Not applicable.

#### · Change in condition

Melting point/Melting range: 1,423 °C (34.623 °F)

Boiling point/Boiling range: 2,355 °C (36.255 °F)

· Flash point: Not applicable.

· Flammability (solid, gaseous): Product is not flammable.

· Decomposition temperature: Not determined.

· Ignition temperature: Not determined.

· Danger of explosion: Not determined.

#### · Explosion limits:

Lower: Not determined.

Upper: Not determined.

· Vapor pressure: Not applicable.

· Density at 20 °C (68 °F): 2.33 g/cm<sup>3</sup> (19.44385 lbs/gal)

· Relative density: Not determined.

· Vapor density: Not applicable.

· Evaporation rate: Not applicable.

#### · Solubility in / Miscibility with

Water: Not determined.

· Partition coefficient (n-octanol/water): Not determined.

#### · Viscosity:

Dynamic: Not applicable.

Kinematic: Not applicable.

· Other information: No further relevant information available.

## 10 Stability and reactivity

· Reactivity: No further relevant information available.

#### · Chemical stability

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· Possibility of hazardous reactions: No dangerous reactions known.

· Conditions to avoid: No further relevant information available.

· Incompatible materials: No further relevant information available.

· Hazardous decomposition products: No dangerous decomposition products known.

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## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** Substance is not listed.
- **NTP (National Toxicology Program)** Substance is not listed.
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not hazardous for water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- |                                  |                           |
|----------------------------------|---------------------------|
| · <b>UN-Number</b>               |                           |
| · <b>DOT, IMDG, IATA</b>         | UN1346                    |
| · <b>UN proper shipping name</b> |                           |
| · <b>DOT</b>                     | Silicon powder, amorphous |
| · <b>IMDG, IATA</b>              | SILICON POWDER, AMORPHOUS |

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· **Transport hazard class(es)**· **DOT**· **Class**

4.1 Flammable solids, self-reactive substances and solid desensitised explosives

· **Label**

4.1

· **IMDG, IATA**· **Class**

4.1 Flammable solids, self-reactive substances and solid desensitised explosives

· **Label**

4.1

· **Packing group**· **DOT, IMDG, IATA**

III

· **Environmental hazards:**

Not applicable.

· **Special precautions for user**

Warning: Flammable solids, self-reactive substances and solid desensitised explosives

· **Hazard identification number (Kemler code):** 40· **EMS Number:**

F-A,S-G

· **Stowage Category**

A

· **Segregation Code**

SG17 Stow "separated from" class 5.1

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **UN "Model Regulation":**

UN 1346 SILICON POWDER, AMORPHOUS, 4.1, III

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

No further relevant information available.

· **Sara**· **Section 355 (extremely hazardous substances):** Substance is not listed.· **Section 313 (Specific toxic chemical listings):** Substance is not listed.· **TSCA (Toxic Substances Control Act):** ACTIVE· **Hazardous Air Pollutants** Substance is not listed.· **Proposition 65**· **Chemicals known to cause cancer:** Substance is not listed.· **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.· **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.· **Chemicals known to cause developmental toxicity:** Substance is not listed.· **Carcinogenic categories**· **EPA (Environmental Protection Agency)** Substance is not listed.· **TLV (Threshold Limit Value)** Substance is not listed.

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- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02

- **Signal word** Warning
- **Hazard statements**  
Flammable solid.
- **Precautionary statements**  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Wear protective gloves/protective clothing/eye protection/face protection.  
In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

\*

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Environment protection department.
- **Contact:**  
Date of Preparation / Last Revision:
- **Date of preparation / last revision**  
Revision 1.2, 06/05/2024: Reviewed SDS for accuracy. MH/STN  
Revision 0.0, 04-30-2024: Creation date for SDS. STN  
06/07/2024
- **Abbreviations and acronyms:**  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Flammable Solids 2: Flammable solids – Category 2
- **\* Data compared to the previous version altered.**

US