

SAFETY DATA SHEET

Creation Date 20-July-2009

Revision Date 26-March-2024

Revision Number 4

1. Identification

Product Name Silica gel

Cat No. : 44096

CAS-No 7631-86-9
Synonyms Silica Gel Dessicant (3 mesh-646 mesh); Silica Gel

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Importer/Distributor

Fisher Scientific
112 Colonnade Road,
Ottawa, ON K2E 7L6,
Canada
Tel: 1-800-234-7437

Emergency Telephone Number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11

Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99

CHEMTREC Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

2. Hazard(s) identification

Classification

WHMIS 2015 Classification Not classified under the Hazardous Products Regulations (SOR/2015-17)

Based on available data, the classification criteria are not met

Label Elements

None required

Hazard Statements

Precautionary Statements

3. Composition/Information on Ingredients

| Component | CAS-No | Weight % |
|-----------|--------|----------|
|-----------|--------|----------|

| | | |
|---|-------------|-----|
| Silica, amorphous | 7631-86-9 | 100 |
| Silica, amorphous, precipitated and gel | 112926-00-8 | - |

4. First-aid measures

| | |
|--|---|
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur. |
| Inhalation | Remove to fresh air. Get medical attention immediately if symptoms occur. |
| Ingestion | Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur. |
| Most important symptoms/effects | None reasonably foreseeable. |
| Notes to Physician | Treat symptomatically |

5. Fire-fighting measures

| | |
|---|---|
| Suitable Extinguishing Media | Substance is nonflammable; use agent most appropriate to extinguish surrounding fire. |
| Unsuitable Extinguishing Media | No information available |
| Flash Point | Not applicable |
| Method - | No information available |
| Autoignition Temperature | No information available |
| Explosion Limits | |
| Upper | No data available |
| Lower | No data available |
| Sensitivity to Mechanical Impact | No information available |
| Sensitivity to Static Discharge | No information available |

Specific Hazards Arising from the Chemical

None known.

Hazardous Combustion Products

None known.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
1

Flammability
0

Instability
0

Physical hazards
N/A

6. Accidental release measures

| | |
|----------------------------------|--|
| Personal Precautions | Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation. |
| Environmental Precautions | Should not be released into the environment. See Section 12 for additional Ecological Information. |

Methods for Containment and Clean Up Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

7. Handling and storage

Handling Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.

Storage. Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

Exposure Guidelines

| Component | Alberta | British Columbia | Ontario TWAEV | Quebec | ACGIH TLV | OSHA PEL | NIOSH |
|---|---------|--|---------------|--------------------------|-----------|--|--|
| Silica, amorphous | | | | | | (Vacated) TWA: 6 mg/m ³ | IDLH: 3000 mg/m ³ TWA: 6 mg/m ³ |
| Silica, amorphous, precipitated and gel | | TWA: 4 mg/m ³ TWA: 1.5 mg/m ³ | | TWA: 6 mg/m ³ | | (Vacated) TWA: 6 mg/m ³ TWA: 20 mppcf : | |

Legend

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Hand Protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

| Glove material | Breakthrough time | Glove thickness | Glove comments |
|----------------|-------------------|-----------------|------------------------|
| Natural rubber | See manufacturers | - | Splash protection only |
| Nitrile rubber | recommendations | | |
| Neoprene | | | |
| PVC | | | |

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Recommended Filter type: Particle filter

Environmental exposure controls

No information available.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before

re-use. Wash hands before breaks and after work.

9. Physical and chemical properties

| | |
|--|--------------------------|
| Physical State | Solid |
| Appearance | White |
| Odor | Odorless |
| Odor Threshold | No information available |
| pH | 2.3 - 7.4 |
| Melting Point/Range | 1710 °C / 3110 °F |
| Boiling Point/Range | 2230 °C / 4046 °F |
| Flash Point | Not applicable |
| Evaporation Rate | Not applicable |
| Flammability (solid,gas) | No information available |
| Flammability or explosive limits | |
| Upper | No data available |
| Lower | No data available |
| Vapor Pressure | negligible |
| Vapor Density | Not applicable |
| Specific Gravity | 2.1 |
| Solubility | Insoluble in water |
| Partition coefficient; n-octanol/water | No data available |
| Autoignition Temperature | No information available |
| Decomposition Temperature | No information available |
| Viscosity | Not applicable |
| Molecular Formula | SiO ₂ |
| Molecular Weight | 60.08 |

10. Stability and reactivity

| | |
|----------------------------------|---|
| Reactive Hazard | None known, based on information available |
| Stability | Stable under normal conditions. |
| Conditions to Avoid | Incompatible products. Excess heat. Avoid dust formation. |
| Incompatible Materials | Strong oxidizing agents |
| Hazardous Decomposition Products | None under normal use conditions |
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Hazardous Reactions | None under normal processing. |

11. Toxicological information

Acute Toxicity

Product Information No acute toxicity information is available for this product

Component Information

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-------------------|---------------------|------------------------|-----------------|
| Silica, amorphous | >5000 mg/kg (Rat) | >2000 mg/kg (Rabbit) | - |

Toxicologically Synergistic Products No information available

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

| | |
|-----------------|--|
| Irritation | No information available |
| Sensitization | No information available |
| Carcinogenicity | The table below indicates whether each agency has listed any ingredient as a carcinogen. |

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|---|-------------|------------|------------|------------|------------|------------|
| Silica, amorphous | 7631-86-9 | Not listed | Known | Not listed | Not listed | Not listed |
| Silica, amorphous, precipitated and gel | 112926-00-8 | Not listed | Not listed | Not listed | Not listed | Not listed |

NTP: (National Toxicity Program)

NTP: (National Toxicity Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|-------------------|--------------------|----------------------|------------|---------------------|
| Silica, amorphous | EC50: 440 mg/L/72h | LC50: 5000 mg/L/96 h | Not listed | EC50: 7600 mg/L/48h |

Persistence and Degradability Insoluble in water

Bioaccumulation/ Accumulation No information available.

Mobility Is not likely mobile in the environment due its low water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. Regulatory information

International Inventories

| Component | CAS-No | DSL | NDSL | TSCA | TSCA Inventory notification - Active-Inactive | EINECS | ELINCS | NLP |
|-------------------|-----------|-----|------|------|---|-----------|--------|-----|
| Silica, amorphous | 7631-86-9 | X | - | X | ACTIVE | 231-545-4 | - | - |

| | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|
| Silica, amorphous, precipitated and gel | 112926-00-8 | X | - | - | - | - | - | - |
|---|-------------|---|---|---|---|---|---|---|

| Component | CAS-No | IECSC | KECL | ENCS | ISHL | TCSI | AICS | NZIoC | PICCS |
|---|-------------|-------|----------|------|------|------|------|-------|-------|
| Silica, amorphous | 7631-86-9 | X | KE-31032 | X | X | X | X | X | X |
| Silica, amorphous, precipitated and gel | 112926-00-8 | X | KE-32733 | X | X | X | X | X | X |

Legend:

X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances**IECSC** - Chinese Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**ENCS** - Japanese Existing and New Chemical Substances**AICS** - Australian Inventory of Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**Canada**

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

Other International Regulations**Authorisation/Restrictions according to EU REACH**

Not applicable

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

| Component | CAS-No | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|---|-------------|----------|------------------------------|---------------------------|--|
| Silica, amorphous | 7631-86-9 | Listed | Not applicable | Not applicable | Not applicable |
| Silica, amorphous, precipitated and gel | 112926-00-8 | Listed | Not applicable | Not applicable | Not applicable |

| Component | CAS-No | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|---|-------------|---|--|----------------------------|------------------------------------|
| Silica, amorphous | 7631-86-9 | Not applicable | Not applicable | Not applicable | Not applicable |
| Silica, amorphous, precipitated and gel | 112926-00-8 | Not applicable | Not applicable | Not applicable | Not applicable |

16. Other information**Prepared By**

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20-July-2009

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26-March-2024

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Revision Summary

New emergency telephone response service provider.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the

date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS