

Silica gel

1. MANUFACTURER INFORMATION

- 1) Product Name : Silica gel
- 2) Recommended use of the chemical and restrictions on use
 - A. Restrictions on use : Not available except the intended use of the product
- 3) Supplier's details

Pulsarlube GmbH	Telephone Number for Information:
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Emergency telephone number +49 (69) 8700-766-62/-63

2. Hazards identification

- 1) Classification of the substance or mixture

This substance is not classified as dangerous according to European Union legislation.
- 2) Label elements

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
- 3) Other hazards

None known.

3. Composition/information on ingredients

1) Substance

Chemicals nature	: Silicon dioxide amorphous
Formula	: SiO ₂
EC-No.	: 231-545-4
Molar mass	: 60,08 g/mol
Remarks	: No disclosure requirement according to Regulation (EC) No. 1907/2006.

- 2) Mixture

Not applicable

4. First aid measures

1) Description of first aid measures

After inhalation	: fresh air.
In case of skin contact	: Take off immediately all contaminated clothing. Rinse skin with water/shower.
After eye contact	: rinse out with plenty of water.
After swallowing	: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

2) Most important symptoms and effects, both acute and delayed

We have no description of any toxic symptoms.

3) Indication of any immediate medical attention and special treatment needed

No information available.

5. Firefighting measures

1) Extinguishing media

- | | |
|--------------------------------|---|
| Suitable extinguishing media | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media | : For this substance/mixture no limitations of extinguishing agents are given. |

2) Special hazards arising from the substance or mixture

Not combustible.

Ambient fire may liberate hazardous vapours.

3) Advice for firefighters

- | | |
|---|---|
| Special protective equipment for firefighters | : In the event of fire, wear self-contained breathing apparatus. |
| Further information | : Suppress (knock down) gases/vapours/mists with a water spray jet. |

6. Accidental release measures

1) Personal precautions, protective equipment and emergency procedures

- | | |
|------------------------------------|---|
| Advice for non-emergency personnel | : Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. |
| Advice for emergency responders | : Protective equipment see section 8. |

2) Environmental precautions

No special precautionary measures necessary.

3) Methods and materials for containment and cleaning up

Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

4) Reference to other sections

Indications about waste treatment see section 13.

7. Handling and storage precaution

1) Precautions for safe handling

- | | |
|-------------------------|---|
| Advice on safe handling | : Observe label precautions. |
| Hygiene measures | : Change contaminated clothing. Wash hands after working with |

substance.

2) Conditions for safe storage, including any incompatibilities

Storage conditions : Tightly closed. Dry.
Recommended storage temperature see product label.

3) Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. Exposure controls/personal protection

1) Control parameters

2) Exposure controls

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Eye/face protection : Safety glasses

Hand protection

full contact :	Glove material	: Nitrile rubber
	Glove thickness	: 0,11 mm
	Break through time	: > 480 min
splash contact :	Glove material	: Nitrile rubber
	Glove thickness	: 0,40 mm
	Break through time	: > 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 730 Camatril® -Velours (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Respiratory protection : required when dusts are generated.

Recommended Filter type: Filter P 1 (acc. to DIN 3181) for solid particles of inert substances

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Environmental exposure controls

No special precautionary measures necessary.

9. Physical and chemical properties

1) Information on basic physical and chemical properties

Form	: solid
Colour	: colourless
Odour	: odourless
Odour Threshold	: Not applicable

PSDS (Product Safety Data Sheet)

according to Regulation (EC) No. 1907/2006

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pH	: ca. 5 – 8 at 100 g/l 20 °C (slurry)
Melting point	: 1,710 °C
Boiling point/boiling range	: 2,230 °C
Flash point	: Not applicable
Evaporation rate	: No information available.
Flammability (solid, gas)	: The product is not flammable.
Lower explosion limit	: No information available.
Upper explosion limit	: No information available.
Vapour pressure	: No information available.
Relative vapour density	: No information available.
Density	: No information available.
Relative density	: No information available.
Water solubility	: at 20 °C insoluble
Partition coefficient: n-octanol/water	: No information available.
Auto-ignition temperature	: No information available.
Decomposition temperature	: No information available.
Viscosity, dynamic	: No information available.
Explosive properties	: Not classified as explosive.
Oxidizing properties	: none

2) Other data

Ignition temperature	: not combustible
Bulk density	: ca.750 - 800 kg/m ³
Particle size	: Particle size ca.2 - 5 mm

10. Stability and reactivity

1) Reactivity

See section 10.3

2) Chemical stability

The product is chemically stable under standard ambient conditions (room temperature)

3) Possibility of hazardous reactions

Exothermic reaction with:

Hydrogen halides, halogen oxides, alkali hydroxides, sodium, xenon hexafluoride

4) Conditions to avoid

no information available

5) Incompatible materials

no information available

6) Hazardous decomposition products

no information available

11. Toxicological information

1) Information on toxicological effects

Acute oral toxicity	: This information is not available.
Acute inhalation toxicity	: This information is not available.
Acute dermal toxicity	: LD50 Rabbit: > 5.000 mg/kg (IUCLID)
Skin irritation	: Result: No irritation OECD Test Guideline 404 (Rabbit)
Eye irritation	: Result: No eye irritation OECD Test Guideline 405 (Rabbit)

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Sensitisation	: Result: negative (Guinea pig) (IUCLID)
Germ cell mutagenicity	: Result: negative (IUCLID)
Genotoxicity in vitro Ames test	
Salmonella typhimurium	
Mutagenicity (mammal cell test): chromosome aberration.	: Result: negative (IUCLID)
Carcinogenicity	: This information is not available.
Reproductive toxicity	: This information is not available.
Teratogenicity	: This information is not available.
Specific target organ toxicity - single exposure	: This information is not available.
Specific target organ toxicity - repeated exposure	: This information is not available.
Aspiration hazard	: This information is not available.

2) Further information

This is a generally physiologically inert substance that displays no hazardous properties after oral intake and skin contact and after inhalation of its dusts as long as the total dust limit for silicic acid is adhered to. Intensive contact with the eye may lead to irritation symptoms. Handle in accordance with good industrial hygiene and safety practice.

12. Ecological information

1) Toxicity

Toxicity to daphnia and other aquatic invertebrates	: EC0 Daphnia magna (Water flea): ≥ 10.000 mg/l; 24 h OECD Test Guideline 202
Toxicity to algae	: IC50 Pseudokirchneriella subcapitata (green algae): 440 mg/l; 72 h (IUCLID) NOEC Pseudokirchneriella subcapitata (green algae): 60 mg/l; 72 h (IUCLID)

2) Persistence and degradability

No information available.

3) Bioaccumulative potential

No information available.

4) Mobility in soil

No information available.

5) Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

6) Other adverse effects

Discharge into the environment must be avoided.

13. Disposal considerations

Waste treatment methods

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

14. Transport information

Land transport (ADR/RID)	
1) - 6)	: Not classified as dangerous in the meaning of transport regulations.
Inland waterway transport (ADN)	: Not relevant
Air transport (IATA)	

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Rev 00

1) - 6) : Not classified as dangerous in the meaning of transport regulations.

Sea transport (IMDG)

1) - 6) : Not classified as dangerous in the meaning of transport regulations.

7) Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not relevant

15. Regulatory information

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

Major Accident Hazard : SEVESO III

Legislation : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : not regulated

Regulation (EC) No 850/2004 of the : not regulated

European Parliament and of the Council of 29 April 2004 on

persistent organic pollutants and amending Directive 79/117/EEC

Substances of very high concern (SVHC) : This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of $\geq 0.1\%$ (w/w).

National legislation

Storage class : 10 - 13

2) Chemical safety assessment

For this product a chemical safety assessment was not carried out.

16. OTHER INFORMATION

1) Source of the data

(1) Chemical manufacturer's information : SDS(SAFETY DATA SHEET) Data

(2) Chem Guide CAS DataBase

(3) Corporate Solution From Thomson Micromedex(<http://csi.micromedex.com>)

(4) ECB-ESIS(European chemical Substances Information System)(<http://ecb.jrc.it/esis>)

(5) ECOTOX Database, EPA(<http://cfpub.epa.gov/ecotox>)

(6) IUCLID Chemical Data Sheet, EC-ECB

(7) International Chemical Safety Cards(ICSC)(<http://www.nihs.go.jp/ICSC>)

(8) TOXNET, U.S. National Library of Medicine(<http://toxnet.nlm.nih.gov>)

(9) The Chemical Database, The Department of Chemistry at the University of Akron
(<http://ull.chemistry.uakron.edu/erd>)

(10) Korea Information System for Chemical Safety, KISChem (<http://kischem.nier.go.kr>)

(11) Chemical information system (<http://ncis.nier.go.kr>)

(12) Grease Raw material manufacturer's information : PSDS(PRODUCT SAFETY DATA SHEET) Data

2) The first creation date : Mar 27, 2025

3) The number of times, and the final revision date : Revision times 00

The final revision date : Mar 27, 2025

Further information

Pulsarlube has prepared copyrighted Product Safety Datasheets to provide information on the different Pulsarlube automatic grease lubricator systems. As defined in above the text Pulsarlube automatic grease lubricator are manufactured articles, which do not result in exposure to a hazardous chemical under normal conditions of use. The information and recommendations set forth herein are made in good faith, for information only, and are believed to be accurate as of the date of preparation. However, Pulsarlube, Inc. MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THIS INFORMATION AND DISCLAIMS ALL LIABILITY FROM REFERENCE ON