

Safety Data Sheet

according to Regulation (EU) 2020/878



SIOGEL®; SIOGEL®, white; SIOGEL®, beige

Date of issue: 22.11.2016

Revision date: 20.08.2026

Version/Replaced version: 6.0/5.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
Product name : SIOGEL®; SIOGEL®, white; SIOGEL®, beige
Substance name : Silicon dioxide
EC no : 231-545-4
CAS no : 7631-86-9
Registration no : 01-2119379499-16-0083

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Industrial use. Professional use.
Use of the substance/mixture : Manufacture of textiles, paper, pulp, chemical products, rubber products, plastic products, electronic components, optical components
Agent for water treatment
Mixing, impregnation, filling, spraying
Personal care, home care
Biocide substances, colouring agents, dyes, fillers, lubricants, pH-regulating agents, tanning agents, fuel

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Oker-Chemie GmbH
Im Schleeke 77
38642 Goslar
Tel.: +49 (0)5321 74351 10

Safety Data Sheet: DLAC Dienstleistungsagentur Chemie GmbH, E-mail: sds@dlac-gmbh.de

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number
Germany	Giftinformationszentrum (GIZ-Nord) Zentrum Pharmakologie und Toxikologie der Universität Göttingen	Robert-Koch Straße 40 37075 Göttingen	+49 551 19240 (German, English)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, the product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to Regulation (EC) No. 1272/2008 [CLP] labelling is not required

2.3. Other hazards

Does not contain substance(s) classified as PBT or vPvB in concentrations above 0.1 %. The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance name : Silicon dioxide
EC no : 231-545-4
CAS no : 7631-86-9

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Silicon dioxide	(CAS no) 7631-86-9 (EC no) 231-545-4 (Registration no) 01-2119379499-16-0083	≥ 93	Not classified

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Get medical advice/attention if you feel unwell. If possible show him this sheet. Failing this, show him the packaging or label. Never give anything by mouth to an unconscious person. Place the affected person in the recovery position.
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- First-aid measures after ingestion : Rinse mouth. Drink water as a precaution.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Adapt extinguishing agents to the environment. Carbon dioxide. Dry extinguishing powder. Water spray. For a significant fire: Alcohol resistant foam.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : The product itself does not burn.

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Provide adequate ventilation. Do not breathe dust. Avoid dust formation.
- 6.1.1. For non-emergency personnel**
Emergency procedures : Evacuate the danger area.
- 6.1.2. For emergency responders**
Protective equipment : Use personal protective equipment as required. In case of inadequate ventilation wear respiratory protection. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : On land, sweep or shovel into suitable containers. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Dispose of in accordance with relevant local regulations.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Avoid dust formation. Do not breathe dust. Wear personal protective equipment.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in original container. Keep container tightly closed. Store in a dry, cool and well-ventilated place. Keep out of direct sunlight. Keep container closed when not in use.
- Prohibitions on mixed storage : Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Silicon dioxide (7631-86-9)		
Ireland	Local name	Silica, amorphous
Ireland	OEL (8 hours ref) (mg/m ³)	6 mg/m ³ (total inhalable dust) 2.4 mg/m ³ (respirable dust)
United Kingdom	Local name	Silica, amorphous
United Kingdom	WEL TWA (mg/m ³)	6 mg/m ³ (inhalable dust) 2.4 mg/m ³ (respirable dust)

8.2. Exposure controls

- Appropriate engineering controls : Provide local exhaust or general room ventilation to minimize exposure to dust.
- Hand protection : Not required. In case needed, wear suitable gloves (EN 374). Nitrile rubber. 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. In case needed, wear safety glasses (EN 166 / EN ISO 16321).
- Skin and body protection : Not required. In case needed, wear suitable protective clothing.
- Respiratory protection : No respiratory protection needed under normal use conditions. If the occupational exposure limit is exceeded or dust production: dust mask with filter type P1.
- Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Solid, granules/beads
- Colour : White/beige
- Odour : Odourless
- Melting point/freezing point : > 1700 °C
- Boiling point or initial boiling point and boiling range : No data available
- Flammability : No data available
- Lower and upper explosion limit : Not applicable
- Flash point : Not applicable
- Auto-ignition temperature : Not applicable
- Decomposition temperature : No data available
- pH : 3.5 - 8.0 (50 g/L H₂O at 20 °C)
- Kinematic viscosity : Not applicable
- Solubility : Water: insoluble
- Partition coefficient n-octanol/water (log value) : Not applicable
- Vapour pressure : No data available
- Density and/or relative density : No data available
- Relative vapour density : Not applicable

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Particle characteristics : No data available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosive properties : Not explosive

Oxidising properties : No oxidising properties

9.2.2. Other safety characteristics

Bulk density : 350 - 780 kg/m³

Burning number : 1

Flammability (contact with water) : Not flammable

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3. Possibility of hazardous reactions

None under normal use.

10.4. Conditions to avoid

No conditions to avoid known.

10.5. Incompatible materials

No incompatible materials known.

10.6. Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity : Not classified

Based on available data, the classification criteria are not met.

LD50 oral rat: > 3 100 mg/kg (OECD 401)

LD50 dermal rabbit: > 5 000 mg/kg

LC0 inhalation rat: 0.14 mg/L, 4 h (OECD 403)

Skin corrosion/irritation : Not classified

Based on available data, the classification criteria are not met.

Rabbit, result: no skin irritation, 4 h (OECD 404)

Serious eye damage/irritation : Not classified

Based on available data, the classification criteria are not met.

Rabbit, result: mild eye irritation, 4 h (OECD 405)

Respiratory or skin sensitisation : Not classified

Based on available data, the classification criteria are not met.

Patch test on human volunteers did not demonstrate sensitisation properties.

Germ cell mutagenicity : Not classified

Based on available data, the classification criteria are not met.

Ames test - Test species: Salmonella typhimurium, E. coli with and without metabolic activation, result: negative (OECD 471)

Chromosome aberration test in vitro - Test species: Chinese hamster ovary (CHO) cells with and without metabolic activation, result: negative (OECD 473)

In vitro tests did not show mutagenic effects.

Carcinogenicity : Not classified

Based on available data, the classification criteria are not met.

Reproductive toxicity : Not classified

Based on available data, the classification criteria are not met.

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- Specific target organ toxicity (single exposure) : Not classified
Based on available data, the classification criteria are not met.
- Specific target organ toxicity (repeated exposure) : Not classified
Based on available data, the classification criteria are not met.
NOAEL oral rat: $\geq 4\,000$ mg/kg, 90 days (OECD 408)
- Aspiration hazard : Not classified
Based on available data, the classification criteria are not met.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

- Adverse health effects caused by endocrine disrupting properties : The substance has no endocrine disrupting properties.

11.2.2. Other information

- Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

- Ecology - general : This product contains no hazardous components for the aquatic environment.
- Acute aquatic toxicity : Not classified
Toxicity fish LL0 (Danio rerio): 10 000 mg/L, 96 h, Read across (OECD 203)
Toxicity daphnia EL0 (Daphnia magna): 1 000 mg/L, 24 h, Read across (OECD 202)
Toxicity algae EL50 (Scenedesmus subspicatus): $> 10\,000$ mg/L, 72 h, Read across (Testsubstanz: Aluminiumnatriumsilikat) (OECD 201)
- Chronic aquatic toxicity : Not classified

12.2. Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

- BCF : 3.16 L/kg wet-wt
- BAF : 1.09 L/kg wet-wt

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

This product does not meet the PBT- or vPvB criteria of REACH regulation, annex XIII.

12.6. Endocrine disrupting properties

- Adverse effects on the environment caused by endocrine disrupting properties : The substance has no endocrine disrupting properties.

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Regional legislation (waste) : Dispose in a safe manner in accordance with local/national regulations.
- Waste treatment methods : Do not empty into drains.
- Waste code : The waste code number according to the Ordinance on the European Waste Catalogue depends on the waste producer and can therefore vary for any given product. The waste code number is therefore to be gleaned separately from each waste producer.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

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14.1. UN number or ID number

UN-No. (ADR) : Not applicable
UN-No. (IMDG) : Not applicable
UN-No. (IATA) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Not applicable

- Transport by sea

Not applicable

- Air transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Authorisation List (Annex XIV)

Contains no substance(s) listed on REACH Annex XIV (list of substances subject to authorisation).

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List for Authorisation (substances of very high concern).

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation (EU) 649/2012 concerning the export and import of hazardous chemicals).

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation (EU) 2019/1021 on persistent organic pollutants).

Ozone Regulation

Contains no substance(s) listed on the Ozone Depletion list (Regulation (EU) 2024/590 on substances that deplete the ozone layer).

Explosives Precursors Regulation

Contains no substance(s) listed on the Explosives Precursors list (Regulation (EU) 2019/1148 on the marketing and use of explosives precursors).

Drug Precursors Regulation

Contains no substance(s) listed on the Drug Precursors list (Regulation (EC) 273/2004 on drug precursors).

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15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

Chemical safety assessments for this substance were carried out.

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Changes compared to earlier Versions : Section 1.1.
Section 8.2.
Section 9.1.
Section 11.2.
Section 12.6.
Section 15.1.

Silicon dioxide (7631-86-9)

Listed on: EINECS/REACH (Europe)
Listed on: TSCA (Toxic Substances Control Act Inventory) (USA)
Listed on: DSL (Domestic Substances List) (Canada)
Listed on: AICS (Australian Inventory of Chemical Substances)
Listed on: IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on: ENCS (Existing and New Chemical Substances) (Japan, MITI-Inventory)
Listed on: KECL (Korean Existing Chemicals List)
Listed on: PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on: TCSI (Taiwan's chemical substance inventory)

Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
BAF	Bioaccumulation factor
BCF	Bioconcentration factor
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LL0	Lethal Load for 0 %
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	Safety data sheet
vPvB	Very Persistent and Very Bioaccumulative

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.