

# Silica gel

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878  
Issue date: 08.03.2021 Version: 1.0

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

#### 1.1. Product identifier

Product form : Substance  
Trade name : Silica gel  
Chemical name : Silicon dioxide  
EC-No. : 231-545-4  
CAS-No. : 7631-86-9  
REACH registration No : 01-2119379499-16-0326

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

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Desiccant

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Traiva s.r.o.  
Pohranicni 29111/13b  
70300, Ostrava - Czech Republic  
T +420 596 123 556, +420 604 266 813  
[info@traiva.cz](mailto:info@traiva.cz) - [www.traiva.cz](http://www.traiva.cz)

#### 1.4. Emergency telephone number

| Country        | Official advisory body   | Address                                  | Emergency number   | Comment |
|----------------|--|--|--|---------|
| Ireland        | National Poisons Information Centre<br>Beaumont Hospital   | PO Box 1297<br>Beaumont Road<br>9 Dublin | +353 1 809 2566<br>(Healthcare professionals-<br>24/7)<br>+353 1 809 2166 (public,<br>8am - 10pm, 7/7) |         |
| United Kingdom | National Poisons Information Service<br>(Birmingham Centre)<br>City Hospital                     | Dudley Road<br>B18 7QH Birmingham        | 0344 892 0111  |         |
| United Kingdom | Guy's & St Thomas' Poisons Unit<br>Medical Toxicology Unit, Guy's & St<br>Thomas' Hospital Trust | Avonley Road<br>SE14 5ER London          | +44 20 7188 7188   |         |

### 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**

No additional information available

#### 2.2. Label elements

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

No labelling applicable

#### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII  
PBT: not relevant - inorganic substance

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This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII  
vPvB: not relevant - inorganic substance

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

| Name            | Product identifier   | %    | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|-----------------|--|------|---|
| Silicon dioxide | CAS-No.: 7631-86-9<br>EC-No.: 231-545-4<br>REACH-no: 01-2119379499-16-0326 | > 99 | Not classified  |

#### 3.2. Mixtures

Not applicable

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

|                                       |   |
|---------------------------------------|---|
| First-aid measures general            | : If you feel unwell, seek medical advice (show the label where possible).  |
| First-aid measures after inhalation   | : Remove person to fresh air and keep them warm and calm. If you feel unwell, seek medical advice.                    |
| First-aid measures after skin contact | : Not irritating to skin. Gently wash with plenty of soap and water.  |
| First-aid measures after eye contact  | : Rinse immediately with plenty of water (for at least 15 minutes). If eye irritation persists, consult a specialist. |
| First-aid measures after ingestion    | : Rinse mouth.  |

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

|                                    |  |
|------------------------------------|--|
| Symptoms/effects after eye contact | : May cause slight irritation. redness, itching, tears. Some eye irritation is also possible following exposure to the dust. |
|------------------------------------|--|

#### 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   | : Carbon dioxide. Dry powder. Water spray.<br>For large fire: Alcohol resistant foam. |
| Unsuitable extinguishing media | : Use extinguishing media appropriate for surrounding fire.                           |

#### 5.2. Special hazards arising from the substance or mixture

|             |                  |
|-------------|------------------|
| Fire hazard | : Non flammable. |
|-------------|------------------|

#### 5.3. Advice for firefighters

|                           |   |
|---------------------------|---|
| Firefighting instructions | : During the fire of the product, keep the safe distance, use suitable breathing protection (isolation device), or self-contained breathing apparatus. Prevent fire fighting water from entering the environment. |
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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures : Wear recommended personal protective equipment.  
Measures in case of dust release : Avoid dust production. Avoid dust to spread. Ensure adequate ventilation.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment.

#### 6.2. Environmental precautions

No additional information available

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Avoid dust formation. Clear up rapidly by scoop or vacuum. Collect all waste in suitable and labelled containers and dispose according to local legislation.

#### 6.4. Reference to other sections

See Section 8 and 13 of this safety data sheet.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid dust formation. Do not breathe dust. Use personal protective equipment as required.  
Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. 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

Technical measures : Comply with applicable regulations.  
Storage conditions : Store in dry, cool, well-ventilated area. Store in original container. Keep container closed when not in use.

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1. National occupational exposure and biological limit values

No additional information available

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

No additional information available

##### 8.1.5. Control banding

No additional information available

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### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

**Appropriate engineering controls:**

Handle in accordance with good industrial hygiene and safety practice. Provide adequate general and local exhaust ventilation.

#### 8.2.2. Personal protection equipment

##### 8.2.2.1. Eye and face protection

**Eye protection:**

Safety glasses with side shields

##### 8.2.2.2. Skin protection

**Skin and body protection:**

Wear suitable protective clothing

**Hand protection:**

Protective gloves. Consult glove manufacturer's product information on material suitability and material thickness.

##### 8.2.2.3. Respiratory protection

**Respiratory protection:**

In case of inadequate ventilation wear respiratory protection.

##### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

No additional information available

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|   |                            |
|---|----------------------------|
| Physical state                                  | : Solid                    |
| Colour  | : White to off-white.      |
| Appearance                                      | : Powder.                  |
| Odour   | : Not available            |
| Odour threshold                                 | : Not available            |
| Melting point                                   | : Not available            |
| Freezing point                                  | : Not available            |
| Boiling point                                   | : Not available            |
| Flammability                                    | : Not available            |
| Explosion limits                                | : Not applicable           |
| Lower explosive limit (LEL)                     | : Not applicable           |
| Upper explosive limit (UEL)                     | : Not applicable           |
| Flash point                                     | : Not applicable           |
| Auto-ignition temperature                       | : Not applicable           |
| Decomposition temperature                       | : Not available            |
| pH  | : 6 – 8 (20 °C, 5% slurry) |
| pH solution                                     | : Not available            |
| Viscosity, kinematic                            | : Not applicable           |
| Solubility                                      | : Insoluble in water.      |
| Partition coefficient n-octanol/water (Log Kow) | : Not available            |
| Vapour pressure                                 | : Not available            |
| Vapour pressure at 50 °C                        | : Not available            |
| Density   | : Not available            |
| Relative density                                | : Not available            |
| Relative vapour density at 20 °C                | : Not applicable           |
| Particle size                                   | : Not available            |
| Particle size distribution                      | : Not available            |
| Particle shape                                  | : Not available            |
| Particle aspect ratio                           | : Not available            |
| Particle aggregation state                      | : Not available            |

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Particle agglomeration state : Not available  
Particle specific surface area : Not available  
Particle dustiness : Not available

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

Bulk density : 400 – 560 kg/m<sup>3</sup>

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions of use.

### 10.3. Possibility of hazardous reactions

Hydrogen fluoride.

### 10.4. Conditions to avoid

Not established. No hazardous decomposition products known.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

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

Acute toxicity (oral) : Based on available data, the classification criteria are not met.  
Acute toxicity (dermal) : Based on available data, the classification criteria are not met.  
Acute toxicity (inhalation) : Based on available data, the classification criteria are not met.

| Silica gel (7631-86-9)            |                         |
|-----------------------------------|-------------------------|
| LD50 oral rat                     | 10000 mg/kg             |
| LD50 dermal rabbit                | > 5000 mg/kg (OECD 402) |
| LC50 Inhalation - Rat (Dust/Mist) | > 0,139 mg/l/4h         |

Skin corrosion/irritation : Based on available data, the classification criteria are not met.  
pH: 6 – 8 (20 °C, 5% slurry)  
Serious eye damage/irritation : Based on available data, the classification criteria are not met.  
pH: 6 – 8 (20 °C, 5% slurry)  
Respiratory or skin sensitisation : Based on available data, the classification criteria are not met.  
Germ cell mutagenicity : Based on available data, the classification criteria are not met.  
Carcinogenicity : Based on available data, the classification criteria are not met.  
Reproductive toxicity : Based on available data, the classification criteria are not met.  
STOT-single exposure : Based on available data, the classification criteria are not met.  
STOT-repeated exposure : Based on available data, the classification criteria are not met.  
Aspiration hazard : Based on available data, the classification criteria are not met.

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### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : 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

#### 11.2.2. Other information

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Based on available data, the classification criteria are not met.

Hazardous to the aquatic environment, long-term (chronic) : Based on available data, the classification criteria are not met.

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|                      |  |
|----------------------|--|
| LC50 - Fish [1]      | > 10000 mg/l (Brachydanio rerio, OECD 202) |
| EC50 - Crustacea [1] | > 1000 mg/l (Daphnia magna, OECD 202)      |

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

#### Silica gel (7631-86-9)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

PBT: not relevant - inorganic substance

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

vPvB: not relevant - inorganic substance

### 12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : 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

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Dispose in a safe manner in accordance with local/national regulations.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

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### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

| ADR                                     | IMDG           | IATA           | ADN            | RID            |
|---|----------------|----------------|----------------|----------------|
| <b>14.1. UN number or ID number</b>     |                |                |                |                |
| Not applicable                          | Not applicable | Not applicable | Not applicable | Not applicable |
| <b>14.2. UN proper shipping name</b>    |                |                |                |                |
| Not applicable                          | Not applicable | Not applicable | Not applicable | Not applicable |
| <b>14.3. Transport hazard class(es)</b> |                |                |                |                |
| Not applicable                          | Not applicable | Not applicable | Not applicable | Not applicable |
| <b>14.4. Packing group</b>              |                |                |                |                |
| Not applicable                          | Not applicable | Not applicable | Not applicable | Not applicable |
| <b>14.5. Environmental hazards</b>      |                |                |                |                |
| Not applicable                          | Not applicable | Not applicable | Not applicable | Not applicable |
| No supplementary information available  |                |                |                |                |

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

#### Inland waterway transport

Not applicable

#### Rail 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

No REACH Annex XVII restrictions

Silica gel is not on the REACH Candidate List

Silica gel is not on the REACH Annex XIV List

Silica gel is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Silica gel is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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 (CLP)

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### 15.1.2. National regulations

No data available

### 15.2. Chemical safety assessment

A chemical safety assessment has been carried out

## SECTION 16: Other information

| Abbreviations and acronyms |   |
|----------------------------|---|
| CAS-No.                    | Chemical Abstract Service number  |
| ADN                        | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways   |
| ADR                        | European Agreement concerning the International Carriage of Dangerous Goods by Road               |
| ATE                        | Acute Toxicity Estimate   |
| CLP                        | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008                       |
| DNEL                       | Derived-No Effect Level   |
| EC50                       | Median effective concentration  |
| EC-No.                     | European Community number   |
| ED                         | Endocrine disrupting properties   |
| EN                         | European Standard   |
| IATA                       | International Air Transport Association   |
| IMDG                       | International Maritime Dangerous Goods  |
| LC50                       | Median lethal concentration   |
| LD50                       | Median lethal dose  |
| NOAEL                      | No-Observed Adverse Effect Level  |
| OECD                       | Organisation for Economic Co-operation and Development  |
| OEL                        | Occupational Exposure Limit   |
| PBT                        | Persistent Bioaccumulative Toxic  |
| PNEC                       | Predicted No-Effect Concentration   |
| REACH                      | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| RID                        | Regulations concerning the International Carriage of Dangerous Goods by Rail                      |
| vPvB                       | Very Persistent and Very Bioaccumulative  |

|                   |   |
|-------------------|---|
| Data sources      | : ECHA guidance on the compilation of safety data sheets<br>ECHA C&L Inventory database. Supplier's safety documents.   |
| Training advice   | : Normal use of this product shall imply use in accordance with the instructions on the packaging.  |
| Other information | : 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. |

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.