

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

#### 1.1. Product identifier

Product form : Substance : Silica Gel :  
Trade name 231-545-4 : 7631-86-9 :  
EC No. 01-2119379499-16-XXXX  
CAS-No.  
REACH registration No

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

##### 1.2.1. Relevant identified uses

Main use category Use of the substance/mixture Function or use category : Industrial use  
: Industrial uses: Uses of substances as such or in preparations\* at industrial sites  
: Absorbents and adsorbents, Intermediates

##### 1.2.2. Uses advised against

Restrictions on use : Anything other than the above

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

R-Tech Solutions  
Unit 1  
Pinner Parc  
Whitland  
SA34 0RA  
United Kingdom  
Telephone: 01994 240500  
E-mail: sales@desiccants.co.uk

#### 1.4. Emergency telephone number

Emergency number : 019940240500

### 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  
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII  
Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Substance type	: Mono-constituent :
Name	Silicon dioxide :
CAS-No.	7631-86-9 :
EC No.	231-545-4

#### 3.2. Mixtures

Not applicable

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If symptoms develop, obtain medical attention.
First-aid measures after skin contact	: If skin irritation occurs: Get medical advice/attention. Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms develop, obtain medical attention.
First-aid measures after ingestion	: If symptoms develop, obtain medical attention. Rinse mouth out with water. Drink plenty of water.

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

Symptoms/effects	: No information available.
Symptoms/effects after inhalation	: Dust from this product may cause respiratory irritation.
Symptoms/effects after skin contact	: Repeated and/or prolonged skin contact may cause irritation.
Symptoms/effects after eye contact	: Dust from this product may cause eye irritation.

#### 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	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: Do not use a water jet since it may cause the fire to spread.

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

Fire hazard	: None known. Not flammable.
Hazardous decomposition products in case of fire	: None known.

#### 5.3. Advice for firefighters

Firefighting instructions	: Move containers from fire area if you can do it without risk. Cool closed containers exposed to fire with water spray. Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses.
Protection during firefighting	: As in any fire, wear self-contained breathing apparatus and full protective gear.

### SECTION 6: Accidental release measures

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

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

Protective equipment : Use personal protective equipment as required.  
 Emergency procedures : Ventilate area. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing and gloves.  
 Emergency procedures : Ventilate area. Avoid dust formation. Avoid contact with skin and eyes. Wear independent breathing equipment.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if large amounts of the product enters sewers or public waters.

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

For containment : Keep in suitable, closed containers for disposal.  
 Methods for cleaning up : Minimise generation of dust. Sweep or shovel spills into appropriate container for disposal.

#### 6.4. Reference to other sections

SECTION 8: Exposure controls/personal protection. SECTION 13: Disposal considerations.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Additional hazards when processed : Provide adequate ventilation, including appropriate local extraction, to ensure that occupational exposure limits are not exceeded.  
 Precautions for safe handling : Avoid breathing dust. Avoid contact with eyes, skin and clothing. : 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 water before eating, drinking or smoking and when leaving work. Take off contaminated clothing and wash it before reuse.  
 Hygiene measures

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool well ventilated place. Keep container closed when not in use.

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

Industrial uses: Uses of substances as such or in preparations\* at industrial sites.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

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

##### Exposure limit values for the other components

Dust		
Ireland - Occupational Exposure Limits		
Local name	Dusts non-specific	
OEL (8 hours ref) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> total inhalable 4 mg/m <sup>3</sup> respirable	
Regulatory reference	Chemical Agents Code of Practice 2021	

Dust		
<b>United Kingdom - Occupational Exposure Limits</b>		
Local name	Dust	
WEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> inhalable dust 4 mg/m <sup>3</sup> Respirable dust	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	

### 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

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls:

Provide adequate ventilation, including appropriate local extraction, to ensure that occupational exposure limits are not exceeded. Provide adequate ventilation to minimise dust concentrations.

### 8.2.2. Personal protection equipment

Avoid all unnecessary exposure.

#### 8.2.2.1. Eye protection:

In case of dust production: protective goggles

#### 8.2.2.2. Skin and body

##### protection:

Long-sleeved protective clothing

**Hand protection:** Wear chemically resistant protective gloves according to EN 374-1. The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed. Gloves should be removed and replaced if there are any signs of degradation or breakthrough. Due to the practical application of the product, it is advised to apply gloves according to EN 388 and EN 374-1.

#### 8.2.2.3. Respiratory protection:

Dust mask or respirator. Standard EN 149 – Respiratory protective devices

#### 8.2.2.4. Thermal hazard protection:

Not required for normal conditions of use.

### 8.2.3. Environmental exposure controls:

Avoid release to the environment.

## 9.1. Information on basic physical and chemical properties

### SECTION 9: Physical and chemical properties

Physical state : Solid

# Silica Gel

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according to Regulation (EC) No. 1907/2006 (REACH), as retained and amended in UK law

Colour	
Odour	: Transparent. :
Odour threshold	Odourless. : No data available :
pH	4
Relative evaporation rate (butylacetate=1)	@20°C : No data available :
Melting point	> 1700 °C :
Freezing point	No data available :
Boiling point	> 999 °C :
Flash point	No data available :
Auto-ignition temperature	No data available :
Decomposition temperature	No data available :
Flammability (solid, gas)	Not flammable :
Vapour pressure	No data available :
Relative vapour density at 20°C	No data available :
Relative density	No data available :
Density	2.1 g/cm <sup>3</sup>
Solubility	: Water: 0.166 g/l :
Log Pow	No data available :
Viscosity, kinematic	No data available :
Viscosity, dynamic	No data available :
Explosive properties	: No data available :
Oxidising properties	: No data available :
Explosive limits	: No data available :
Particle shape	: Spherical

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under recommended handling and storage conditions (see section 7).

### 10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

Dust formation.

### 10.5. Incompatible materials

None known.

### 10.6. Hazardous decomposition products

None known.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Skin corrosion/irritation	: Not classified
	pH: 4 @20°C

Additional information	: Based on available data, the classification criteria are not met :
Respiratory or skin sensitisation	Not classified
Additional information	pH: 4 @20°C
Germ cell mutagenicity	: Based on available data, the classification criteria are not met
Additional information	: Not classified
Carcinogenicity	: Based on available data, the classification criteria are not met
Additional information	: Not classified
Reproductive toxicity	: Based on available data, the classification criteria are not met
Additional information	: Not classified
STOT-single exposure	: Based on available data, the classification criteria are not met
Additional information	: Not classified
STOT-repeated exposure	: Based on available data, the classification criteria are not met
Additional information	: Not classified
Aspiration hazard	: Based on available data, the classification criteria are not met
Additional information	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Additional information	: Not classified
Additional information	: Based on available data, the classification criteria are not met

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

Silica Gel (7631-86-9)	
LC50 fish	> 5000 mg/l - 96 Hours (Pimephales promelas)
EC50 72h - Algae [1]	173.1 - 72 Hours (Desmodesmus subspicatus)
NOEC chronic fish	86.03 mg/l - 30 days (QSAR)
NOEC chronic crustacea	149.2 mg/l - 21 days (Daphnia magna)

### 12.2. Persistence and degradability

Silica Gel (7631-86-9)	
Persistence and degradability	Not relevant for inorganic substances.

### 12.3. Bioaccumulative potential

Silica Gel (7631-86-9)	
Bioaccumulative potential	No data available.

### 12.4. Mobility in soil

Silica Gel (7631-86-9)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.337

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

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Dispose in a safe manner in accordance with local/national regulations.
Waste disposal recommendations	: Empty containers should be taken to an approved waste handling site for recycling or disposal. The correct waste code must be determined by the producer of the waste, based on how the waste has been produced.
Additional information	: Handle empty containers with care.
European List of Waste (LoW) code	: 06 03 16 - metallic oxides other than those mentioned in 06 03 15

## SECTION 14: Transport information

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

### 14.1 UN number

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

### 14.2. UN proper shipping name

Proper Shipping Name	: Not applicable :
Proper Shipping Name (IMDG)	Not applicable :
Proper Shipping Name (IATA)	Not applicable :
Proper Shipping Name (ADN)	Not applicable :
Proper Shipping Name (RID)	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

**ADN**  
Transport hazard class(es) (ADN) : Not applicable

**RID**  
Transport hazard class(es) (RID) : Not applicable

### 14.4. Packing group

Packing group	: Not applicable :
Packing group (IMDG)	Not applicable :
Packing group (IATA)	Not applicable :
Packing group (ADN)	Not applicable :
Packing group (RID)	Not applicable

### 14.5. Environmental hazards

Dangerous for the environment : No

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according to Regulation (EC) No. 1907/2006 (REACH), as retained and amended in UK law

Marine pollutant

Other information

: No

: 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. Transport in bulk according to Annex II of Marpol and the IBC Code

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 Annex XVII (Restriction List)

Not listed on REACH Annex XVII

##### REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

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.

##### POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

##### Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

##### Explosives Precursors Regulation (2019/1148)

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 (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

**SECTION 16: Other information****Abbreviations and acronyms:**

ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route)
CAS	(Chemical Abstracts Service) number
CLP	(Classification, Labeling and Packaging)
DNEL	(Derived No Effect Level)
EC	(European Community)
EC50	(Effective Concentration 50%)
EN	(European Norm)
IARC	(International Agency for Research on Cancer)
IATA	(International Air Transport Association)
IBC	(Intermediate Bulk Container)
IMDG	(International Maritime Dangerous Goods Code)
Koc	(Soil adsorption coefficient)
LC50	(Lethal Concentration 50%)
OECD	(Organisation for Economic Co-operation and Development)
OEL	(Occupational exposure limit)
PBT	(Persistent, Bioaccumulative and Toxic)
PNEC	(Predicted No Effect Concentration)
REACH	(Registration, Evaluation and Authorisation of Chemicals)
STEL	(Short Term Exposure Limit)
UNxxxx	(Number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods)
vPvB	(very Persistent and very Bioaccumulative)

## 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. Where 'Regulation (EC) No. 1272/2008' appears in the safety data sheet, this is a reference to Regulation (EC) No. 1272/2008, as retained and amended in UK law.

## 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.