

# Safety Data Sheet

according to Regulations REACH 1907/2006/EC

REF: 815380.5	Silica gel 60 0,04-0,063 mm, 5 kg	Page: 1/8
Printing date: 15.05.2024	Date of issue: 18.07.2022	Version: 2.2.2.2

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

### 1.1 Product identifier

REF 815380.5  
 Product name Silica gel 60 0,04-0,063 mm, 5 kg

REACH Registration number(s): see SECTION 3.1/3.2 or  
 A registration number for the substance(s) does not exist because the annual tonnage does not require registration or the substance or its use is excluded from registration.  
 1 x 5 kg Silica gel

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

**Relevant identified uses**  
 a. Product for analytical use.  
 Exposure Scenario Classification according REACH, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC 0  
 The exposure scenario is integrated into sections 1-16.  
 b. Product used as cleaning and filtration aid. Codes: SU 3, 9, 23, PC 2, 20, 29, 37, PROC 3, 5, ERC 4, 8a, 8b  
 This exposure scenario is also integrated into sections 1-16.

**Uses advised against**  
 not described

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

**Manufactured by:**  
 MACHEREY-NAGEL GmbH & Co. KG  
 Valenciennes Str. 11, 52355 Düren, Germany  
 Phone: +49 2421 969 0 E-mail: sds@mn-net.com (msds@mn-net.com)

### 1.4 Emergency telephone number

Information not necessary.  
 You find our current versions of SDS in Internet: <<http://www.mn-net.com/SDS>>

## SECTION 2: Hazard identification

### 2.0 Classification of the complete product according to Regulation (EC) 1272/2008

<u>Hazard identification</u>	<u>Hazard classes/categories</u>

### 2.1 Classification of the substance or mixture according to Regulation (EC) 1272/2008

5 kg Silica gel

Do not need labelling as hazardous

Signal word -

No hazard class

List of H phrases: see section 16.2

### 2.2 Label elements according regulation (EC) 1272/2008

5 kg Silica gel  
 Do not need labelling as hazardous  
 Signal word: -

#### Label elements of the complete product



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Signal word: -

## 2.3 Other hazards

### Possible hazards from physicochemical properties

According to our current status of knowledge and experience we state, that this product does not contain any substances, which - in accordance with EC regulations 1272/2008/EC, 1907/2006/EC and German Regulations for Hazardous goods - have to be declared as dangerous goods, either because of their applied concentration or because of their total amount in anyone kit. An individual package has considerably less hazardous potential.

### Information pertaining to particular risks to human and possible symptoms

Avoid inhalation of dust.

### Information pertaining to particular risks to the environment

PBT: not applicable

vPvB: not applicable

### Possible endocrine disrupting effects

no data available

### Other hazards

It is not possible to declare fine dust (< 12 µm) as dangerous or not. We recommend not to inhale product dust. Dust may cause damage of the inhalatory system if inhaled over a longer period.

## SECTION 3: Composition / information on ingredients

### 3.1 Substances or 3.2 Mixtures

#### 5 kg Silica gel

Substance name: *silica*  
CAS No.: 7631-86-9

Substance rating: No criteria for classification or naming of chemical not required.  
Formula: SiO<sub>2</sub>  
Pseudonym (de): Silicagel, Siliziumdioxid  
REACH Reg. No.: 01-2119379499-16-0166  
EC No.: 231-545-4  
Concentration: 95 - <100 %  
acc. CLP (GHS): The criteria for classification are not fulfilled.

### 3.3 Remarks

When not listed, mixtures are added with water [CAS No. 7732-18-5] to 100%. List of H and P phrases: see section 16.2.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately.

#### 4.1.1 After SKIN Contact

Remove dust with wetted tissue.

#### 4.1.2 After EYE Contact

Rub dust with teardrops from eyes

#### 4.1.3 After INHALATION of vapours

After inhalation of dust fresh air should be inhaled. ---

#### 4.1.4 After ORAL Intake

no data available

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

There are no known delayed symptoms or effects for this product.

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

No additionally recommendations. ---



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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### 5.1.1 Suitable extinguishing media

Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used. Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.

#### 5.1.2 Unsuitable extinguishing media

no data available

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

None.

### 5.3 Advice for firefighters

No, for listed product. Product package burns like paper or plastic.

### 5.4 Additional information

no data available

## SECTION 6: Accidental release measures

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

Avoid dusting. Do not breathe dust. .

### 6.2 Environmental precautions

PBT: not applicable  
vPvB: not applicable

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

Remove remaining dust with a vacuum cleaner. If there is no vacuum cleaner, wet dust well and remove mechanical (Inhalation protection). Clean working area with water. Flush used water into drains.

### 6.4 Reference to other sections

no data available

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid dusting.

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

Safe storage is guaranteed in the original packaging from MACHEREY-NAGEL. Storage class (German chemical industry): see chapter 12.1

Storage class (VCI): 13  
Water hazard class (DE): nwg

#### 7.2.1 Requirements for stock rooms and containers

Keep original product packages tightly closed during handling and storage.

### 7.3 Specific end use(s)

- a. Product for analytical use.
- b. Product used as cleaning and filtration aid.

## SECTION 8: Exposure controls /personal protection

### 8.1 Control parameters

#### 5 kg Silica gel

Chemical: *silica*

CAS No.: 7631-86-9

DNEL: [inh] 4 mg/m<sup>3</sup>  
DNEL = Derived No-Effect Level (for workers)

PNEC (fresh water): -  
PNEC = Predicted No Effect Concentration

TRGS 900 (DE): 1,25 A / 4 E mg/m<sup>3</sup>  
A/a aveoles passing, E/e respirable, G total

Short-term exposure factor: Y



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skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 4 e mg/m<sup>3</sup>  
 NIOSH: Occupational Carcinogen List yes; [TWA] 6 mg/m<sup>3</sup>  
 [TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period  
 OSHA: [TWA] 20 mppcf / 80 mg/m<sup>3</sup>

## 8.2 Exposure controls

Not necessary.

### 8.2.1 Respiratory protection

Not necessary. Use for dusty working a dust mask or a dust protection filter, class P1. Use for regularly working with dry powders a dust mask or a dust protection filter, class P3.

### 8.2.2 Skin protection / Hand protection

Not necessary, recommended for often use.

### 8.2.3 Eye / Face Protection

Not necessary.

### 8.2.4 Skin protection

Not necessary.

### 8.2.5 Personal hygiene

Information not necessary.

### 8.2.6 Thermal hazards

no data available

## 8.3 Limitation and monitoring of environmental exposure

Information not necessary.

# SECTION 9: Physical and chemical properties

## 9.1 Information on basic physical and chemical properties

### 5 kg Silica gel

a) State of aggregation:	powder (solid)
b) Colour:	white
c) Odor:	odorless
d) Melting point:	no data available
e) Boiling point:	1600 °C
f) Flammability:	no data available
g) Explosive limits (lower / upper):	no data available
h) Flash point:	no data available
i) Flashing temperature:	no data available
j) Decomposition temperature:	no data available
k) pH value:	5-9
l) Kinematic viscosity:	no data available
m) Solubility in water:	<< 1 %
n) Dispersion coefficient (K <sub>o/w</sub> ):	no data available
o) Vapour pressure (20°C):	no data available
p) Specific gravity:	no data available
q) Relative vapour density (air=1):	no data available
r) Particle size:	25-40 / >40 ... µm

## 9.2 Other information

### 9.2.1 Information on physical hazard classes

no data available

### 9.2.2 Other safety-related parameters

No data is available for the other parameters for the mixtures, since no registration and no chemical safety report is required.

no data available



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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None

### 10.2 Chemical stability

no known instability.

### 10.3 Possibility of hazardous reactions

None.

### 10.4 Conditions to avoid

Not known. None.

### 10.5 Incompatible materials

Not known.

### 10.6 Hazardous decomposition products

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

## SECTION 11: Toxicological information

### 11.1 Information on the hazard classes according regulation (EC) 1272/2008

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

#### 5 kg Silica gel

Chemical:	<i>silica</i>	CAS No.:	7631-86-9
TSCA Inventory:	listed	California Proposition 65 List:	not listed
Exposure Routes:	inhalation, skin and/or eye contact		
Target Organs:	Eyes, respiratory system		
Symptoms:	irritation eyes, pneumoconiosis		
Australia NICNAS:	not listed	Canada CEPA 1999:	DSL yes
Japan CSCL/PRTR:	not listed, Japan PDSC:	not listed	
Japan ISHL:	listed $\geq 0,1\%$ / $\geq 0,1\%$ , Article 57-2 (SDS required)		
South Korea TCCA:	not listed		
Korea Exist.Chem.Inventory:	KE-31032		
LD50 orl rat :	5000 mg/kg		
LC50 ihl rat :	2,19-5,01 mg/L/4H		
Avoid inhalation of dust.			
TRGS 905 (DE):	R F C		

### 11.2 Other hazards

#### Possible endocrine disrupting effects

no data available

#### Other information

no additional data available

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 5 kg Silica gel

Substance name:	<i>silica</i>	CAS-Nr.:	7631-86-9
PNEC (fresh water) :	-		
PNEC = Predicted No Effect Concentration =	concentration at which no effect on the environment is expected		
LC50 fish/96h :	[4d] 1033-1289 mg/L		
EC50 daphnia/48h :	512; [4d] 2600 mg/L		
EC50 chlorella vulgaris/5d :	[4d] 218 mg/L		
Water hazard class (DE):	nwg	WGK No.:	0849
Storage class (VCI):	13		

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## 12.2 Persistence and degradability

## 12.3 Bioaccumulative potential

## 12.4 Mobility in soil

## 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 12.6 Endocrine disrupting properties

no data available

## 12.7 Other adverse effects

no additional data available

## SECTION 13: Disposal considerations

Not necessary.

### 13.1 Waste treatment methods

GENERAL: Empty solids into municipal waste, empty liquids diluted into drains.

## SECTION 14: Transport information

14.1 - 14.4 Not necessary

### 14.5 Environmental hazards

none

### 14.6 Special precautions for user

not necessary

### 14.7 Carriage in bulk by sea in accordance with IMO instruments

Not applicable.

## SECTION 15: Regulatory information

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

Dangerous Substances Protection Act (DE: Chemikaliengesetz - ChemG), Aug 2013, Stand: Okt 2020

Ordinance on protection against dangerous substances (E: Gefahrstoffverordnung - GefStoffV), Nov 2010, Stand: Mrz 2017

If necessary, observe other country-specific regulations.

### 15.2 Chemical safety assessment

no data available

## SECTION 16: Other information

### 16.1 Changes compared to the last version

in preparation

### 16.2 List of H and P phrases

#### 16.2.1 List of relevant H phrases

H in preparation

#### 16.2.2 List of relevant P phrases

### 16.3 Recommended restriction on use

None

### 16.4 Sources of key data



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KÜHN, BIRETT, Leaflets on hazardous materials, 2021  
 Directive 97/69/EG, mineral fibers  
 Directive 1999/92/EG Minimum requirements to improve the safety and health protection of workers at risk from potentially explosive atmospheres  
 TRGS 521, German engineering regulations for rehabilitation, repair and demolition with old mineral wool, February 2008, TRGS 521 "Mineral fibres" in the new version SUVA .CH, limit values in the air at work 2009, revised on 01/2009  
 Regulation 790/2009/EU, adaptation of Regulation 1272/2008/EU to technical and scientific progress (1st ATP)  
 Regulation 453/2010/EU, adaptation of the REACH regulation 1907/2006/EG  
 TRGS 559, German technical rules for mineral dusts from July 2011  
 Regulation 487/2013/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (4th ATP)  
 Regulation 1221/2015/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (7th ATP)  
 Regulation 776/2017/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (10th ATP)

Regulation 669/2018/EU, adaptation of Regulation 1272/2008/EC to technical and scientific progress Text (11th ATP)  
 Regulation 1480/2018/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (13th ATP)  
 Regulation 521/2019/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (12th ATP)  
 TRGS 900, German rules of technology on limit values in the air at work, as of 03/2019  
 Regulation 217/2020/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (14th ATP)  
 Regulation 878/2020/EU, adaptation of Annex II of the REACH regulation 1907/2006/EG  
 Regulation 1182/2020/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (15th ATP)  
 Regulation 643/2021/EU, adaptation of Annex VI, Part 1, of Regulation 1272/2008/EC to technical and scientific progress (16th ATP)  
 Regulation 849/2021/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (17th ATP)  
 Regulation 692/2022/EU, adaptation of Annex VI, Part 1, of Regulation 1272/2008/EC to technical and scientific progress (18th ATP)

**revisions/updates**

*Reason for revision:* 2014-02 Corrected structure of the sections according to Regulation 453/2010/EU, if necessary  
 2014-04 adjustment according Regulation 487/2013/EU  
 2016-03 adjustment according Regulation 1221/2015/EU

2017-11 adjustment according the ECHA registration dossier  
 2022-11 adjustment according Regulation 878/2020/EU

**16.5 Further information**

MACHEREY-NAGEL GmbH & Co. KG provides the information contained herein in good faith being up-to-date of own realizations at revision time. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose.  
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**16.6 Legend / Abbreviations**

- acc: according
- ADR: Convention concerning the International Carriage of Dangerous Goods by Road
- Act: acute
- BAT: biological workplace tolerance value
- CAO: Cargo Aircraft Only
- Carc: carcinogen
- CAS: Chemical Abstracts Service
- CLP: Classification, Labelling and Packaging regulation
- CMR: carcinogen, mutagen, reproduction toxic
- Corr: corrosive
- COD: chemical oxygen demand
- CSCL: Chemical Substance Control Law (Jp)
- Dam: damage
- DNEL: Derived No-Effect Level (for workers)
- derm: dermal
- dog: dog
- EC10: Concentration causing a toxic effect in 10% of the test organisms
- EC: European Community
- EC-Nr: Substance number of the EC substance inventory
- EmS: Guide to accident management measures on ships
- EU: European Union
- fish: fish (not specified)
- GHS: Global Harmonized System of Classification and Labeling of Chemicals
- gpg: guinea pig
- ICAO: International Civil Aviation Organization
- ihl: inhaled
- IMDG: International Maritime Dangerous Goods Code



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intrav: intravenous  
 ipt: intraperitoneal  
 ISHL: Industrial Safety and Health Law (Jp)  
 LC50: letale concentration 50%  
 LD50: letale dosis 50%  
 leuciscus idus: fisch, ide, orfe  
 MAK: maximum workplace concentration  
 Met: Metall  
 mus: mouse  
 Muta: mutagen  
 NIOSH: National Institute for Occupational Safety and Health (US)  
 NRD: Non-rapidly degradable  
 onchorhynchus mykiss: fisch, rainbow trout  
 orl: oral  
 OSHA: Occupational Safety and Health Administration  
 PAX: transport on passenger planes allowed  
 PBT: persistent, bioaccumulating, toxic substance  
 pH: pH value  
 pimephales promelas: fisch, fathead minnow  
 PNEC: Predicted No Effect Concentration  
 PROC 15: Process category 'for laboratory use'  
 PRTR: Law for PRTR and Promotion of Chemical Management (Jp)  
 PVC: polyvinyl chloride  
 quail: bird, quail  
 rat: rat  
 rbt: rabbit  
 RD: rapidly degradable  
 RE: repeated  
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals  
 REF: item number, reference number  
 Reg.No.: rRegistration number  
 Repr: harmful to reproduction  
 Resp: respiratory  
 RIP: REACH Implementations Projects  
 scu: sub cutan  
 SDS: safety data sheet  
 Sens: sensitisation  
 STEL: short term exposure limit  
 STOT: Specific Target Organ Toxicity  
 SVHC: Substance of Very High Concern  
 t/a: tons per year  
 TCCA: Toxic Chemicals Control Act (S. Korea)  
 Tox: toxic  
 TSCA: The Toxic Substances Control Act (US)  
 TWA: time weighted average  
 TRGS: technical regulations (DE)  
 vPvB: very persistent, very bioaccumulating substance

## 16.7 Training advice

Regular safety training. Multiple safety training of staffs about danger and protection by using hazards in working area. Additionally training and introduction of staffs for using these products.

