

Shanghai Aladdin Biochemical Technology Co., Ltd.  
No. 809, Chuhua Branch Road, Fengxian District, Shanghai

# SAFETY DATA SHEET

Version: v1  
Revision Date: 2024-01-16  
Print Date: 2024-01-23

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

### 1.1 Product identifiers

Product name : Silicon powder  
Product Number : S130844  
Brand : aladdin  
CAS-No. : 7440-21-3(powder)

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

Identified uses : Laboratory chemicals, Manufacture of substances.

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

Company : Shanghai Aladdin Biochemical Tech Co.,Ltd  
Address : 36 Xinjinqiao Road, Shanghai  
Telephone : 400-620-6333  
Fax : no data available

### 1.4 Emergency telephone number

Emergency Phone : 0532-83889090

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)  
Flammable solid (category 2), H228

Acute toxicity, oral (category 5), H303

Serious eye damage/eye irritation (category 2B), H320

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

H228 Flammable solid  
H303 May be harmful if swallowed  
H320 Causes eye irritation

Precautionary statement(s)

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P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting/...] equipment.
P264	Wash hands [and ...] thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P312	Call a POISON CENTER or doctor/... if you feel unwell.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P337+P313	IF eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use ... to extinguish.

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms	: Silicon; elemental silicon; polyeristalline silicon powder; silicium
Formula	: Si
Molecular weight	: 28.09
CAS No.	: 7440-21-3(powder)
EC-NO.	: 231-130-8

Component	Classification	Concentration
Silicon powder	Flammable solid category 2; acute toxicity category No 5; serious eye damage/eye irritation Sex category 2B; H228, H303, H320	nanopowder,99.9% metals basis,100-200nm

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

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After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

no data available

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### **SECTION 5: Firefighting measures**

#### **5.1 Extinguishing media**

Suitable extinguishing media

Use water mist, alcohol-resistant foam, dry powder or carbon dioxide to extinguish the fire.

Unsuitable extinguishing media

For this substance/mixture, there are no restrictions on extinguishing agents.

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

Silica

#### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

#### **5.4 Further information**

Use water spray to cool unopened containers.

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### **SECTION 6: Accidental release measures**

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

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

#### **6.2 Environmental precautions**

Do not let product enter drains.

#### **6.3 Methods and materials for containment and cleaning up**

Sweep and shovel away. Contain the spill, collect the spill with an anti-electric vacuum cleaner or a wet brush, and place it in a container, and dispose of it according to local regulations (see section 13). Place in a suitable closed container for disposal. Contain the overflow, put it away with an electric-proof vacuum cleaner or a wet brush, then put it in a container, and dispose of it in accordance with local regulations (see section 13).

#### **6.4 Reference to other sections**

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Keep away from open flames, hot surfaces and ignition sources. Take measures to prevent electrostatic discharge. Change contaminated clothing. Wash hands after using this substance. For precautions, see section 2.2.

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

Close tightly. Keep away from heat and fire. If the time is too long, the pressure will gradually increase and cause the container to burst. Sensitive to humidity, Under Inert Atmosphere

### 7.3 Specific end use(s)

no data available

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

### 8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Body Protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as

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NIOSH (US) or CEN (EU).

Control of environmental exposure

If safety requires, prevent further leakage or spillage. Do not let the product enter the sewer.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	form: powder color: yellow to brown
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	1410°C
f) Initial boiling point and boiling range	2355°C
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	2.33
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

### 9.2 Other safety information

no data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

no data available

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#### 10.4 Conditions to avoid

no data available

#### 10.5 Incompatible materials

Strong oxidizer, alkaline carbonate, calcium, cobalt difluoride, magnesium trifluoride

#### 10.6 Hazardous decomposition products

no data available

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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Acute toxicity

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

Eyes-rabbit Result: Mild eye irritation-24 h (Draize Test) Remarks: (RTECS)

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

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### SECTION 12: Ecological information

#### 12.1 Toxicity

#### 12.2 Persistence and degradability

The biodegradation test method is not applicable to inorganic substances.

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### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

no data available

### 12.6 Other adverse effects

no data available

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## SECTION 13:

### 13.1 Disposal considerations

Product

recycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur. Observe all federal, state and local regulations when disposing of the substance.

Contaminated packaging

Dispose of as unused product.

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## SECTION 14: Transport information

DOT (US)

UN number: 1346

Packing group: III

Class: 4.1

Proper shipping name: Silicon powder, amorphous

Reportable Quantity(RQ): no data available

Poison Inhalation Hazard: no data available

Environmental Hazards: No

IMDG

UN number: 1346

Packing group: III

EMS-No: no data available

Proper shipping name: Silicon powder, amorphous

IATA

UN number: 1346

Packing group: III

Class: 4.1

Proper shipping name: Silicon powder, amorphous

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## SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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## SECTION 16: Other information

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#### Further information

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