

# MATERIAL SAFETY DATA SHEET

## 1. Product and company identification

- a. **Product Name** Micro Sized, Spherical Silica Powder Coated with Dimethicone.  
SILNOS 290D
- b. **Recommended use of the chemical And restrictions on use**
- Relevant identified uses Cosmetics
- Uses advised against No data available
- c. **Manufacturer/Supplier/Distributor Information**
- Name ABC NANOTECH CO., LTD.
- Address 551 Yongsan-Dong, Yuseong-Gu, Daejeon City 305-500, KOREA
- Emergency phone number +82-42-936-9001
- Department Quality Control Team

## 2. Hazards identification

- a. **Hazard-Risk Classification** Not Classified
- b. **Label elements including precautionary statements**
- Symbol Not applicable
- Signal Word Not applicable
- Hazard-Risk Statement Not applicable
- Precautionary Statement Avoid breathing dust/fume/gas/mist/vapours/spray  
Use only outdoors or in a well-ventilated area.
- Response Wear protective gloves/protective clothing/eye protection protection.  
Remove to fresh air. Take a rest by comfortable position  
Get medical advice/attention if you feel unwell.
- Storage Store in a well-ventilated place. Keep container tightly closed
- Disposal Dispose of contents/container in accordance with local/ regional/  
national/ international regulations.
- c. **Other Hazard-Risk which are not included in the classification criteria (e.g. dust explosion hazard)**
- Health 1
- Flammability 0
- Reactivity 0

## 3. Composition/Information on ingredients

Chemical Name	Common names and synonyms	CAS number	Classification	Content(%)
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Silicon Dioxide	Synthetic Amorphous Silica	7631-86-9	Not classified.	Not classified.	90 ~ 97
Dimethicone	Dimethyl silicone oil	9006-65-9	Not classified.	Not classified.	3 ~ 10

#### 4. First aid measures

- a. **Eye contact**  
Immediately flush lightly with plenty of water for at least 20 minutes.  
If symptoms develop, seek medical attention
- b. **Skin contact**  
Wash skin for personal hygienic reasons. If symptoms develop, seek medical attention
- c. **Inhalation**  
Remove to fresh air. If not breathing, give artificial respiration.  
If breathing is difficult, give oxygen. If symptoms develop, seek medical attention..
- d. **Ingestion**  
Do not induce vomiting. If conscious, rinse mouth with water.  
If symptoms develop, seek medical attention..
- e. **Indication of immediate medical attention and notes for physician**  
Treat symptomatically for lung or eye irritation, if present.

#### 5. Fire-Fighting measures

- a. **Suitable (and unsuitable) extinguishing media**  
Use alcohol foam, carbon dioxide, water spray, sand for extinction
- b. **Specific hazards arising from the chemical**  
(e.g. nature of any hazardous combustion products)
  - Pyrolysate**  
Crystal form Silica
  - Fire or Explosion**  
Silica is an inorganic dust and will not create nor support conditions that would result in a dust explosion or fire.
- c. **Special protective equipment and precautions for fire-fighters**  
 Wear proper protective equipment..  
 Fight fire with normal precautions from a reasonable distance.  
 Dig a ditch for slaking water to be disposed and prevent the loss of the substances..  
 Stop leak if safe to do so  
 Extinguish the fire from a distance or use an unmanned fire extinguisher when fires on a tank occurs..  
 Cool the container down with much water after putting out the fire on a tank..  
 Step back immediately if the pressure relief device makes high pitched

sound or tank discolors after the fire.

Step back from the tank engulfed in flames after the fire on the tank.

If possible, use an unmanned fire extinguisher when large scale fire occurs, and if not, just let it burn.

## 6. Accidental release measures

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

Do not breathe dust/fume/gas/mist/vapours/spray..

Wear goggles if release creates conditions where eye contact is probable.

Ventilate area if necessary

If user operations generate dust, then an approved respirator for dust/mists is recommended..

### b. Environmental precautions and protective procedures

Prevent inflow of it into waterway, drain, basement or enclosed space.

### c. Methods and materials for containment and cleaning up

Spills may be collected, preferably by vacuum, and placed in suitable container for disposal

## 7. Handling and storage

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### a. Precautions for safe handling

Do not eat, drink or smoke when using this product.

Do not breathe dust/fume/gas/mist/vapours/spray.

Contaminated work clothing should not be allowed out of the workplace.

Follow the precaution for MSDS/label because there can be residues from the product after emptying out the container.

Handle/store it with care.

Drew the cork out with care.

Prevent prolonged or continuous contact with skin.

Note the substances and conditions to avoid.

Note the manual for engineered safeguard and personal protective equipment when working.

### b. Conditions for safe storage (including any incompatibilities).

Store at the storage with locking device.

Product should be stored dry and away from volatile chemicals.

Avoid a place high-temperature and humidity and direct rays, should stored at airtight storage.

Store in cool and dry area with suitable ventilation.

Storage temperature: room temperature (25 degrees storage)

## 8. Exposure controls & personal protection

### a. Control parameters (e.g. occupational exposure limit values, biological limit values)

OSHA	PEL – 6 mg/m <sup>3</sup>
ACGIH	TLV – 10 mg/m <sup>3</sup>
Korea Limit	TWA - 10mg/m <sup>3</sup>

\* for silicon dioxide which includes all forms of silicas (e.g. also crystalline and natural forms)

**b. Appropriate engineering controls** If user operations generate dust, fume, or mist, use ventilation to minimize dust levels.

### c. Personal protective equipment

An approved air-purifying respirator (APR) for particulates may be appropriate to control exposure to dust .

Protection provided by air-purifying respirators is limited.

Use a positive-pressure, air supplied respirator if there is any potential for uncontrolled release, exposure levels are not known, or any circumstances where air-purifying respirators may not provide adequate protection.

Use of respirators must include a complete respiratory protection program in accordance with national standards and current best practices.

The following agencies/organizations approve respirators and/or criteria for respirator programs.

US	NIOSH Approval under 42 CFR 84 Required OSHA (29 CFR 1910.134)
EU	CR592 Guidelines for the Selection and Use of Respiratory Protection. Germany: DIN/EN 143 Respiratory Protective Devices for Dusty Materials.
UK	BS 4275 Recommendations for the Selection. Use and Maintenance of Respiratory Protective Equipment. HSE Guidance Note HS(G)53 Respiratory Protective Equipment.

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beyond the potential and the technology...

## 9. Physical and chemical properties

### a. Appearance (physical state, color etc)

Appearance	Soild(powder)
Color	Fine white

### b. Odour

None

### c. Odour threshold

None

### d. pH

5~9 (approximately 10% silica in the distilled water)

### e. Meting point/freezing point

> 1600 °C

### f. Initial boiling point and boiling range

> 149 °C (Estimates)

### g. Flashing point

> 135 °C (Estimates)

### h. Evaporation rate

None

### i. Flammability (solid, gas)

None

### j. Upper/lower flammability or explosive limits

- / -

### k. Vapor pressure

None

### l. Solubility

None

### m. Vapor density

None

n. Specific gravity	0.25-1.0
o. Partition coefficient: n-octanol/water	7.69 (Estimates)
p. Auto-ignition temperature	None
q. Decomposition temperature	None
r. Viscosity	None
s. Formula mass	593.16 (Estimates)

## 10. Stability and reactivity

### a. Chemical stability and possibility of hazardous reactions

High temperatures can cause toxic gas through evaporation.

Explosion risk in case of fire.

It is not very flammable; however, it can become partially burnt..

Nonflammability: it is not very flammable, but it can cause corrosive/toxic fumes when heating up..

### b. Conditions to avoid (e.g. static discharge, shock or vibration, etc):

Heat, sparks, flames etc. sources of ignition

### c. Incompatible materials

Combustible materials, Reducing substances

### d. Hazardous decomposition products

Causticity/Toxic fume

Irritation, Causticity, Toxic gases

## 11. Toxicological information

### a. Information on the likely routes of

#### Exposure

May cause respiratory irritation.

### b. Health hazards information

#### Acute toxic(Silicon Dioxide)

##### Oral

LD50 3,300 mg/kg

※ SIDS

##### Skin

LD50 5,000 mg/kg

※ SIDS

##### Inhalation

Dust LC50> 2.0 mg/l

※ SIDS

#### Skin corrosive/irritant

Silicon Dioxide

No irritation (Experimental phase)

※ SIDS

DIMETHICONE

No irritation

#### Serious eye damage/eye irritation

Silicon Dioxide

No irritation (Experimental phase)

※ SIDS

#### Respiratory sensitization

None

#### Skin sensitization

None

#### Carcinogenicity

##### IARC

Group 3 Silica, amorphous

##### NTP

None

##### OSHA

None

##### EU CLP

None

##### ACGIH

None

#### Germ Cell Mutagenicity

Silicon Dioxide	Experiment result , No mutagenic    ※ SIDS
DIMETHICONE	AMES   SALMONELLA   TYPHIMURIUM   RA98, TA100, TA1535, TA1538 : Negative
<b>Reproductive toxicity</b>	None
<b>Specific target organ toxicity (single exposure)</b>	None
<b>Specific target organ toxicity (repeated exposure)</b>	None
<b>Aspiration hazard</b>	None

## 12. Ecological information

### a. Aquatic and terrestrial ecotoxicity(Silicon Dioxide)

<b>Fish</b>	LC50 5000 mg/l 96 hr
<b>Shellfish</b>	LC50 7600 mg/l 48 hr
<b>Birds</b>	EC50 440 mg/l 72 hr

### b. Persistence and degradability

#### Persistence

Silicon Dioxide	log Kow 0.53
DIMETHICONE	log Kow 7.69(Estimates)

#### Degradability

None

### c. Bioaccumulative potential

#### condenasability

Silicon Dioxide	BCF 3.162
DIMETHICONE	BCF 6108 (Estimates)

#### Biodegradable

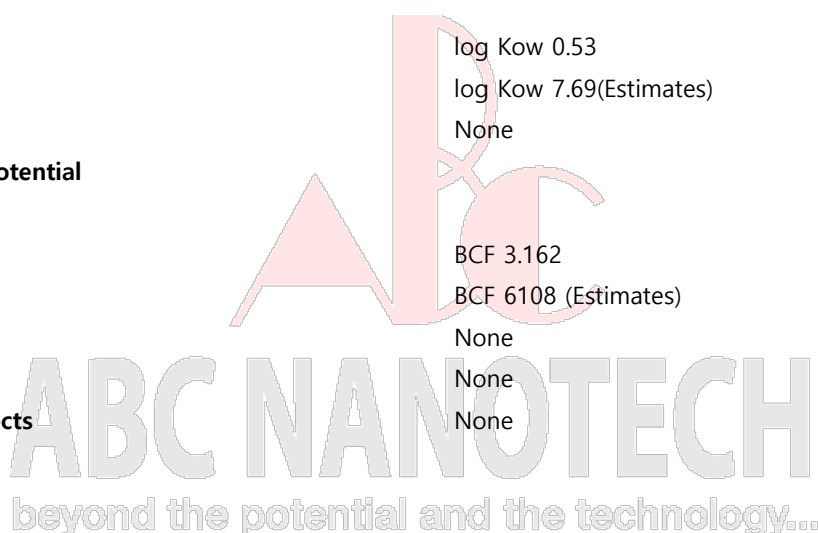
None

### d. Mobility in soil

None

### e. Other adverse effects

None



## 13. Disposal considerations

- a. **Disposal method** (According to the related laws) dispose the container and contents.
- b. **Disposal precaution (including the disposal method of contaminated container and packaging)**  
(According to the related laws) dispose the container and contents.

## 14. Transport information

- a. **UN Number** Not applicable
- b. **UN proper shipping name** Not applicable
- c. **Transport hazard class** Not applicable
- d. **Packing group (if applicable)** Not applicable
- e. **Marin pollution (yes/no)** None
- f. **Special precaution which a user to be aware of or needs to comply with in connection with transport or conveyance either within or outside their premises**
- Emergency measures in case of fire** Not applicable

Emergency measures in case of outflow	Not applicable
g. Shipping Name (CFR):	Non-hazardous
h. Hazard Class (CFR):	Not applicable
i. Additional Hazard Class (CFR):	Not applicable
j. Packaging Group (CFR):	Not applicable
k. UN ID Number (CFR):	Not applicable
l. Shipping Name (IATA):	Non-hazardous
m. Hazard Class (IATA):	Not applicable
n. Additional Hazard Class (IATA):	Not applicable
o. Packaging Group (IATA):	Not applicable
p. UN ID Number (IATA):	Not applicable

## 15. Regulatory information

### a. Korea regulation

Industrial Safety and Health Act	Material with exposure standard setting
Toxic Chemical Control Act	Not applicable
Dangerous Material Safety Control Act	Not applicable
Wastes Management Act	Designated waste
POPs Control act	Not applicable

### b. International regulation

US Administration Information (OSHA regulation)	Not applicable
US Administration Information (CERCLA regulation)	Not applicable
US Administration Information (EPCRA 302 regulation)	Not applicable
US Administration Information (EPCRA 304 regulation)	Not applicable
US Administration Information (EPCRA 313 regulation)	Not applicable
US Administration Information (Rotterdam agreement substance)	Not applicable
US Administration Information (Stockholm agreement substance)	Not applicable
US Administration Information (Montreal Protocol substance)	Not applicable
EU classification information (Confilm classification result)	Not applicable
EU classification information (danger word)	Not applicable
EU classification information (safety word)	Not applicable

## 16. Other information

### a. Information source and references

Silicon Dioxide	SIDS, TOMES; HAZARDTEXT(Oral)
	SIDS, IUCLID ( Skin)
	SIDS, IUCLID ( Inhalation)
	SIDS, IUCLID (Skin corrosion or Irritation )
	SIDS, (Skin Sensitization)
	IUCLID(Fish)

디메티콘(DIMETHICONE)

IUCLID(Shellfish)  
IUCLID(Birds)  
Korea Occupational Safety Health Agency,  
KE No.: KE-31032/KE-32733  
ChemIDPlus  
HSDB(Skin corrosion or Irritation)  
CCRIS(Korea Occupational Safety Health Agency,)  
EPISUITE

b. Issuing date	2002-10-01
c. Revision number	7.2
d. Last revision date	2018-01-28
e. others	None

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