



Safety Data Sheet

Skyspring Nanomaterials, Inc. www.ssnano.com

Revision Date: 02/22/2024

1 Identification of substance:

- **Product details:**
- **Trade name:** Silicon/Carbon nanoparticles
- **Product numbers:** 9730NG
- **Manufacturer/Supplier:**

SkySpring Nanomaterials, Inc.
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2 Hazards identification

Emergency Overview

GHS Classification Combustible dust

GHS Label elements, including precautionary statements

Pictogram None

Signal word Warning

Hazard statement(s)

Precautionary statement(s) May for combustible dust concentrations in air.

3 Composition/Data on components:

- **Chemical characterization:**

Description:

(CAS#)

Silicon (CAS# 7440-21-3), ~50%

Carbon (CAS# 7780-42-5), ~50%

- **Identification number(s):**
- **EINECS Number:** Silicon 231-130-8, Carbon 231-955-3

4 First aid measures

- **After inhalation**
Supply fresh air. If required, provide artificial

respiration. Keep patient warm.
Seek immediate medical advice.

- **After skin contact**
Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.
- **After eye contact**
Rinse opened eye for several minutes under running water.
Then consult a doctor.
- **After swallowing** Seek immediate medical advice.

5 Fire fighting measures

- **Suitable extinguishing agents** Extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents**
Water
Carbon dioxide
- **Protective equipment:**
Wear self-contained respirator.
Wear fully protective impervious suit.

6 Accidental release measures

- **Person-related safety precautions:**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources
- **Measures for environmental protection:**
Do not allow material to be released to the environment without proper governmental permits.
- **Measures for cleaning/collecting:**
Ensure adequate ventilation.
Keep away from ignition sources.
- **Additional information:**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Information for safe handling:**
Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.
Ensure good ventilation at the workplace.

- **Information about protection against explosions and fires:**
Keep ignition sources away.
Protect against electrostatic charges.
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
- **Information about storage in one common storage facility:**
Store away from oxidizing agents.
Store away from halogens.
Store away from water/moisture.
Do not store together with acids.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:**
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with limit values that require monitoring at the workplace:

Silicon

mg/m³

ACGIH TLV	10
Belgium TWA	10
Denmark TWA	10
France TWA	10
Ireland TWA	5 (respirable); 10 (inhalable)
Netherlands TWA	10
Switzerland TWA	4
United Kingdom TWA	4 (respirable dust); 10 (total inhalable dust)
USA PEL	5 (respirable fraction); 15 (total dust)

- **Additional information:** No data
- **Personal protective equipment**

General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Breathing equipment:

Use suitable respirator when high concentrations are present.

Protection of hands: Impervious gloves

Eye protection: Safety glasses

Body protection: Protective work clothing.

9 Physical and chemical properties:

- **Form:** Powder
- **Color:** black gray
- **Odor:** no data available

	<u>Value/Range</u>	<u>Unit</u>	<u>Method</u>
•			
• Change in condition			
• Melting point/Melting range:	no data available		
• Boiling point/Boiling range:	no data available		
• Sublimation temperature / start:	Not determined		
• Flash point:	Not applicable		
• Flammability (solid, gaseous)	Highly flammable.		
• Ignition temperature:	Not determined		
• Decomposition temperature:	Not determined		
• Explosion limits:			
• Lower:	Not determined		
• Upper:	Not determined		
• Vapor pressure:	Not determined		
• Density:	no data available		
• Solubility in / Miscibility with			
• Water:	Insoluble		

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
Decomposition will not occur if used and stored according to specifications.
- **Materials to be avoided:**
Oxidizing agents
Acids
Bases
Interhalogens
Halogens
Water/moisture
Alkali metals
- **Dangerous reactions** Reacts violently with oxidizing agents
- **Dangerous products of decomposition:** Metal oxide fume

11 Toxicological information

- **Acute toxicity:**
no data available
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Subacute to chronic toxicity:**
Elementary silicon is an inert material that seems to have little adverse effect on lungs and does not appear to produce significant organic disease or toxic effects when exposures are kept under reasonable control.
- **Additional toxicological information:**
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information:

- **General notes:**
Do not allow material to be released to the environment without proper governmental permits.

13 Disposal considerations

- **Product:**
- **Recommendation**
Consult state, local or national regulations for proper

disposal.

- **Uncleaned packagings:**
- **Recommendation:**
Disposal must be made according to official regulations.

14 Transport information

- **DOT (US):** Not dangerous goods
- **IMDG:** Not dangerous goods
- **IATA:** Not dangerous goods

15 Regulations

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that

exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

- **Chemical safety assessment stance.** For this product a chemical safety assessment was not carried out.

16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.