

# SAFETY DATA SHEET: SiO<sub>x</sub>/Cy Composite Silicon based Anode Powder

Version: 2.2

Revision Date: 4/3/2020

## Section 1: Identification

### 1.1) Product identifier:

Product Name : Silicon composite material

Synonyms :

Product Number : PO0197

CAS Number :

### 1.2) Company information:

Address: MSE Supplies, LLC  
4400 E Broadway Blvd, Suite 600  
Tucson, AZ 85711, USA

Telephone: +1 520-789-6673

Email: [info@mse Supplies.com](mailto:info@mse Supplies.com)

Emergency Telephone : +1-703-527-3887

### 1.3) Relevant identified uses of the substance or mixture and uses advised against:

Identifies uses: Laboratory chemicals, Synthesis of substances

## Section 2: Hazard(s) Identification

### 2.1) Classification of the substance or mixture GHS classification in accordance with 29 CFR 1910 (OSHA HCS):

Not a hazardous substance or mixture.

### 2.2) GHS Label elements, including precautionary statements:

Not a hazardous substance or mixture.

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

None

## Section 3: Composition/Information on Ingredients

### 3.1) Substances : SiO<sub>x</sub>Cy

# SAFETY DATA SHEET: SiO<sub>x</sub>/Cy Composite Silicon based Anode Powder

**Version: 2.2**

**Revision Date: 4/3/2020**

Component	Classification	Concentration
Silicon Monoxide (SiO) CAS # 10097-28-6 Molecular weight – 44.08 g/mol		>= 5 - <= 20 wt %
Carbon (C) CAS # 7440-44-6 Molecular weight – 12.01g/mol		>= 80 - <= 95 wt %

Composition comments: The exact percentage is withheld as a trade secret in accordance with 29 CFR 1910.1200.

## Section 4: First-Aid Measures

### 4.1) Description of first aid measures:

#### General advice

Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

#### In case of skin contact

Wash off with soap and plenty of water.

#### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

### 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

# SAFETY DATA SHEET: SiO<sub>x</sub>/Cy Composite Silicon based Anode Powder

Version: 2.2

Revision Date: 4/3/2020

## Section 5: Fire-Fighting Measures

### 5.1) Suitable extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

Silicon oxides, Carbon Oxides

### 5.3) Advise for firefighters:

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4) Further information:

No data available.

## Section 6: Accidental Release Measures

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

Avoid dust formation. Avoid breathing vapors, mist or gas.

For personal protection see section 8.

### 6.2) Environmental precautions:

No special environmental precautions required.

### 6.3) Methods and materials for containment and cleaning up:

Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 6.4) Reference to other sections:

For disposal see section 13.

## Section 7: Handling and Storage

### 7.1) Precautions for safe handling:

# SAFETY DATA SHEET: SiO<sub>x</sub>/Cy Composite Silicon based Anode Powder

**Version: 2.2**

**Revision Date: 4/3/2020**

Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

## **7.2) Co Keep container tightly closed in a dry and well-ventilated place.**

Keep in a dry place.

Storage class (TRGS 510): 13: Non Combustible Solids nditions for safe storage, including any incompatibilities:

## **7.3) Specific end use(s):**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## Section 8: Exposure Controls/Personal Protection

### **8.1) Control parameters:**

#### **Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

### **8.2) Exposure controls:**

#### **Appropriate engineering controls:**

General industrial hygiene practice.

#### **Personal protective equipment**

##### **Eye/face protection:**

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

# SAFETY DATA SHEET: SiO<sub>x</sub>/Cy Composite Silicon based Anode Powder

**Version: 2.2**

**Revision Date: 4/3/2020**

accordance with applicable laws and good laboratory practices. Wash and dry hands.

## Body protection:

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## Respiratory protection:

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## Control of environmental exposure:

No special environmental precautions required.

## Section 9: Physical and Chemical Properties

### 9.2) Information on basic physical and chemical properties:

a) Appearance (physical state, color, etc.)	Black powder
b) Upper/lower flammability or explosive limits	No data available
c) Odor	No data available
d) Odor threshold	No data available
e) Vapor pressure	< 0.01mbar @ 20 °C
f) Vapor density	No data available
g) pH	No data available
h) Density	2.08~2.30g/cm <sup>3</sup> @ 25 °C
i) Melting point/freezing point	appr. >1702°C
j) Solubility(ies)	No data available

# SAFETY DATA SHEET: SiO<sub>x</sub>/Cy Composite Silicon based Anode Powder

**Version: 2.2**

**Revision Date: 4/3/2020**

k) Initial boiling point and boiling range	No data available
l) Flash point	No data available
m) Evaporation rate	No data available
n) Flammability (solid, gas)	No data available
o) Partition coefficient: n-octanol/water	No data available
q) Auto-ignition temperature	> 550~ 740°C
r) Decomposition temperature	No data available
s) Viscosity	No data available
t) Explosive properties	No data available
u) Oxidizing properties	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

### 10.4) Conditions to avoid:

No data available

### 10.5) Incompatible materials:

Strong oxidizing agents

# SAFETY DATA SHEET: SiO<sub>x</sub>/Cy Composite Silicon based Anode Powder

Version: 2.2

Revision Date: 4/3/2020

## 10.6) Hazardous decomposition products:

Hazardous decomposition products formed under fire conditions. - silicon oxides, carbon oxides

Other decomposition products - No data available

In the event of a fire: see section 5.

## Section 11: Toxicological Information

### 11.1) Information on toxicological effects:

#### Acute toxicity:

No data available  
Inhalation: No data available  
Dermal: No data available  
No data available

#### Skin corrosion/irritation:

No data available

#### Serious eye damage/ eye irritation:

No data available

#### Respiratory or skin sensitization:

No data available

#### Germ cell mutagenicity:

No data available

#### Carcinogenicity:

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

# SAFETY DATA SHEET: SiO<sub>x</sub>/Cy Composite Silicon based Anode Powder

**Version: 2.2**

**Revision Date: 4/3/2020**

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**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:**

RTECS: Not available

Shortness of breath, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## Section 12: Ecological Information

**12.1) Toxicity:**

No data available

**12.2) Persistence and degradability:**

No data available

**12.3) Bioaccumulative potential:**

No data available

**12.4) Mobility in soil:**

No data available

**12.5) Results of PBT and vPvB assessment:**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted



## SAFETY DATA SHEET: SiO<sub>x</sub>/Cy Composite Silicon based Anode Powder

**Version: 2.2**

**Revision Date: 4/3/2020**

### 12.6) Other adverse effects:

No data available

## Section 13: Disposal Considerations

### 13.1) Waste treatment methods:

**Product:**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging:**

Dispose of as unused product.

## Section 14: Transport Information

**DOT (US):**

Not dangerous goods

**IMDG:**

Not dangerous goods

**IATA:**

Not dangerous goods

## Section 15: Regulatory Information

**SARA 302 Components:**

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



# SAFETY DATA SHEET: SiO<sub>x</sub>/Cy Composite Silicon based Anode Powder

Version: 2.2

Revision Date: 4/3/2020

### 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

### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

### Pennsylvania Right To Know Components

Silicon Monoxide	CAS-No.	Revision Date
	10097-28-6	

### New Jersey Right To Know Components

Silicon Monoxide	CAS-No.	Revision Date
	10097-28-6	

### California Prop. 65 Components:

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## Section 16: Other Information

### Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. MSE Supplies LLC and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

Version: 2.2

Revision Date: 4/3/2020