

# MATERIAL SAFETY DATA SHEET

Revision Date: April 15, 2009

Revision No: 9

Valid until April 2012

## SECTION 1 - Chemical Product and Company Identification

VESTA Si Europe AB  
Industriomr. 3  
SE-840 10 LJUNGAVERK  
SWEDEN  
Tel +46 722 222 864  
Fax +46 691 32230  
E-mail [info@vestasi.net](mailto:info@vestasi.net)  
Web site: [www.vestasi.net](http://www.vestasi.net)

FOR EMERGENCY SOURCE INFORMATION  
CONTACT: +46 722 222 864 (daytime)  
+46 722 222 793 (mobile)

CAS Registry Number: 12033-89-5  
CAS Name: Silicon Nitride

Substance: SILICON

TRADE NAME/ TRISILICON TETRAHYDRIDE; SILICON NITRIDE (Si<sub>3</sub>N<sub>4</sub>)  
**SICONIDE®** (our trade mark)

Area of Use: Raw material when manufacturing engineering ceramics and other industrial applications.

## SECTION 2 - Composition, Information on Ingredients

Component Substance: SILICON NITRIDE  
Component Per Cent: Min. 98 %  
CAS Registry Number: 12033-89-5  
Component Substance: SILICON DIOXIDE  
Component Per Cent: Max. 2 %  
CAS Registry Number: 7631-86-9

## SECTION 3 - Hazards Identification

**Potential Health Effects Inhalation:** May cause irritation when inhaling.

**Points of Environment Hazard:** No information is available.

**Points of Other Hazard:** Risk for dust explosion.

#### **SECTION 4 - First Aid Measures**

- Inhalation:** Remove from exposure area to fresh air immediately.
- Skin Contact:** Remove contaminated clothing and shoes immediately. Wash with soap or mild detergent and large amounts of water.
- Eye Contact:** Wash eyes immediately with large amounts of water.
- Ingestion:** Rinse mouth with water.

#### **SECTION 5 - Fire Fighting Measures**

- Extinguishing Media:** Extinguish using agent suitable for type of surrounding fire
- Firefighting:** No acute hazard. Move container from fire area if possible. Avoid breathing vapours or dust; keep upwind
- Hazardous Combustion Products:** Thermal decomposition products may include toxic oxides of nitrogen.

#### **SECTION 6 - Accidental Release Measures**

- Occupational Spill:** For large spills, sweep up with a minimum dusting
- Personal protective Equipment:** If needed use protective inhalation and protective gloves

#### **SECTION 7 - Handling and Storage**

- Handling:** Take normal care
- Storage:** Keep product dry
- Unsuitable Material:** No special restrictions

## **SECTION 8 - Exposure Controls, Personal Protection**

<b>Inhalation:</b>	If needed use suitable protective inhalation.
<b>Skin Contact:</b>	Protective clothes and protective gloves are recommended.
<b>Eye Contact:</b>	Wear dust-resistant safety goggles. Eyewash provided.
<b>Hygiene Limiting Value:</b>	5 mg/m <sup>3</sup> OSHA TWA (respirable dust).
<b>Ventilation:</b>	Provide local exhaust ventilation system to meet published exposure limits.

## **SECTION 9 - Physical and Chemical Properties**

<b>Description:</b>	White to grey powder
<b>Smell:</b>	Possible to smell ammonia
<b>Molecular Weight:</b>	140.28
<b>Molecular Formula:</b>	Si <sub>3</sub> N <sub>4</sub>
<b>Physical State:</b>	Solid
<b>Melting Point:</b>	1900°C - sublimation
<b>Specific Gravity:</b>	3.440 kg/m <sup>3</sup>
<b>Bulk Density:</b>	600 - 1,000 kg/m <sup>3</sup> depending on milling grade
<b>Water Solubility:</b>	Insoluble
<b>Explosion area in air:</b>	Not applicable

## **SECTION 10 - Stability and Reactivity**

<b>Hazard Fragmentary:</b>	Stable under normal temperatures and pressures.
<b>Hazard Reactivity:</b>	None
<b>Conditions to Avoid:</b>	Prevent dispersion of dust in air.
<b>Hazardous Decomposition products:</b>	Thermal decomposition products may include toxic oxides of nitrogen

## **SECTION 11 - Toxicological Information**

<b>Acute Toxicity:</b>	No information available
<b>Health Effects:</b>	
Inhalation:	Fine dust particles may irritate and dehydrate mucous membranes.
Skin contact:	Dust may irritate and dehydrate skin.
Eye contact:	Dust may irritate and cause dryness.
Ingestion:	Dust may irritate and dehydrate mucous membranes.
<b>Chronic effects:</b>	No chronic effects are known. Silicon Nitride powder is not known to be a reproductive toxin or mutagen.

## **SECTION 12 - Ecological Information**

Ecological information is not yet available for this record

## **SECTION 13 - Disposal Considerations**

The product is delivered in plastic or steel drum, lined with PE bag. Before sending the drum to recovery plant, take care that all the product is emptied. If needed, use water.

## **SECTION 14 - Transport Information**

No other information is currently available for this record.

## **SECTION 15 - Regulatory Information**

No other information is currently available for this record.

## **SECTION 16 - Other Information**

No other information is currently available for this record.