

MATERIAL SAFETY DATA SHEET

Revision date: January 8, 2008

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Valid until Dec 2008

SECTION 1 - Chemical Product and Company Identification

VESTA CERAMICS AB
Industriomr. 3
SE-840 10 LJUNGAVERK
SWEDEN

FOR EMERGENCY SOURCE INFORMATION
CONTACT: +46 705 64 73 20 (day time)
+46 705 64 73 20 (other time)

Phone: +46 691 359 30
Fax +46 691 359 35

CAS Registry Number: 12033-89-5

SUBSTANCE: Silicon nitride

TRADE NAME/
SYNONYM(S): TRISILICON TETRANITRIDE; **SILICON NITRIDE** (Si₃N₄);
SICONIDE (our trade mark)

Area of Use: Raw material when manufacture high performed ceramics.

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
Components 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 No information is available.

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 vapors or dusts; 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 of dusting.
- Personal Protective Equipment:** If needed use inhalation protection and glove protection.

SECTION 7 - Handling and Storage

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

SECTION 8 - Exposure Controls, Personal Protection

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

SECTION 9 - Physical and Chemical Properties

Description:	White to gray amorphous powder.
Smell:	Ammonium smell is possible to get
Molecular Weight:	140.28
Molecular Formula:	Si ₃ N ₄
Physical State (S,L,G):	S
Melting Point:	1,900°C sublimates
Specific Gravity:	3,440 kg/m ³
Bulk Density:	600 - 1.000 kg/m ³ depending on milling grade
Water Solubility:	Insoluble
Solvent Solubility:	Soluble in hydrofluoric acid
Explosion Area in Air:	Not applicable

SECTION 10 - Stability and Reactivity

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

SECTION 11 - Toxicological Information

Acute Toxicity: No information is available.

Health Effects:

Inhalation: May cause respiratory irritation and dryness of the nose.

Skin Contact: Injury to the skin may occur by chemical or mechanical action or by the rigorous skin cleansing procedures necessary for their removal.

Eye Contact: High concentrations of dusts in the workroom air may cause unpleasant deposits in the eyes.

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 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.