

# MATERIAL SAFETY DATA SHEET



LOVEJOY TOOL COMPANY, INC.  
133 MAIN STREET  
PO BOX 949  
SPRINGFIELD, VT 05156

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<b>Section 1</b>	<b>Product Information</b>	<b>Rev. Level: B</b>	<b>Page 1 of 3</b>
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**Trade Name and Synonyms:** Silicon Nitride

**Chemical Family:** Metal Nitride

**Formula:** Si<sub>3</sub>N<sub>4</sub>

**CAS No.:** 12033-89-5

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<b>Section 2</b>	<b>Product Description and Hazardous Ingredients/Identify Information</b>
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<b>Material or Component</b>	<b>Percent By Weight</b>	<b>OSHA PEL (Mg/cubicmetre)</b>	<b>ACGIH TLV</b>
Silicon	Max .59	5.0 respirable dust (see appendix D, VOSHA 29 CFR 1910)	
Nitrogen (N)	Max 38.5		
Oxygen	Max 2.5		

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<b>Section 3</b>	<b>Physical Data</b>
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**Melting Point:** Not applicable

**Specific Gravity (H<sub>2</sub>O = 1):** 3.2

**% Volatile by Volume:** Not applicable

**Evaporation Rate:** Not applicable

**Molecular Weight:** 140

**Boiling Point:** Not applicable

**Vapor Pressure:** Not applicable

**Vapor Density (Air=1):** Not applicable

**Solubility in Water:** Insoluble

**Appearance and Odor:** White-Grey powder, odorless

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<b>Section 4</b>	<b>Fire and Explosion Hazard Data</b>
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**Flash Point F (C):** Not applicable

**Extinguishing Media:** Not applicable

**Special Fire Fighting Procedures:** Not applicable

**Flammable Limits:** Not applicable

**Unusual Fire and Explosion Hazards:** Not applicable

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<b>Section 5</b>	<b>Health Hazard Data</b>
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**Usual Route(s) of Entry:** Inhalation, ingestion, eye contact, skin contact

**Effects of Overexposure:** Dust inhalation may cause mild irritation of the nose and throat. Skin and eye contact may cause irritation due to abrasive action of the dust. Current scientific evidence indicated no adverse effects are likely from accidental indigestion of small amounts of material.

**Emergency and First Aid Procedures**

**Inhalation:** Dust may cause respiratory tract irritation. Repeated or prolonged breathing of particles of respirable size may cause severe respiratory disease. Effects may include inflammation of the lung, chest pain, "Pneumoconiosis". Pre-existing medical conditions may be aggravated by exposure; specifically, bronchial hyper reactivity and chronic bronchial or lung disease.

**Skin Contact:** If irritation occurs, flush with copious amount of water. If irritation persists, seek medical attention.

**Ingestion:** If a substantial amount is swallowed dilute with a large amount of water, induce vomiting and seek medical attention.

**Carcinogenic Assessment:** (NTP Annual Report, IARC Monographs, etc.)

This material has not been identified as known or suspected carcinogenic by NIP, IARC or OSHA.

From the literature no effects on acute hazards as to the health are known; however, as a precaution we recommend to observe the handling regulations for SiO<sub>2</sub>-containing materials.

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**Section 6****Reactivity Data**

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**Stability:** Decomposition at about 1,700 centigrade

**Incompatibility:** Not applicable

**Hazardous Polymerization:** Will not occur

**Hazardous Decomposition Products:** None

**Conditions to Avoid:** Not applicable

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**Section 7****Spill or Leak Procedures**

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**Steps to be taken in Case Material is Released or Spilled:** Remove all sources of ignition. Ventilate area of spill. Clean up using methods, which avoid dust generation such as vacuuming (with appropriate filter to prevent airborne dust levels, which exceed to PEL or TLV). If airborne dust is generated, use an appropriate NIOSH approved respirator.

**Waste Disposal Method:** Dispose of in accordance with appropriate government regulations. May be sold as scrap for reclaim or returned to the producer.

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**Section 8****Disclaimer**

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**IN CASE OF QUESTIONS PLEASE CALL**

**Company Name:** Lovejoy Tool Company, Inc.

**Contact and Title of Individual:** Kristi C. Morris, Engineering Manager

**Telephone Number:** (802) 885-2194