MATERIAL SAFETY DATA SHEET

I  PRODUCT IDENTIFICATION

Trade Name: Silicon IV Nitride
Formula: Si₃N₄

II  HAZARDOUS INGREDIENTS

%    PEL          TLV
100  Not Established  Not Established

III  PHYSICAL DATA

Boiling Point: N/A
Specific Gravity (H₂O = 1): 3.44
% Volatiles by Volume: N/A
Calc. Molecular weight: 140.28
Appearance and Odor: Gray powder, odorless

Melting Point: 1900 °C (sublimes)
Vapor Pressure: N/A
Solubility in H₂O: Insoluble
Vapor Density (Air = 1): N/A

IV  FIRE AND EXPLOSION HAZARDS DATA

Flash Point (Method Used): N/A
Flammable Limits in Air: Lower: N/A  Upper: N/A

Autoignition Temperature: N/A
Extinguishing Media: Use water, carbon dioxide, dry chemical, dry chemical extinguishing agents, dry sand or dry ground dolomite.

Special Fire Fighting Procedures: No special fire-fighting procedures needed. Use normal procedures which include
wearing NIOSH/MSHA approved self-contained breathing apparatus, flame and chemical resistant clothing; hats, boots and gloves. If without risk, remove material from fire area. Cool container with water from maximum distance.

Unusual Fire & Explosion Hazard: None known

V HEALTH HAZARD INFORMATION

Effects of over Exposure: Acute:

Ingestion: May be harmful, effects not known.
Skin Contact: May cause irritation.
Eye Contact: May cause irritation.
Inhalation: Dust may cause irritation to upper respiratory tract.

Medical Conditions, if any, Aggravated by the Chemical: None known.
Other Health Hazards: None known.
Chronic Effects: None known.
Carcinogenicity: NTP: No IARC: No OSHA: No EPA: No

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. Call physician immediately.
EYES: Immediately flush eyes, including under eyelids, with large amounts of water. If irritation persists seek medical attention.
SKIN: Remove contaminated clothing, flood skin with large amounts of water. If irritation persists seek medical attention.
INGESTION: No specific information available, but one should obtain medical attention.

VI REACTIVITY DATA

Stability: Stable
Conditions to Avoid: None known
Incompatibility (Material to Avoid): None known

Hazardous Decomposition Products: None known
Hazardous Polymerization: Will not occur

VII SPILL OR LEAK PROCEDURES

Steps to Be Taken in Case Material Is Released or Spilled: Wearing full protective equipment, cover spill with dry sand or vermiculite. Mix well and carefully transfer to a container.

Waste Disposal Method: Consult state, local or federal EPA regulations for proper disposal.

VIII SPECIAL PROTECTION INFORMATION

http://www.espi-metals.com/msds/s/Silicon%20Nitride.htm

11/16/05
**Respiratory Protection:** Use a NIOSH/MSHA approved dust respirator.

**Ventilation:** Laboratory fume hood.

**Protective Gloves:** Rubber

**Eye Protection:** ANSI approved safety goggles.

**Other Protective Equipment:** Normal laboratory wear.

**IX   SPECIAL PRECAUTIONS**

**Handling and Storage:** Keep container tightly closed. Store in a cool, dry, well-ventilated area. Wash thoroughly after use.

**Other Precautions:** Lab coat and apron, flame and chemical resistant coveralls, eyewash capable of sustained flushing, safety drench shower and hygienic facilities for washing. Caution: Dust may irritate skin and eyes.

The above information is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. ESPI shall not be held liable for any damage resulting from handling or from contact with the above product.

Prepared By:       S. Dierks
Dated:                  May 1996