Material Safety Data Sheet
Trimethylsilyl cyanide, 98%

ACC# 61868

Section 1 - Chemical Product and Company Identification

MSDS Name: Trimethylsilyl cyanide, 98%
Catalog Numbers: AC199560000, AC199560050, AC199560250, NC9062372, XXAC19956-1.2K
Synonyms: Cyanotrimethylsilane; TMSCN; Silanecarbonitrile, trimethyl-; Trimethylsilylcarbonitrile.
Company Identification:

Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410

For information, call: 201-796-7100
Emergency Number: 201-796-7100
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7677-24-9	Trimethylsilyl cyanide	98	231-657-3

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear, colorless liquid. Flash Point: 1 deg C.
May be fatal if inhaled, absorbed through the skin or swallowed. **Danger! Flammable liquid and vapor.** Causes eye, skin, and respiratory tract irritation. Moisture sensitive.
Target Organs: Blood, lungs, eyes.

Potential Health Effects
Eye: Causes eye irritation.
Skin: Causes skin irritation. Harmful if absorbed through the skin. May be metabolized to cyanide which in turn acts by inhibiting cytochrome oxidase impairing cellular respiration.
Ingestion: May be fatal if swallowed. May cause tissue anoxia, characterized by weakness, headache, dizziness, confusion, cyanosis (bluish skin due to deficient oxygenation of the blood), weak and irregular heart beat, collapse, unconsciousness, convulsions, coma and death. Metabolism may release cyanide, which may result in headache, dizziness, weakness, collapse, unconsciousness and possible death. Ingestion may result in symptoms similar to cyanide poisoning which is characterized by asphyxiation.
Inhalation: May be fatal if inhaled. May cause cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood). Causes respiratory tract irritation. May be metabolized to cyanide which in turns act by inhibiting cytochrome oxidase impairing cellular respiration.
Chronic: May be metabolized to cyanide which in turn acts by inhibiting cytochrome oxidase impairing cellular respiration. Chronic exposure to cyanide solutions may lead to the development of a "cyanide" rash, characterized by itching, and by macular, papular, and vesicular eruptions, and may be accompanied by secondary infections. Exposure to small amounts of cyanide compounds over long periods of time is reported to cause loss of appetite, headache, weakness, nausea, dizziness, and symptoms of irritation of the upper respiratory tract and eyes.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for a t least 15 minutes. Get medical aid.
Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.
Ingestion: POISON material. If swallowed, get medical aid immediately. Only induce vomiting if directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
Inhalation: POISON material. If inhaled, get medical aid immediately. Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Notes to Physician: May be partially metabolized to cyanide in the body.
Antidote: Always have a cyanide antidote kit on hand when working with cyanide compounds. Get medical advice to use.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Flammable liquid and vapor. Containers may explode when heated. Reacts with water, steam or acid to produce toxic and flammable vapors of hydrogen cyanide.
Extinguishing Media: Use dry sand or earth to smother fire. Use dry chemical. DO NOT use water directly on this material or violent reaction may result.
Flash Point: 1 deg C (33.80 deg F)
Autoignition Temperature: Not available.
Explosion Limits, Lower:1.36%

Upper: Not available.
NFPA Rating: (estimated) Health: 4; Flammability: 3; Instability: 1

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. Do not expose spill to water. A vapor suppressing foam may be used to reduce vapors. Approach spill from upwind. Keep unnecessary and unprotected personnel away.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Ground and bond containers when transferring material. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Do not ingest or inhale. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Keep away from heat, sparks and flame.
Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Keep under a nitrogen blanket. Store in a cool, dry, well-ventilated area away from incompatible substances. Refrigerator/flammables. Store protected from moisture.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Trimethylsilyl cyanide	none listed	6 mg/m3 TWA (listed under Silica, amorphous).3000 mg/m3 IDLH (listed under Silica, amorphous).	5 mg/m3 TWA (listed under Cyanide anion).

OSHA Vacated PELs: Trimethylsilyl cyanide: No OSHA Vacated PELs are listed for this chemical.
Personal Protective Equipment
Eyes: Wear chemical splash goggles.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: clear, colorless
Odor: bitter-almond
pH: Not available.
Vapor Pressure: 37.3 mm Hg @ 37 deg C
Vapor Density: Not available.
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: 114 - 117 deg C @ 760 mm Hg
Freezing/Melting Point:11 deg C
Decomposition Temperature: Not available.
Solubility: Reacts.
Specific Gravity/Density:.7440 g/cm3
Molecular Formula:C4H9NSi
Molecular Weight:99.21

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Substance is readily hydrolyzed.
Conditions to Avoid: Ignition sources, excess heat, exposure to moist air or water, confined spaces.
Incompatibilities with Other Materials: Water, strong oxidizing agents, strong reducing agents, strong acids, strong bases.
Hazardous Decomposition Products: Hydrogen cyanide, nitrogen oxides, carbon monoxide, carbon dioxide.
Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:
CAS# 7677-24-9 unlisted.
LD50/LC50:
Not available.

Carcinogenicity:

CAS# 7677-24-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.
Teratogenicity: No data available.
Reproductive Effects: No data available.
Mutagenicity: No data available.
Neurotoxicity: No data available.
Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	NITRILES, FLAMMABLE, TOXIC, N.O.S.	FLAMMABLE LIQUID NOS (TRIMETHYL CYANIDE)
Hazard Class:	3	3
UN Number:	UN3273	UN1993
Packing Group:	I	II
Additional Info:		FP 1C

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 7677-24-9 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
CERCLA Hazardous Substances and corresponding RQs
None of the chemicals in this material have an RQ.
SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.
Section 313 No chemicals are reportable under Section 313.
Clean Air Act:
This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone depletors.
This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA. CAS# 7677-24-9 is listed as a Priority Pollutant under the Clean Water Act. CAS# 7677-24-9 is listed as a Toxic Pollutant under the Clean Water Act.
OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.
STATE
CAS# 7677-24-9 can be found on the following state right to know lists: California, (listed as Silica, amorphous), California, (listed as Cyanides, inorganic salts), New Jersey, (listed as Cyanide anion), New Jersey, (listed as Silica, amorphous), Pennsylvania, (listed as Cyanide anion), Pennsylvania, (listed as Silica, amorphous), Minnesota, (listed as Silica, amorphous), Massachusetts, (listed as Cyanide anion), Massachusetts, (listed as Silica, amorphous).

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols:
T+ F
Risk Phrases:
R 11 Highly flammable.
R 26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.
R 29 Contact with water liberates toxic gas.

Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.
S 36/37 Wear suitable protective clothing and gloves.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 8 Keep container dry.

WGK (Water Danger/Protection)

CAS# 7677-24-9: 3

Canada - DSL/NDSL

CAS# 7677-24-9 is listed on Canada's NDSL List.

Canada - WHMIS

This product has a WHMIS classification of B2, D1A.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 7677-24-9 (listed as Silica, amorphous) is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 1/20/1998
Revision #4 Date: 2/15/2006

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.