Material Safety Data Sheet
Trimethylsilyl cyanide, 98%

MSDS# 61868

Section 1 - Chemical Product and Company Identification

MSDS Name: Trimethylsilyl cyanide, 98%
Catalog Numbers: AC199560000, AC199560050, AC199560250, AC199561000
Synonyms: Cyanotrimethylsilane; TMSCN; Silanecarbonitrile, trimethyl-; Trimethylsilylcarbonitrile.

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticalaan 3a
2440 Geel, Belgium

Company Identification: (USA)
Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410
For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#: 7677-24-9
Chemical Name: Trimethylsilyl cyanide
%: 98
EINECS#: 231-657-3

Hazard Symbols: T+ F
Risk Phrases: 11 26/27/28 29

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Flammable liquid and vapor. Moisture sensitive. May be fatal if inhaled, absorbed through the skin or swallowed.
Causes eye, skin, and respiratory tract irritation. 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.
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,

Ingestion: 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 asphyxiaton.
May be fatal if inhaled. May cause cyanosis (bluish discoloration of skin due to deficient oxygenation of the
Inhalation:

Causes respiratory tract irritation. May be metabolized to cyanide which inhibiting cytochrome oxidase impairs cellular respiration. 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 at 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/NLIOSH (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.

Autoignition Temperature: Not available.
Flash Point: 1 deg C (33.80 deg F)
Explosion Limits: Lower: 1.36%
Explosion Limits: Upper: Not available
NFPA Rating: 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.

Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container.

Storage: Keep under a nitrogen blanket. Store in a cool, dry, well-ventilated area away from incompatible substances. Refrigerator/flamables. Store protected from moisture.

Section 8 - Exposure Controls, Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
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</thead>
</table>
OSHA Vacated PELs: Trimethylsilyl cyanide: 5 mg/m³ TWA (as CN) (listed under Cyanide anion)

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

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
Color: 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 (51.80°F)
Decomposition Temperature: Not available
Solubility in water: 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: None listed
LD50/LC50: RTECS: Not available.
Carcinogenicity: Trimethylsilyl cyanide - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: The hazards associated with cyanide may be seen in this product.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: NITRILES, FLAMMABLE, TOXIC, N.O.S.
Hazard Class: 3
UN Number: UN3273
Packing Group: I
Canada TDG
Shipping Name: Not available
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

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 8 Keep container dry.
   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).

WGK (Water Danger/Protection)

CAS# 7677-24-9: 3

Canada

CAS# 7677-24-9 is listed on Canada's NDSL List
Canadian WHMIS Classifications: 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.
CAS# 7677-24-9 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 7677-24-9 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 1/20/1998
Revision #6 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility 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 the company 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 the company has been advised of the possibility of such damages.

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