

Material Safety Data Sheet

Version 3.1
Revision Date 02/18/2010
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Trifluoroacetonitrile

Product Number : 544078
Brand : Aldrich

Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA

Telephone : +18003255832
Fax : +18003255052
Emergency Phone # : (314) 776-6555

2. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C₂F₃N
Molecular Weight : 95.02 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
Trifluoroacetonitril			
353-85-5	206-542-6	-	-

3. HAZARDS IDENTIFICATION**Emergency Overview****OSHA Hazards**

Flammable gas, Highly toxic by inhalation

HMIS Classification

Health hazard: 4
Flammability: 4
Physical hazards: 3

NFPA Rating

Health hazard: 4
Fire: 4
Reactivity Hazard: 0

Potential Health Effects

Inhalation May be fatal if inhaled. May cause respiratory tract irritation.
Skin May be harmful if absorbed through skin. May cause skin irritation. May be fatal if absorbed through skin.
Eyes May cause eye irritation.
Ingestion May be harmful if swallowed.

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point no data available

Ignition temperature no data available

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods for cleaning up

Wipe up with absorbent material (e.g. cloth, fleece).

7. HANDLING AND STORAGE

Handling

Avoid inhalation of vapour or mist.

Normal measures for preventive fire protection.

Storage

Keep container tightly closed in a dry and well-ventilated place.

Contents under pressure.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Respiratory protection is not required. Where protection is desired, use multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves.

Eye protection

Face shield and safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	gaseous
Colour	colourless

Safety data

pH	no data available
Melting point	no data available
Boiling point	-64 °C (-83 °F) at 1,013 hPa (760 mmHg)
Flash point	no data available
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	620 hPa (465 mmHg) at 20 °C (68 °F)
Water solubility	insoluble
Relative vapour density	3.28 - (Air = 1.0)

10. STABILITY AND REACTIVITY

Storage stability

Stable under recommended storage conditions.

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NO_x), Hydrogen fluoride, Hydrogen cyanide (hydrocyanic acid)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LC50 Inhalation - mouse - 6 h - > 240 ppm

Irritation and corrosion

no data available

Sensitisation

no data available

Chronic exposure

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs and Symptoms of Exposure

Acts as a simple asphyxiant by displacing air., Dizziness, Disorientation, Headache, excitement, Central nervous system depression, May cause cyanosis., Hypofunction of thyroid gland

Potential Health Effects

Inhalation	May be fatal if inhaled. May cause respiratory tract irritation.
Skin	May be harmful if absorbed through skin. May cause skin irritation. May be fatal if absorbed through skin.
Eyes	May cause eye irritation.
Ingestion	May be harmful if swallowed.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

no data available

Ecotoxicity effects

no data available

Further information on ecology

no data available

13. DISPOSAL CONSIDERATIONS

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION**DOT (US)**

UN-Number: 1955 Class: 2.3

Proper shipping name: Compressed gas, toxic, n.o.s. (Trifluoroacetonitril)

Marine pollutant: No

Poison Inhalation Hazard: Hazard zone A

IMDG

UN-Number: 1955 Class: 2.3

EMS-No: F-C, S-U

Proper shipping name: COMPRESSED GAS, TOXIC, N.O.S. (Trifluoroacetonitril)

Marine pollutant: No

IATA

UN-Number: 1955 Class: 2.3

Proper shipping name: Compressed gas, toxic, n.o.s. (Trifluoroacetonitril)

IATA Passenger: Not permitted for transport

IATA Cargo: Not permitted for transport

15. REGULATORY INFORMATION**OSHA Hazards**

Flammable gas, Highly toxic by inhalation

DSL Status

This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

Trifluoroacetonitril

CAS-No.

353-85-5

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

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New Jersey Right To Know Components

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Revision Date

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION**Further information**

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.