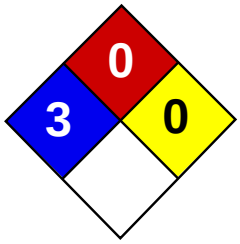

Material Safety Data Sheet

Trifluoroacetic Acid-D, 99.5 Atom % D MSDS

Section 1: Chemical Product and Company Identification

Product Name: Trifluoroacetic Acid-D, 99.5 Atom % D

Catalog Codes: SLT1987

Synonyms: TFA-D

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
599-00-8	Trifluoroacetic acid-d	99.5	209-961-2

Hazard Symbols: C

Risk Phrases: 35 20

Section 3: Hazards Identification

EMERGENCY OVERVIEW: Appearance: clear colorless to faint yellow liquid.

Danger!: Corrosive. Causes eye and skin burns. May cause severe respiratory tract irritation with possible burns. May cause severe digestive tract irritation with possible burns. Long-term exposure may cause bone and joint changes.

Target Organs: Skeletal structures, bone.

Potential Health Effects:

Eye: Causes eye burns. May cause chemical conjunctivitis and corneal damage.

Skin: Causes skin burns. May be absorbed through the skin. May cause skin rash (in milder cases), and cold and clammy skin with cyanosis or pale color.

Ingestion: May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns. May cause perforation of the digestive tract. The toxicological properties of this substance have not been fully investigated. Ingestion of large amounts of fluoride may cause salivation, nausea, vomiting, abdominal pain, fever, labored breathing. Exposure to

fluoride compounds can result in systemic toxic effects on the heart, liver, and kidneys. It may also deplete calcium levels in the body leading to hypocalcemia and death. Fluoride can reduce calcium levels leading to fatal hypocalcemia. May cause systemic effects.

Inhalation: Causes chemical burns to the respiratory tract. The toxicological properties of this substance have not been fully investigated. Aspiration may lead to pulmonary edema. May cause systemic effects. May cause headache, loss of appetite, nausea, fatigue, abdominal pain, darked urine and jaudice.

Chronic: Chronic inhalation and ingestion may cause chronic fluoride poisoning (fluorosis) characterized by weight loss, weakness, anemia, brittle bones, and stiff joints. Effects may be delayed. Chronic exposure to fluoride compounds may cause systemic toxicity.

Section 4: First Aid Measures

Eyes: Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician: Treat symptomatically and supportively.

Section 5: Fire and Explosion Data

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Can burn in a fire, releasing toxic vapors. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

Extinguishing Media: Use agent most appropriate to extinguish fire. Do NOT get water inside containers. Cool containers with flooding quantities of water until well after fire is out. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Flash Point: Not available.

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 3; Flammability: 0; Instability: 0

Section 6: Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as sawdust. Provide ventilation. Do not get water inside containers.

Section 7: Handling and Storage

Handling: Wash thoroughly after handling. Use with adequate ventilation. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Avoid ingestion and inhalation. Discard contaminated shoes.

Storage: Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area.

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 process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

Exposure Limits:

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Trifluoroacetic acid-d	none listed	none listed	none listed

OSHA Vacated PELs: Trifluoroacetic acid-d: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment:

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9: Physical and Chemical Properties

Physical State: Liquid

Appearance: clear colorless to faint yellow

Odor: acetic odor

pH: acidic

Vapor Pressure: 4.0 mm Hg @ 0C

Vapor Density: 3.96

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 75 deg C

Freezing/Melting Point: -15 deg C

Decomposition Temperature: Not available.

Solubility: Moderately Soluble.

Specific Gravity/Density: 1.493

Molecular Formula: C2DF3O2

Molecular Weight: 115.008

Section 10: Stability and Reactivity Data

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Incompatible materials, ignition sources, acids, strong oxidants, bases.

Incompatibilities with Other Materials: Oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, fluoride fumes, hydrogen fluoride gas.

Hazardous Polymerization: Has not been reported

Section 11: Toxicological Information

RTECS#:

CAS#: 599-00-8 unlisted.

LD50/LC50: Not available.

Carcinogenicity: CAS# 599-00-8: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Neurotoxicity: No information available.

Mutagenicity: No information available.

Other Studies: No data available.

Section 12: Ecological Information

Section 13: Disposal Considerations

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14: Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	DOT regulated - small quantity provisions apply (see 49CFR173.4)				No information available.
Hazard Class:					
UN Number:					
Packing Group:					

Section 15: Other Regulatory Information

US FEDERAL:

TSCA: CAS# 599-00-8 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.

SARA:

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. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

STATE: CAS# 599-00-8 is not present on state lists from CA, PA, MN, MA, FL, or NJ. 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: C

Risk Phrases: R 35 Causes severe burns. R 20 Harmful by inhalation.

Safety Phrases: S 37 Wear suitable gloves. S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S 28A After contact with skin, wash immediately with plenty of water.

WGK (Water Danger/Protection): CAS# 599-00-8: No information available.

Canada - DSL/NDSL: CAS# 599-00-8 is listed on Canada's NDSL List.

Canada - WHMIS: This product has a WHMIS classification of E.

Canadian Ingredient Disclosure List:

Exposure Limits:

Section 16: Other Information

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Last Updated: 11/01/2010 12:00 PM

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