



MATERIAL SAFETY DATA SHEET

Version :02

PRODUCT NAME: 2,2,2-TRIFLUOROETHANOL

CAS Number: 75-89-8

1. IDENTIFICATION:

Product Code : 92066, 98219

Company Name : ADVENT CHEMBIO PRIVATE LIMITED

Address : W-279, MIDC, TTC INDUSTRIAL AREA, THANE-BELAPUR ROAD, RABALE,
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2. HAZARDS IDENTIFICATION:**Hazard classification****Physical hazards**

Flammable Liquids : Category 3

Health hazards

Acute toxicity : Category 3 (Toxic if swallowed)

Acute toxicity : Category 3 (Toxic if inhaled)

Serious eye damage : Category 1

Reproductive toxicity : Category 1B

Specific target organ toxicity - repeated exposure, Blood : Category 2

Labels elements :

Hazard symbol :



Signal word : Danger

Hazard statement : Flammable liquid and vapor.
Toxic if swallowed or if inhaled.
Causes serious eye damage.
May damage fertility.
May cause damage to organs (Blood) through prolonged or repeated exposure if inhaled.

Precautionary statement

Prevention : Obtain special instructions before use.
Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not handle until all safety precautions have been read and understood.
Wear protective gloves/ protective clothing/ eye protection/ face protection.



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Response	Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking. Keep container tightly closed. Ground/ bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge.
	: IF exposed or concerned: Get medical advice/ attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF SWALLOWED: Immediately call a poison center or doctor/physician.
Storage	: Store in a dry & well-ventilated place. Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Disposal	: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Other hazards which do not result in GHS classification	: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

3. COMPOSITION/ INFORMATION ON INGREDIENTS:

Ingredient	CAS Number	Percent	Hazardous
2,2,2-Trifluoroethanol	75-89-8	NLT 99.0%	Yes

4. FIRST AID MEASURES:

General information	: Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
Ingestion	: Give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.
Inhalation	: Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms persist.
Skin contact	: Immediately flush with plenty of water for at least 15 minutes. Get medical attention.
Eye contact	: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.



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Most important symptoms/effects, acute and delayed : The most important known symptoms and effects are described in the labelling.

Indication of immediate medical attention and special treatment needed : No data available.

5. FIRE FIGHTING MEASURES:

General information : Flammable liquid and vapor.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water, Foam, Carbon dioxide (CO₂), Dry powder

Unsuitable extinguishing media : For this substance/mixture no limitations of extinguishing agents are given.

Specific hazards arising from the chemical : Carbon oxides, Hydrogen fluoride, Combustible.
Fire may cause evolution of: Hydrogen fluoride Vapors are heavier than air and may spread along floors.
Forms explosive mixtures with air at elevated temperatures. Development of hazardous combustion gases or vapours possible in the event of fire.

Special protective equipment and precautions for firefighters

Special firefighting procedures : Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Special protective equipment for fire-fighters : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment and emergency procedures : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
Avoid breathing mists or vapors. Keep upwind. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up : Eliminate all ignition sources if safe to do so. Use only non-sparking tools. Take precautionary measures against static discharges. Stop leak if possible without any risk.
Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.

Notification Procedures : Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.

Environmental precautions : Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.



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7. HANDLING AND STORAGE:

Precautions for safe handling	Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Wear protective gloves/protective clothing/eye protection/ face protection. Avoid contact with eyes, skin, and clothing. Do not breathe mist or vapor. Use only with adequate ventilation. Wash hands thoroughly after handling.
Conditions for safe storage, including any incompatibilities	Keep away from food, drink and animal feeding stuffs. Keep container tightly closed in a dry, well-ventilated place. Ground container and transfer equipment to eliminate static electric sparks.

8. EXPOSURE CONTROLS PERSONAL PROTECTION:

Appropriate engineering controls

: No data available

Individual protection measures, such as personal protective equipment

General information	: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.
Eye/face protection	: Wear safety glasses with side shields (or goggles).
Hand protection	: Chemical resistant gloves.
Other	: Wear suitable protective clothing.
Respiratory protection	: Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds.
Hygiene measures	: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower. Avoid contact with eyes, skin, and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance	: Colorless to almost colorless liquid.
Odor	: characteristic
Solubility	: Miscible in water.
Formula	: C ₂ H ₃ F ₃ O
Molecular Weight	: 100.04 g/mol
Density	: 1.3920 - 1.3950 g/cm ³ at 20°C



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pH	: Neutral
% Volatiles by volume @ 21C (70F)	: No data available.
Boiling Point	: 74°C
Melting Point	: -43.5°C
Flash Point	: 30 °C
Relative vapor density	: 3.5
Vapor Pressure (mm Hg)	: No data available.
Evaporation Rate (BuAc=1)	: No data available.

10. STABILITY AND REACTIVITY:

Reactivity	: Vapor/air-mixtures are explosive at intense warming.
Chemical stability	: Material is stable under ambient conditions..
Possibility of hazardous reactions	: Violent reactions possible with: Strong oxidizing agents, strong alkalis
Conditions to avoid	: Heating
Incompatible materials	: No data available.
Hazardous decomposition products	: In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION:

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product	: LD 50 : 153 mg/kg
Dermal Product	: LD 50 (Rat): > 2.000 mg/kg
Inhalation Product	: 3.207827 mg/l - vapor
Repeated dose toxicity Product	: No data available.
Skin corrosion/irritation Product	: Skin - Rabbit Result: No skin irritation - 4 h
Serious eye damage/eye irritation Product	: Eyes - Rabbit Result: Irreversible effects on the eye
Respiratory or skin sensitization Product	: Local lymph node assay (LLNA) – Mouse Result: negative
Carcinogenicity Product	: No data available.
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans	: No data available.



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US. National Toxicology

Program (NTP) Report on Carcinogens : No data available.

US. OSHA Specifically

Regulated Substances (29 CFR 1910.1001-1050 : No data available.

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: Chinese hamster lung cells

: Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Mouse lymphoma test

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Reproductive toxicity

Product : May damage fertility.

Specific target organ

toxicity - single exposure Product : No data available.

Specific target organ

toxicity - repeated exposure Product : Inhalation - May cause damage to organs through prolonged or repeated exposure. - Blood

Aspiration hazard Product

: No data available.

Other effects

: No data available.

12. ECOLOGICAL INFORMATION:

Ecotoxicity

Acute hazards to the aquatic environment

Fish Product

: flow-through test LC50 - Pimephales promelas (fathead minnow) - 119 mg/l - 96 h

Toxicity to daphnia and

other aquatic invertebrates

: semi-static test EC50 - Daphnia magna (Water flea) - > 1.000 mg/l - 48 h

Toxicity to algae

: static test ErC50 - Pseudokirchneriella subcapitata (green algae) - > 974 mg/l - 72 h

Toxicity to bacteria

: static test EC50 - activated sludge - > 1.000 mg/l - 3 h



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Chronic hazards to the aquatic environment

Fish Product : No data available.

Aquatic invertebrates
Product : No data available.Toxicity to Aquatic Plants
Product: : No data available.

Persistence and degradability

Biodegradation Product : aerobic - Exposure time 28 d Result: 0 % - Not readily biodegradable.

BOD/COD ratio Product : No data available.

Bioaccumulative potential

Bioconcentration factor
(BCF) Product : No data available on bioaccumulation.Partition coefficient n-
octanol / water (log Kow)
Product : No data available.

Mobility in soil : No data available.

Other adverse effects : No data available.

13. DISPOSAL CONSIDERATION:

Disposal instructions : Discharge, treatment, or disposal may be subject to national, state, or local laws. Disposal recommendations are based on uncontaminated material.

Contaminated packaging : Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION:

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
ADR/RID	UN 1992	2,2,2-Trifluoroethanol	3 (6.1)	III	No
IMDG	UN 1992	2,2,2-Trifluoroethanol	3 (6.1)	III	No
IATA	UN 1992	2,2,2-Trifluoroethanol	3 (6.1)	III	No

15. REGULATORY INFORMATION:

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

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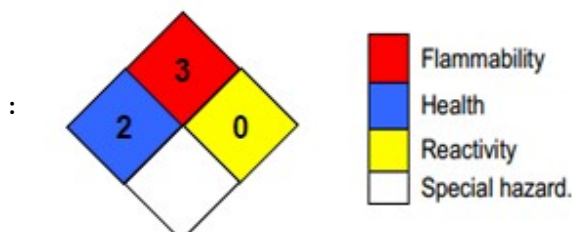
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16. OTHER INFORMATION:

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

Issue Date : 15/07/2026

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