



The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.

DuPont
Material Safety Data Sheet

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6406FR 3,3,3-Trifluoropropene
Revised 31-JAN-2008

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

CAS Number : 677-21-4
Formula : C3H3F3
Molecular Weight : 96.05
CAS Name : 3,3,3-Trifluoropropene

Tradenames and Synonyms

Trifluoropropylene
1,1,1-Trifluoro-2-propene
(Trifluoromethyl)ethylene
(Trifluoromethyl)ethene
TFP

Company Identification

MANUFACTURER/DISTRIBUTOR
DuPont Fluoroproducts
1007 Market Street
Wilmington, DE 19898

PHONE NUMBERS

Product Information : 1-800-441-7515 (outside the U.S.
302-774-1000)
Transport Emergency : CHEMTREC 1-800-424-9300(outside U.S.
703-527-3887)
Medical Emergency : 1-800-441-3637 (outside the U.S.
302-774-1000)

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
3,3,3-Trifluoropropene	677-21-4	99.8

HAZARDS IDENTIFICATION

Potential Health Effects

Eyes: Direct eye contact with the liquid or cold gas can cause chilling or possibly frostbite of exposed tissues.

Skin: Direct skin contact with the liquid or cold gas can cause chilling or possibly frostbite of exposed tissues.

(HAZARDS IDENTIFICATION - Continued)

Ingestion: Not expected to be a hazard in normal industrial use.

Inhalation: Inhalation of high concentrations can be harmful or fatal due to oxygen deprivation and/or heart irregularities (arrhythmias). Misuse of the product by deliberately inhaling high concentrations of this gas could cause death without warning.

Chronic Health Effects: Possible mutagen.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

FIRST AID MEASURES

First Aid

INHALATION

If high concentrations are inhaled, immediately remove to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SKIN CONTACT

Flush area with lukewarm water. Do not use hot water. If frostbite has occurred, call a physician.

EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

INGESTION

If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

Notes to Physicians

The use of epinephrine or similar compounds can increase susceptibility to heart irregularities caused by excessive exposure to these types of compounds.

FIRE FIGHTING MEASURES

Flammable Properties

Flammable limits in Air, % by Volume
LEL : 4.7 %
UEL : 13.5 %

Flammable gas.

Extinguishing Media

Water Spray, Foam, Dry Chemical, CO2.

Fire Fighting Instructions

Evacuate personnel to a safe area. Wear self-contained breathing apparatus (SCBA) and full protective equipment.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Eliminate all sources of ignition - heat, sparks, flame, electricity, impact and friction.

Accidental Release Measures

Shut off all sources of ignition. Evacuate area and ventilate. Do not enter areas where high concentrations may exist (especially confined or poorly ventilated areas) without appropriate protective equipment including self-contained breathing apparatus.

HANDLING AND STORAGE

Handling (Personnel)

Do not breathe gas. Avoid contact with eyes, skin or clothing.

Handling (Physical Aspects)

Keep away from heat, sparks and flames. Keep container tightly closed.

(HANDLING AND STORAGE - Continued)

Storage

Store in a cool, dry, well-ventilated area away from incompatible materials. Store away from heat, sparks and flame. Protect cylinders from damage. Store cylinders upright, secured to a rack or wall to prevent tipping. Store with valve protection cap in place. Use hand truck for moving cylinders.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use only with adequate ventilation.

Personal Protective Equipment

EYE/FACE PROTECTION

Wear safety glasses. Where splash potential exists, wear chemical splash goggles.

RESPIRATORS

Wear NIOSH approved respiratory protection, as appropriate.

PROTECTIVE CLOTHING

Where there is potential for skin contact have available and wear as appropriate impervious gloves, apron, pants and jacket.

Exposure Guidelines

Exposure Limits

3,3,3-Trifluoropropene
PEL (OSHA) : None Established
TLV (ACGIH) : None Established

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point : -21.5 C (-6.7 F)
Vapor Pressure : 3380 mm Hg @ 20 degrees C
 113.6 psia @ 35 degrees C
Vapor Density : 3.3 mm Hg
% Volatiles : 100 %
Volatile Organic Content: 100 lb/gal
Solubility in Water : Slightly soluble
Odor : Odorless.
Form : Gas.
Color : Colorless.

(PHYSICAL AND CHEMICAL PROPERTIES - Continued)

Specific Gravity : 1.2 @ -75 degrees C
0.94 @ 22.5 degrees C
0.884 @ 48 degrees C

STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

Incompatibility with Other Materials

Incompatible or can react with strong oxidizers.

Decomposition

Hazardous gases or vapors can be released, including hydrogen fluoride (HF), carbon dioxide, carbon monoxide.

Polymerization

Polymerization will not occur.

The product can polymerize in the presence of a strong initiator.

TOXICOLOGICAL INFORMATION

Animal Data

Inhalation LD50 (mouse): 1,750 g/m3/1H
1,691 g/m3/2H

The toxicological properties of this product have not been fully investigated. May be harmful if inhaled. No ill effects were reported in rats for a 7 hour exposure to 10,000 ppm.

In a 14 day inhalation range test with an unspecified species, a level of 1,000 ppm for 6 hour/day, 5 days/week, produced no observable effects.

In mutagenicity studies, this product has shown mutagenic effects.

DISPOSAL CONSIDERATIONS

Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

TRANSPORTATION INFORMATION

Shipping Information

DOT
Proper Shipping Name : Liquefied Gas, Flammable N.O.S. - (3,3,3
- Trifluoropropene)
Hazard Class : 2.1
I.D. No. (UN/NA) : UN 3161

REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status : Listed.

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes
Chronic : Yes
Fire : Yes
Reactivity : No
Pressure : Yes

OTHER INFORMATION

NFPA, NPCA-HMIS

NPCA-HMIS Rating
Health : 2
Health : * (Chronic Health Effects)
Flammability : 4
Reactivity : 0

Personal Protection rating to be supplied by user depending on use conditions.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS : MSDS Coordinator

(Continued)

> : DuPont Fluoroproducts
Address : Wilmington, DE 19898
Telephone : (800) 441-7515

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS