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

HFC-125
3020FR Revised 4-MAR-2008

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

Corporate MSDS Number	: DU002868
CAS Number	: 354-33-6
Formula	: CHF2-CF3
CAS Name	: PENTAFLUOROETHANE

Tradenames and Synonyms

"SUVA" 125
"ZYRON" 125
FE-125
Dymel(r) 125
CC0911

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	%
ETHANE, PENTAFLUORO-	354-33-6	100

HAZARDS IDENTIFICATION

Potential Health Effects

INHALATION

Gross overexposure may cause: Central nervous system depression with dizziness, confusion, incoordination, drowsiness or unconsciousness. Suffocation, if air is displaced by vapors. Based on animal data, this material may cause: Irregular heart

(HAZARDS IDENTIFICATION - Continued)

beat with a strange sensation in the chest, "heart thumping", apprehension, lightheadedness, feeling of fainting, dizziness, weakness, sometimes progressing to loss of consciousness and death.

SKIN CONTACT

Immediate effects of overexposure may include: Frostbite, if liquid or escaping vapor contacts the skin. Significant skin permeation, and systemic toxicity, after contact appears unlikely. There are no reports of human sensitization.

ADDITIONAL HEALTH EFFECTS

Increased susceptibility to the effects of this material may be observed in persons with pre-existing disease of the: cardiovascular system.

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 concentrations above the recommended levels are inhaled, immediately move person 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:

Not a probable route. However, in case of accidental ingestion, call a physician.

(FIRST AID MEASURES - Continued)

Notes to Physicians

THIS MATERIAL MAY MAKE THE HEART MORE SUSCEPTIBLE TO ARRHYTHMIAS. Catecholamines such as adrenaline, and other compounds having similar effects, should be reserved for emergencies and then used only with special caution.

FIRE FIGHTING MEASURES

Flammable Properties

NOTE: HFC-125 is used as a fire extinguishant.

Flash Point: No flash point

Flammable Limits in air, % by Volume:
LEL : None per ASTM E681
UEL : None per ASTM E681

Extinguishing Media

Use media appropriate for surrounding material.

Fire Fighting Instructions

Evacuate personnel to a safe area. Wear self-contained breathing apparatus (SCBA) and full protective equipment. Cool tank/container with water spray.

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.

Accidental Release Measures

Ventilate area, especially low or enclosed places where heavy vapors might collect. Do not reoccupy area until the HFC-125 vapor concentration is within recommended levels and the room atmosphere is safe. Extinguish open flames or eliminate sources of extremely high temperature that may produce decomposition products. Comply with Federal, State, and local regulations on reporting releases.

HANDLING AND STORAGE

Handling (Personnel)

Avoid breathing high concentrations of vapor. Use with sufficient ventilation to keep employee exposure below recommended limits. Avoid contact with skin, eyes, and clothing.

Storage

Clean, dry area. Do not store above 52 deg C (125 deg F).

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Normal ventilation for standard manufacturing procedures is generally adequate. Local exhaust should be used when large amounts are released. Mechanical ventilation should be used in low or enclosed places.

Personal Protective Equipment

Impervious gloves should be used to avoid prolonged or repeated exposure. Chemical splash goggles should be available for use as needed to prevent eye contact. Under normal manufacturing conditions, no respiratory protection is required when using this product. Self-contained breathing apparatus (SCBA) is required if a large release occurs.

Exposure Guidelines

Exposure Limits
HFC-125

PEL	(OSHA)	: None Established
TLV	(ACGIH)	: None Established
AEL *	(DuPont)	: 1000 ppm, 8 & 12 Hr. TWA
WEEL	(AIHA)	: 1000 ppm, 4900 mg/m3, 8 Hr. TWA

* AEL is DuPont’s Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point	: -48.5 C (-55.3 F)
Vapor Pressure	: 1377 kPa 200 psia at 25 deg C (77 deg F)
Vapor Density	: 4.2 (Air = 1)
Freezing Point	: -103 C (-153 F)
% Volatiles	: 100 WT%
Solubility in Water	: 0.09 WT% @ 25 C (77 F)
Odor	: Slight ethereal
Form	: Liquefied gas
Color	: Clear, colorless
Density	: 1.248 g/cc at 20 deg C (68 deg F) - Liquid

STABILITY AND REACTIVITY

Chemical Stability

Material is stable under normal storage conditions. In the presence of open flames or extemely high temperatures, decomposition may occur.

Incompatibility with Other Materials

Incompatible with alkali or alkaline earth metals- powdered Al, Zn, Be, etc.

Decomposition

Decomposition products are hazardous. This material can be decomposed by high temperatures (open flames, glowing metal surfaces, etc.) forming hydrofluoric acid and possibly carbonyl fluoride.

As in the case with all HFC fire extinguishants, there is a potential to produce hazardous thermal decomposition products. Appropriate caution must be used to ensure that safe levels of fire extinguishant and decomposition products exist before allowing personnel to enter the area without appropriate personal protective equipment.

Polymerization

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

Animal Data

EYE:

This material has not been tested for eye irritation.

SKIN:

LD50: No information found.

This material has not been tested for skin irritation or sensitization.

INGESTION:

LD50: No information found.

INHALATION:

4 hour, ALC, rat: > 709,000 ppm (Very low toxicity).

Single exposure to high doses caused: Lethargy. Labored breathing. Weak cardiac sensitization, a potentially fatal disturbance of heart rhythm caused by a heightened sensitivity to the action of epinephrine. Lowest-Observed-Adverse-Effect-Level for cardiac sensitization: 100,000 ppm.
Repeated exposure caused: No significant toxicological effects.
No-Observed-Adverse-Effect-Level (NOAEL): 75,000 ppm

ADDITIONAL TOXICOLOGICAL EFFECTS:

No animal data are available to define the following effects of this material: carcinogenicity, reproductive toxicity. In animal testing this material has not caused developmental toxicity. Tests have shown that this material does not cause genetic damage in bacterial or mammalian cell cultures, or in animals. This material has not been tested for its ability to cause permanent genetic damage in reproductive cells of mammals (not tested for heritable genetic damage).

DISPOSAL CONSIDERATIONS

Waste Disposal

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

TRANSPORTATION INFORMATION

Shipping Information

DOT/IMO
Proper Shipping Name : PENTAFLUOROETHANE
Hazard Class : 2.2
UN No. : 3220
DOT/IMO Label : NONFLAMMABLE GAS

REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status : Reported/Included.

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

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

LISTS:

SARA Extremely Hazardous Substance -No
CERCLA Hazardous Substance -No
SARA Toxic Chemical -No

OTHER INFORMATION

NFPA, NPCA-HMIS

NPCA-HMIS Rating
Health : 1
Flammability : 0
Reactivity : 1

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

(Continued)

# Indicates updated section.

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