



Du Pont Chemicals

2190FR



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"SUVA" CENTRI-LP

MATERIAL IDENTIFICATION

Corporate Number DU002798

"SUVA" is a registered trademark of Du Pont.

Manufacturer/Distributor Du Pont
1007 Market Street
Wilmington, DE 19898

Phone Numbers Product Information 1-800-441-9442
Transport Emergency CHEMTREC: 1-800-424-9300
Medical Emergency 1-800-441-3637

Chemical Family HALOGENATED HYDROCARBON

Du Pont Registry Number DP137-37-5

Formula CHCl₂CF₃

TSCA Inventory Status Reported/Included

NPCA-HMIS Ratings Health: 1
Flammability: 0
Reactivity: 1
Personal Protection rating to be supplied by user depending on use conditions.

COMPONENTS

Material	CAS Number	Percent
ETHANE, 2,2-DICHLORO-1,1,1-TRIFLUORO- (HCFC 123)	306-83-2	100

PHYSICAL DATA

Boiling Point 27.6°C (81.7°F) at 760 mm Hg.

Vapor Pressure 13 psia at 25 deg C (77 deg F)

Vapor Density 5.3 (Air = 1.0)

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To Conrad	From C. Roberts
Co. Dow	Co. DuPont
Dept.	Phone 800 441 9442
Fax # 384-8575	Fax #

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PHYSICAL DATA (continued)

% Volatiles	100 WT %
Evaporation Rate	(CCl ₄ = 1.0) Less than 1
Water Solubility	0.39 WT % at 25°C (77°F)
pH	Neutral
Odor	Slight ethereal
Form	Liquid
Color	Clear, colorless
Liquid Density : 1.46 g/cc at 25 deg C (77 deg F)	

HAZARDOUS REACTIVITY

Instability	Material is stable. However, avoid open flame and high temperature.
Incompatibility	Incompatible with alkali or alkaline earth metals- powdered Al, Zn, Be, etc.
Polymerization	Polymerization will not occur.
Decomposition	: Decomposition products are hazardous. This compound can be decomposed by high temperatures (open flames, glowing metal surfaces, etc.) forming hydrochloric and hydrofluoric acids-possibly carbonyl halides.

FIRE AND EXPLOSION DATA

Flash Point	Will not burn
Flammable Limits in Air, % by Volume	LEL Not applicable UEL Not applicable
Autoignition	Not determined
Autodecomposition	Not determined
Fire and Explosion Hazards	Containers may rupture under fire conditions. Decomposition may occur.
Extinguishing Media	As appropriate for combustibles in area.
Special Fire Fighting Instructions	Use water spray to cool containers. Self-contained breathing apparatus (SCBA) is required if drums rupture and contents are spilled under fire conditions.

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HEALTH HAZARD INFORMATION

PRINCIPAL HEALTH HAZARDS (Including Significant Routes, Effects, Symptoms of Overexposure, and Medical Conditions Aggravated by Exposure)

Inhalation of high concentrations of vapor is harmful and may cause heart irregularities, unconsciousness, or death. Intentional misuse or deliberate inhalation may cause death without warning. Vapor reduces oxygen available for breathing and is heavier than air. Product causes mild eye irritation. Decomposition products are hazardous.

ANIMAL DATA:

Inhalation 4-hour LC50: 32,000 ppm in rats
Oral ALD : 9000 mg/kg in rats
Skin Absorption LD50 : >2000 mg/kg in rabbits

The compound is not a skin irritant, is a mild to moderate eye irritant, and is not a skin sensitizer in animals. Single applications of high doses to the skin caused nonspecific effects such as weight loss and irritation. Toxic effects noted in animals from single exposure by inhalation at concentrations of 5000 ppm or greater include effects on unconditioned reflexes, locomotor activity and coordination, suggesting anesthetic effects. Single inhalation exposures of concentrations above 18,900 caused central nervous system effects, such as anesthesia, and nonspecific effects associated with lethality. Cardiac sensitization occurred in dogs at concentrations of 20,000 ppm or greater. Repeated exposures to 300 ppm resulted in alterations in blood chemistry; higher doses caused anesthetic effects, reduced lymphocyte counts, increased liver weight and enzyme alterations, and decreased body weight gain. Long-term exposure caused decreased body weight, altered clinical chemistry, and increased urinary fluoride concentration in rats; dogs demonstrated slight liver damage.

Inhalation of 300, 1000 or 5000 ppm for two years caused an increase in benign testicular and benign pancreatic tumors in male rats; an increase in benign pancreatic tumors was observed in female rats exposed to 5000 ppm. In the same study, male and female rats exposed to 5000 ppm showed an increased incidence in benign liver tumors. Smaller increases in the incidence of these benign liver tumors were observed in females at 300 and 1000 ppm, while none were observed in female controls. The biological significance of the preceding tumors is unknown at this time; however all were late-occurring and none were judged to be life-threatening. No tumors were seen at the one-year interim pathological evaluation. Additionally, evidence of retinal atrophy was observed in this two-year study in both treated and control animals, although the toxicological significance is undetermined.

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HEALTH HAZARD INFORMATION (continued)

No animal test reports are available to define reproductive hazards. Animal data indicate that this material does not specifically harm the unborn animal. The compound does not produce genetic damage in bacterial cell cultures or in animals; however, in one study genetic damage was produced in mammalian cell cultures.

HUMAN HEALTH EFFECTS:

Human health effects of overexposure by eye contact may include eye irritation with discomfort, tearing, or blurring of vision. Overexposure by inhalation to the vapors may cause temporary nervous system depression with anesthetic effects such as dizziness, headache, confusion, incoordination, and loss of consciousness; or with gross overexposure (>20%), possibly temporary alteration of the heart's electrical activity with irregular pulse, palpitations, or inadequate circulation.

Individuals with preexisting diseases of the central nervous or cardiovascular system may have increased susceptibility to the toxicity of excessive exposures.

Carcinogenicity

None of the components in this material is listed by IARC, NTP, OSHA, or ACGIH as a carcinogen.

Applicable Exposure Limits

ETHANE, 2,2-DICHLORO-1,1,1-TRIFLUORO- (HCFC 123)	
AEL* (Du Pont)	⇒ 10 ppm, (8 & 12 hr TWA)
TLV (ACGIH)	None Established
PEL (OSHA)	None Established

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

Safety Precautions

Avoid breathing high concentrations of vapor. Provide adequate ventilation for storage, handling, and use, especially for enclosed or low spaces. Avoid contact of liquid with eyes and prolonged skin exposure. Do not allow product to contact open flame or electrical heating elements because dangerous decomposition products may form.

FIRST AID**INHALATION**

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

SKIN CONTACT

In case of contact, flush with water. Get medical attention if irritation is present.

EYE CONTACT

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

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FIRST AID (continued)**INGESTION**

If swallowed, no specific intervention is indicated as the compound is not likely to be hazardous by ingestion. However, consult a physician if necessary. Do not induce vomiting because the hazard of aspirating the material into the lungs is considered greater than swallowing it.

Notes to Physician

Because of possible disturbances of cardiac rhythm, catecholamine drugs, such as epinephrine, should be considered only as a last resort in life-threatening emergencies.

PROTECTION INFORMATION**Generally Applicable Control Measures and Precautions**

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. Use NIOSH approved respiratory protection if exposure limits may be exceeded. Self-contained breathing apparatus (SCBA) is required if a large spill occurs.

DISPOSAL INFORMATION**Aquatic Toxicity**

The compound is expected to be slightly toxic.
96-hour LC50, fathead minnows: >77 mg/L

Spill, Leak, or Release

NOTE: Review FIRE AND EXPLOSION HAZARDS and SAFETY PRECAUTIONS before proceeding with clean up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up.

Dike spill. Prevent liquid from entering sewers, waterways or low areas.

Ventilate area. Collect on absorbent material and transfer to steel drums for recovery/disposal. Comply with Federal, State, and local regulations on reporting releases.

Du Pont Emergency Exposure Limits (EEL) are established to facilitate site or plant emergency evacuation and specify airborne concentrations of brief durations which should not result in permanent adverse health effects or interfere with escape. EEL's are expressed as airborne concentration multiplied by time (CxT) for up to a maximum of 60 minutes and as a ceiling airborne concentration. These limits are used in conjunction with engineering controls/monitoring and as an aid in planning for episodic releases and spills. For more information on the applicability of EEL's, contact Du Pont.

The Du Pont Emergency Exposure Limit (EEL) for HCFC-123 Refrigerant is 1000 ppm for up to 60 minutes with a 1 minute not-to-exceed ceiling of 2500 ppm.

Waste Disposal

Recover by distillation or remove to permitted waste disposal facility. Comply with Federal, State, and local regulations.

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SHIPPING INFORMATION

Shipping Containers

Tank Car
Tank Truck
Pails
Drums"SUVA" Centri-LP is not regulated as a hazardous material by DOT or IMO.

STORAGE CONDITIONSClean, dry area. Do not heat above 125 deg F.

TITLE III HAZARD CLASSIFICATIONS

Acute	Yes
Chronic	Yes
Fire	No
Reactivity	No
Pressure	No

LISTS:

Extremely Hazardous Substance	-No
CERCLA Hazardous Substance	-No
Toxic Chemicals	-No

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:

W. J. Brock
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Indicates updated section.

End of MSDS