



Safety Data Sheet

Methyl Fluoride

Section 1: Product and Company Identification

Middlesex Gases & Technologies

292 Second Street

P.O. Box 490249

Everett, MA 02149

(617) 387-5050

(800) 649-6704

Fax (617) 387-3537

<http://www.middlesexgases.com/>

Product Code: Methyl Fluoride

Section 2: Hazards Identification

**Warning****Hazard Classification:**

Gases Under Pressure

Hazard Statements:

Contains gas under pressure; may explode if heated

Precautionary Statements**Storage:**

Protect from sunlight.

Store in well-ventilated place.

Section 3: Composition/Information on Ingredients

CAS #

75-02-5

Chemical Substance	Chemical Family	Trade Names
Methyl Fluoride	halogenated, aliphatic	FLUOROMETHANE; METHANE, FLUORO-; FREON 41; FLUOROMETHANE (CH3F); CH3F; HALACARBON 41; UN2454

Section 4: First Aid Measures

Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
If frostbite or freezing occur, immediately flush with plenty of lukewarm water (105-115 F; 41-46 C). DO NOT USE HOT WATER. If warm water is not available, gently wrap affected parts in blankets. Get immediate medical attention.	Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention immediately.	Not likely route of exposure. Give large amounts of water. DO NOT induce vomiting.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.	

Section 5: Fire Fighting Measures

Suitable Extinguishing Media	Products of Combustion	Protection of Firefighters
May explode, gas/air mixtures are heavier than air. Use carbon dioxide, regular dry chemical	Toxic hydrogen fluoride gas	<ul style="list-style-type: none"> Full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6: Accidental Release Measures

Personal Precautions	Environmental Precautions	Methods for Containment
Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering.	Avoid heat, flames, sparks and other sources of ignition. Keep out of water supplies and sewers.	Stop leak if possible without personal risk. Reduce vapors with water spray. Remove sources of ignition.

Methods for Cleanup	Other Information
Contact emergency personnel, all response personnel should wear self contained breathing apparatus (SCBA) for protection against possible exposure.	

Section 7: Handling and Storage

Handling	Storage
Store and handle in accordance with all current regulations and standards. Protect from physical damage. Store in a cool, dry place. Store in a well-ventilated area. Store outside or in a detached building. Subject to storage regulations: U.S. OSHA 29 CFR 1910.106. Grounding and bonding required. Keep separated from incompatible substances.	Avoid heat, flames, sparks and other sources of ignition.

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines
NIOSH REL: TWA 1 ppm C 5 ppm [use 1910.1017]

Engineering Controls

No specific controls are needed.

Eye Protection	Skin Protection	Respiratory Protection
Wear splash resistant safety goggles with a face shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.	Wear appropriate chemical resistant clothing.	Full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

Section 9: Physical and Chemical Properties

Physical State	Appearance	Color	Change in Appearance	Physical Form	Odor	Taste
Gas	Colorless	Clear	N/A	Gas	Faint ethereal	N/A

Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits	Lower Explosive Limits
N/A	Not available	Not available	860 F (460 C)	2.6	21.7

Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity	Water Solubility	pH	Odor Threshold	Evaporation Rate	Viscosity
-98 F (-72 C)	-258 F (-161 C)	19119 mmHg @ 21.1 C	1.6 (Air=1)	0.7 @ 0 C (Water =1)	Insoluble	N/A	Not Available	N/A	Not available

Molecular Weight	Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
46.0	C2H3F	Not available	N/A	N/A	N/A	

Section 10: Stability and Reactivity

Stability	Conditions to Avoid	Incompatible Materials
Will polymerize with heat.	Will polymerize with heat.	Mineral-based & clay-based absorbents, dirt/earth, oxidizing materials

Hazardous Decomposition Products	Possibility of Hazardous Reactions
Toxic hydrogen fluoride gas is generated in a fire.	Will polymerize with heat.

Section 11: Toxicology Information

Acute Effects

Oral LD50	Dermal LD50	Inhalation
1600000 mg/m3/4 hour(s) inhalation-rat LC50	Not Available	Nausea, vomiting, diarrhea, headache, drowsiness, symptoms of drunkenness, visual disturbances, bluish skin color, lung congestion, nerve damage, paralysis, convulsions, coma

Eye Irritation	Skin Irritation	Sensitization
Frostbite, blurred vision	Blisters, frostbite	Central nervous system depression, difficulty breathing

Chronic Effects

Carcinogenicity	Mutagenicity	Reproductive Effects	Developmental Effects
Not Available.	Not Available	Not Available	No data

Section 12: Ecological Information

Fate and Transport

Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
Fish toxicity: Not Available	Not Available	Not Available	Not Available

Invertebrate toxicity: Not Available Algal toxicity: Not Available Phyto toxicity: Not Available Other toxicity: Not Available			
---	--	--	--

Section 13: Disposal Considerations

Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262.

Section 14: Transportation Information

U.S. DOT 49 CFR 172.101

Proper Shipping Name	ID Number	Hazard Class or Division	Packing Group	Labeling Requirements	Passenger Aircraft or Railcar Quantity Limitations	Cargo Aircraft Only Quantity Limitations	Additional Shipping Description
Vinyl fluoride, stabilized	UN1860	2.1	Not available	2.1	Forbidden	150kg	Not available

Canadian Transportation of Dangerous Goods

Shipping Name	UN Number	Class	Packing Group / Risk Group
Vinyl fluoride, stabilized	UN1860	2.1	Not available

Section 15: Regulatory Information

U.S. Regulations

CERCLA Sections	SARA 355.30	SARA 355.40
Not regulated	Not regulated	Not regulated

SARA 370.21

Acute	Chronic	Fire	Reactive	Sudden Release
Yes	Yes	Yes	Yes	Yes

SARA 372.65

Not regulated

OSHA Process Safety

Not regulated

State Regulations

CA Proposition 65

Known to cause cancer.

Canadian Regulations

WHMIS Classification

Not determined

National Inventory Status

US Inventory (TSCA)	TSCA 12b Export Notification	Canada Inventory (DSL/NDSL)
Listed on inventory.	Not listed.	Not determined.

Section 16: Other Information

NFPA Rating

HEALTH=2 FIRE=4 REACTIVITY=2

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard