

**1 Section I****\*\*\* GENERAL INFORMATION \*\*\****SynQuest Laboratories, Inc.*

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SynQuest Product # 1100-F-06  
 Chemical Name: 1,2-Dibromo-1-chloro-1-fluoroethane  
 Synonyms:  
 Chemical Family: Haloalkane CAS#: [243139-69-7]  
 Formula: C<sub>2</sub>H<sub>2</sub>Br<sub>2</sub>ClF MW: 240.30

**2 Section II****\*\*\* HAZARDOUS INGREDIENTS/IDENTITY INFORMATION \*\*\***

HAZARDOUS COMPONENTS	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
1,2-Dibromo-1-chloro-1-fluoroethane	NONE	NONE		100

**3 Section III****\*\*\* PHYSICAL & CHEMICAL CHARACTERISTICS \*\*\***

BOILING POINT: 134-136 °C @ 760mmHg EVAPORATION RATE (Butyl acetate = 1): >1  
 VAPOR PRESSURE: N/E MELTING POINT: N/E  
 VAPOR DENSITY, (AIR=1) 8.3 (Calc.)  
 SPECIFIC GRAVITY: >1.5 @ 20°C  
 SOLUBILITY IN WATER: virtually insoluble  
 APPEARANCE: Clear, colorless liquid

**4 Section IV****\*\*\* FIRE & EXPLOSION HAZARD DATA \*\*\***

FLASH POINT: Non-flammable METHOD USED: NA  
 FLAMMABLE LIMITS: LEL = NA UEL = NA  
 EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, Foam  
 SPECIAL FIRE FIGHTING PROCEDURES: A self-contained breathing apparatus and full protective clothing should be worn when fighting fires.  
 UNUSUAL FIRE & EXPLOSION HAZARDS: Toxic fumes or mists of fluoride may be produced on thermal decomposition and/or during combustion.

**5 Section V**

**\*\*\* REACTIVITY DATA \*\*\***

STABILITY (Choose one):  Unstable

Stable

CONDITIONS TO AVOID: NA

INCOMPATIBILITY (Materials to avoid): Active metals.

HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO<sub>2</sub>, HF, HBr, HCl generated during combustion

HAZARDOUS POLYMERIZATION (Choose one):  May occur

Will not occur

**6 Section VI**

**\*\*\* HEALTH HAZARD DATA \*\*\***

ROUTE(S) OF ENTRY: INHALATION? YES SKIN? YES INGESTION? YES

HEALTH HAZARDS (Acute and chronic):

To the best of our knowledge the human toxicity of this material has not been fully determined. In high concentrations the vapor may be irritating to the eyes, mucous membranes and upper respiratory tract. May cause skin irritation by defatting action. Liquid may be an eye irritant, may cause temporary corneal opacity.

CARCINOGENICITY: NTP? NO IARC MONOGRAPHS? NO OSHA REGULATED? NO

SIGN & SYMPTOMS OF EXPOSURE: Excessive exposure can cause nasal and respiratory irritation, severe cardiac arrhythmias may occur on exposure to high concentrations.

MEDICAL CONDITIONS GENERALLY AGRIVATED BY EXPOSURE: May aggravate existing heart conditions.

EMERGENCY FIRST AID PROCEDURES:

INHALATION: Remove victim to fresh air. If breathing is difficult administer oxygen. If breathing has stopped administer artificial respiration. Seek medical attention.

INGESTION: Seek medical assistance.

EYE CONTACT: Flush with water for at least 15 minutes. Obtain medical attention.

SKIN CONTACT: Remove contaminated clothing. Wipe off excess material, rinse with water, wash with soap and water and rinse for at least 15 minutes with clean water. Do not reuse clothing until it has been thoroughly decontaminated.

**7 Section VII \*\*\* PRECAUTIONS FOR SAFE HANDLING AND USE \*\*\***

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Evacuate area and wearing protective clothing soak up spill using an inert absorbent. Place absorbent material in appropriate contained for disposal.

WASTE DISPOSAL METHOD: Burn in approved incinerator in accordance with all Local, State, and Federal regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store containers in a cool, dry area out of direct sunlight. Avoid breathing vapors. Avoid skin contact.

**8 Section VIII \*\*\* CONTROL MEASURES \*\*\***

RESPIRATORY PROTECTION (SPECIFY TYPE): OSHA approved organic vapor respirator.

VENTILATION: LOCAL EXHAUST: Required  
MECHANICAL (GENERAL): Required  
SPECIAL:  
OTHER: Handle in closed system when possible.

PROTECTIVE GLOVES: Neoprene rubber or Silver Shield  
EYE PROTECTION: Safety glasses or chemical splash goggles  
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Emergency shower and eye-wash station.  
WORK/HYGENIC PRACTICES: Wash after handling.

**9 Section XI \*\*\* REGULATORY INFORMATION \*\*\***

UN# Unrestricted  
DOT SHIPPING NAME:  
LISTS:  
RCRA: Not listed  
CERCLA: Not listed  
SARA 312 HAZARD CLASS: Not listed  
SARA 313: Not listed  
WHIMS: Health (1); Flammability (0); Reactivity (0)  
TSCA: Not included on TSCA inventory, for R&D use only  
Ozone depleter; Do not allow material to evaporate into the atmosphere.

N/A = Not available  
N/E = Not established  
NA = Not applicable