



# **Material Safety Data Sheet**

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
N. C.	Corrosive to eyes and skin on contact.	

hemical Product and Company Iden	tification	
2-(Heptafluoropropoxy)tetrafluoropropionyl Fluoride		
H0847	Supplier	TCI America 9211 N. Harborgate St.
Propanoyl fluoride, 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)- (9CI)		Portland OR 1-800-423-8616
CF <sub>3</sub> (CF <sub>2</sub> ) <sub>2</sub> OC(CF <sub>3</sub> )FCOF		
2062-98-8	In case of Emergency Call	Chemtrec® (800) 424-9300 (U.S.) (703) 527-3887 (International)
	2-(Heptafluoropropoxy)te  H0847  Propanoyl fluoride, 2,3,3,3-tetrafluoro-2- (heptafluoropropoxy)- (9CI)  CF <sub>3</sub> (CF <sub>2</sub> ) <sub>2</sub> OC(CF <sub>3</sub> )FCOF	H0847  Propanoyl fluoride, 2,3,3,3-tetrafluoro-2- (heptafluoropropoxy)- (9CI)  CF <sub>3</sub> (CF <sub>2</sub> ) <sub>2</sub> OC(CF <sub>3</sub> )FCOF  In case of Emergency

Section II. Composition and Information on Ingredients					
Chemie	cal Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
2-(Heptafluoropropoxy)t	etrafluoropropionyl Fluoride	2062-98-8	Min. 96.0%(GC)	Not available.	Not available.

Section III.	Hazards Identification
Acute Health Effects	Corrosive to skin, eyes, and respiratory system. Liquid or spray mist may produce tissue damage, particularly in mucous membranes of the eyes, mouth and respiratory tract. Skin contact may produce burns. Eye contact can result in corneal damage or blindness. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Corrosive materials may cause serious injury if ingested. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.
Chronic Health Effects	CARCINOGENIC EFFECTS: Not available.  MUTAGENIC EFFECTS: Not available.  TERATOGENIC EFFECTS: Not available.  DEVELOPMENTAL TOXICITY: Not available.  Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

Section IV.	First Aid Measures
Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Inhalation	If the victim is not breathing, perform mouth-to-mouth resuscitation. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention if respiration problems do not improve.
Ingestion	DO NOT INDUCE VOMITING. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive.

Section V.	Fire and Explosion Data			
Flammability	May be combustible at high temperature.	Auto-Ignition	Not available.	
Flash Points	Not available.	Flammable Limits	Not available.	
Combustion Products		These products include toxic carbon oxides (CO,CO <sub>2</sub> ), halogenated compounds. WARNING: Highly toxic HF gas is produced during combustion.		
Fire Hazards	Not available.			
Explosion Hazards	Risks of explosion of the product in presence Risks of explosion of the product in presence			
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Consult with local fire authorities before atten		g operations.	

#### H0847 2-(Heptafluoropropoxy)tetrafluoropropionyl Fluoride Page 2

### Section VI. Accidental Release Measures

Spill Cleanup Instructions

Corrosive Material.

Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. DO NOT get water inside container. DO NOT touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all sources of ignition. Consult federal, state, and/or local authorities for assistance on disposal

### Section VII. Handling and Storage

Handling and Storage Information

CORROSIVE. Keep container dry. Keep away from heat. Mechanical exhaust required. When not in use, tightly seal the container and store in a dry, cool place. Avoid excessive heat and light. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible. Treat symptomatically and supportively.

Always store away from incompatible compounds such as oxidizing agents.

### Section VIII. Exposure Controls/Personal Protection

**Engineering Controls** 

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash station and safety shower is proximal to the work-station location.

Personal Protection

Face shield. Lab coat. Vapor respirator. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. Be sure to use a MSHA/NIOSH approved respirator or equivalent.



**Exposure Limits** Not available

Section IX. P.	hysical and Chemical P	Properties	
Physical state @ 20°C	Liquid. (Colorless.)	Solubility	Not available.
Specific Gravity	1.61 (water=1)		
Molecular Weight	332.04	Partition Coefficient	Not available.
Boiling Point	55℃ (131°F)	Vapor Pressure	Not available.
Melting Point	Not available.	Vapor Density	Not available.
Refractive Index	Not available.	Volatility	Not available.
Critical Temperature	Not available.	Odor	Not available.
Viscosity	Not available.	Taste	Not available.

#### Section X. Stability and Reactivity Data

Stability This material is stable if stored under proper conditions. (See Section VII for instructions)

Conditions of Instability Avoid excessive heat and light.

Incompatibilities Reactive with oxidizing agents.

#### Section XI. Toxicological Information

RTECS Number Not available

Eye Contact. Ingestion. Inhalation. Skin contact. Routes of Exposure

Not available. Toxicity Data

Chronic Toxic Effects CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS : Not available TERATOGENIC EFFECTS : Not available. **DEVELOPMENTAL TOXICITY**: Not available.

Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

Acute Toxic Effects

Corrosive to skin, eyes, and respiratory system. Liquid or spray mist may produce tissue damage, particularly in mucous membranes of the eyes, mouth and respiratory tract. Skin contact may produce burns. Eye contact can result in corneal damage or blindness. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Corrosive materials may cause serious injury if ingested.

Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

Continued on Next Page

Emergency phone number

# H0847 2-(Heptafluoropropoxy)tetrafluoropropionyl Fluoride Page 3

Section XII.	Ecological Information	
Ecotoxicity	Not available.	
Environmental Fate	Not available.	

### Section XIII. Disposal Considerations

Waste Disposal Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all

federal, state and local regulations when disposing of the substance.

## Section XIV. Transport Information

DOT Classification DOT Class 8: Corrosive material.

PIN Number UN3265

Proper Shipping Name Corrosive liquid, acidic, organic, n.o.s.

Packing Group (PG)

**DOT Pictograms** 



### Section XV. Other Regulatory Information and Pictograms

TSCA Chemical Inventory This compound is **ON** the EPA Toxic Substances Control Act (TSCA) inventory list.

(EPA)

WHMIS Classification CLASS E: Corrosive liquid.

(Canada) On NDSL

(Callada) Oli NBOE

EINECS Number (EEC) 218-173-8

EEC Risk Statements R34- Causes burns.

Japanese Regulatory Data Not available.

### Section XVI. Other Information

Version 1.0 Validated on 9/6/2007. Printed 9/6/2007.

### Notice to Reader

TCI laboratory chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our MSDS sheets are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated MSDS sheets for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local regulations.

Printed 9/6/2007.