

MATERIAL SAFETY DATA SHEET

Hampford Research, Inc.

SECTION 1. -----CHEMICAL PRODUCT AND COMPANY IDENTIFICATION-----

TRIFLUOROETHYL ACRYLATE

CHEMICAL FORMULA: C5 H5 F3 O2

CAS NUMBER: 407-47-6

CHEMICAL NAME: Trifluoroethyl Acrylate

REVISED: 12/12/2003

MANUFACTURER: Hampford Research, Inc
P.O. Box 1073
54 Veterans Blvd.
Stratford, CT 06615

EMERGENCY TELEPHONE NUMBERS: OFFICE (203) 375-1137
CHEMTREC (800) 424-9300

SECTION 2. -----COMPOSITION / INFORMATION ON INGREDIENTS-----

COMPONENT	CAS #	% BY WEIGHT	EXPOSURE LIMITS
Trifluoroethyl Acrylate	407-47-6	100%	

SECTION 3. -----HAZARDS IDENTIFICATION-----

EYES: Irritating to eyes.

SKIN: Irritating to the skin.

SWALLOWING: Harmful if swallowed.

INHALATION: Harmful by inhalation. Irritating to the respiratory system.

SECTION 4. -----FIRST AID MEASURES-----

EYE CONTACT:

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes. Seek medical aid immediately.

SKIN CONTACT:

In case of contact, wash skin with soap and water for at least 15 minutes. Wash contaminated clothing before reuse. Material may irritate and sensitize certain individuals on repeated exposure.

INGESTION:

If swallowed, do not induce vomiting. Drink milk or water. Seek medical aid immediately.

INHALATION:

If inhaled, remove to fresh air. Administer oxygen if subject has difficulty breathing. Seek medical aid immediately.

SECTION 5. -----FIRE FIGHTING MEASURES-----

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Exposure to fire may cause rapid polymerization and explosive rupture of storage containers.

FIRE EXTINGUISHING MEDIA:

Water spray for cooling, carbon dioxide, dry chemical powder or appropriate foam.

Revision Date: 12/12/2003

Page 1 of 4

Chemical Name: Trifluoroethyl Acrylate

Material Safety Data Sheet

SPECIAL FIREFIGHTING INSTRUCTIONS:

Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

SECTION 6. -----ACCIDENTAL RELEASE MEASURES-----

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Wear self-contained breathing apparatus, chemical safety goggles, rubber boots and heavy rubber gloves.

SPILL CLEANUP MEASURES:

Vent fumes to outside, shut off all sources of ignition and evacuate area. Absorb spill using suitable absorbent material. Dispose of absorbed material in a closed solids waste container.

SECTION 7. -----HANDLING AND STORAGE-----

HANDLING AND STORAGE REQUIREMENTS:

Store containers below 75°F out of direct sunlight. Due to possibility of polymer formation during long term storage, inhibited product should be used within six months of date of manufacture or inhibitor replenished and product aerated.

SECTION 8. -----PERSONAL PROTECTION/EXPOSURE CONTROLS-----

EYE/FACE PROTECTION: Wear safety goggles. Wear coverall chemical splash goggles and face shield when possibility exists for eye and face contact from airborne material. Eye bath available.

SKIN PROTECTION: Wear appropriate impervious clothing such as compatible chemical-resistant coveralls and gloves. Safety shower available.

RESPIRATORY PROTECTION: Wear face mask organic vapor cannister.

ENGINEERING CONTROLS: Local exhaust required.

SECTION 9. -----PHYSICAL AND CHEMICAL PROPERTIES-----

PHYSICAL STATE: Liquid

MELTING POINT: NA

BOILING POINT: 46°C @ 125mm Hg

SPECIFIC GRAVITY: 1.216

APPEARANCE: Clear, colorless liquid

ODOR: Ethereal odor

OTHER: Solubility in water: insoluble, flash point 12 C

SECTION 10. -----STABILITY AND REACTIVITY-----

INCOMPATIBILITIES:

Avoid metals, strong oxidizers and free radical initiators.

HAZARDOUS DECOMPOSITION:

Burning will produce noxious fumes, oxides of carbon and possible HF.

CHEMICAL STABILITY:

Stable at ambient temperatures.

Material Safety Data Sheet

HAZARDOUS POLYMERIZATION:

Polymerization may occur if containers are exposed to prolonged or excessive heat.

SECTION 11. -----TOXICOLOGICAL INFORMATION-----

TOXICOLOGICAL EFFECTS:

Toxicity: Oral LD50 (rat) = 349 mg/kg (toxic); HMIS/NFPA CODE: Health = 2; Flammability = 3; Reactivity = 2

SECTION 12. -----ECOLOGICAL INFORMATION-----

ECOLOGICAL EFFECTS:

Data not yet available.

SECTION 13. -----DISPOSAL INFORMATION-----

WASTE MANAGEMENT PROCEDURES:

Dispose of waste material in an approved chemical incineration facility. Any disposal method must comply with all Federal, State and Local environmental regulations.

SECTION 14. -----TRANSPORT INFORMATION-----

TRANSPORTATION INFORMATION:

Contact Hampford Research, Inc. for transportation information.

-----DOT (DOMESTIC SURFACE)-----

PROPER SHIPPING NAME: Esters, n.o.s. (Trifluoroethyl Acrylate)
HAZARD CLASS OR DIVISION: 3
UN / NA NUMBER: UN 3272
PACKING GROUP: II
DOT PRODUCT RQ lbs (kgs): 1,000 lbs
HAZARD LABEL (s): Flammable liquid
HAZARD PLACARD (s): Flammable liquid if more than 1,000 lbs

-----IMO / IMDG CODE (OCEAN)-----

PROPER SHIPPING NAME: Esters, n.o.s. (Trifluoroethyl Acrylate)
HAZARD CLASS DIVISION NUMBER: 3
UN NUMBER: UN 3272
PACKAGING GROUP: II
HAZARD LABEL (s): Flammable liquid
HAZARD PACKARD (s): Flammable liquid

-----ICAO / IATA (AIR)-----

PROPER SHIPPING NAME: Esters, n.o.s. (Trifluoroethyl Acrylate)

Material Safety Data Sheet

HAZARD CLASS DIVISION NUMBER: 3
UN NUMBER: UN 3272
SUBSIDIARY RISK: None
PACKING GROUP: II
HAZARD LABEL (s): Flammable liquid
RADIOACTIVE?: No
PASSENGER AIR - MAX QTY: 5 I
PASSENGER PACKING INSTRUCTION: 305
CARGO AIR - MAX QTY: 60 I
CARGO AIR PACKAGING INSTRUCTION: 307 Limited quantity 1 I y305

SECTION 15. -----REGULATORY INFORMATION-----

REGULATORY INFORMATION:

On TSCA Inventory
January 2001 Inventory Tape.
On NDSL
Canada Gazette, Part I, January 31, 1998.
On EINECS
Annex to Official Journal of the European Communities, 15 June 1990.
European information:
Highly flammable
Harmful
R 1
Highly flammable
R 20/21/22
Harmful by inhalation, in contact with skin and if swallowed.
R 36/37/38
Irritating to eyes, respiratory system and skin.
S 16
Keep away from sources of ignition - no smoking.
S 33
Take precautionary measures against static discharges.
S 26
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 36/37/39
Wear suitable protective clothing, gloves and eye/face protection.

SECTION 16. -----ADDITIONAL INFORMATION-----

ADDITIONAL INFORMATION:

NA

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. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Hampford Research, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. Hampford Research grants permission to make unlimited paper copies for internal use only.