

# ETI 73DE

## SAFETY DATA SHEET

PREPARATION DATE: September 1, 2024

### 1. Product and Company Identification

**Product Name:** *ETI 73DE* Fluorinated Solvent Mixture  
**Identified uses:** Cleaning of oils, greases, waxes. **INDUSTRIAL USE ONLY. NOT FOR CONSUMER SALE OR USE.**  
**Supplier:** Enviro Tech International, Inc.  
1800 N 25<sup>th</sup> Avenue  
Melrose Park, IL 60160 708-343-6641  
www.envirotechint.com  
**Contact Person:** sales@envirotechint.com  
**Emergency Contact:** Velocity EHS 24-HR EMERGENCY CONTACT U.S, Canada, Puerto Rico, U.S. Virgin Islands (800) 255-3924  
INTERNATIONAL CALLS: +01-813-248-0585  
Non emergency number: 708-343-6641 8 AM to 4 pm (CST - US)

### 2. HAZARD IDENTIFICATION

**ETI 73DE Mixture:**

**Signal Word:** Warning

**Classification:**

Serious Eye Damage/Irritation:

Specific Target Organ Toxicity (single exposure):

**Hazard Statements**

Causes eye irritation.

May cause drowsiness or dizziness

May be harmful if swallowed

Category 2B.

Category 3.



#### Further Information on Individual Constituents

##### 1,2 trans-dichloroethylene

**Classification**

Acute Toxicity - Oral

Category 4

Acute Toxicity – Inhalation

Category 4

Skin Corrosion/Irritation

Category 2

Eye Damage/Irritation

Category 2A

Specific Target Organ Toxicity (Single Exposure)

Category 1

Specific Target Organ Toxicity (Single Exposure)

Category 2

Specific Target Organ Toxicity (Single Exposure)

Category 3

Flammable Liquids

Category 2

Aquatic Hazard (Acute)

Category 3

Aquatic Hazard (Long-Term)

Category 3

Aspiration Hazard

Category 1

##### 1,1,1,2,2,3,4,5,5,5-Decafluoro-3-methoxy-4-(trifluoromethyl) pentane

**Classification:**

Acute Toxicity (oral)

Category 5

Hazard Statements:

May be harmful if swallowed

**ETI 73DE Mixture:**

**Prevention:**

- P103 Read label before use.
- P102 Keep out of reach of children.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat/sparks/open flames/hot surfaces – no smoking.
- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment
- P241 Use explosion-proof electrical/ventilating/lighting/.../equipment
- P242 Use only non-sparking tools
- P243 Take precautionary measures against static discharge.
- P261 Avoid breathing vapors
- P262 Do not get in eyes, on skin or clothing
- P270 Do not eat, drink or smoke when using this product
- P271 Use only outdoors or in a well-ventilated area
- P273 Avoid release to the environment
- P280 Wear protective gloves/eye protection/face protection
- P281 Use personal protective equipment as required.
- P282 Wear Viton or Silvershield gloves.

**Response:**

- P301 + P310 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P303 +P361+ P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P304 + P340+P312 If INHALED Remove person to fresh air keep comfortable for breathing. Call a POISON CENTER/doctor/if you feel unwell.
- P331 Do NOT induce vomiting.
- P370+378 In case of fire: Use Dry Chemical Extinguisher (B-C), Water Spray, Carbon Dioxide or appropriate foam to extinguish.

**Storage & Disposal:**

- P403+P235 Store in a well-ventilated place. Keep Cool.
- P405 Store locked up
- P501 Dispose of contents/containers in accordance with all local/regional/national/international regulations.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

<b>INGREDIENT</b>	<b>CAS</b>	<b>WEIGHT PERCENT</b>
trans-1,2-dichloroethylene	CAS: 156-60-5	≥ 60 %
1,1,1,2,2,3,4,5,5,5-Decafluoro-3-methoxy-4-(trifluoromethyl)pentane	CAS: 132182-92-4	< 40 %

The exact percentage (concentration) of this composition has been withheld as a trade secret.

#### 4. FIRST AID MEASURES

- Inhalation:** Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.
- Ingestion:** Gently wipe or rinse the inside of the mouth with water. Sips of water may be given if person is fully conscious. Never give anything by mouth to an unconscious or convulsing person. Do not induce vomiting. Contact a poison control center, emergency room or physician right away as further treatment will be necessary.
- Skin Contact:** Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.
- Eye Contact:** Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.
- Notes to Physician:** Do not give adrenaline or similar drugs. Because of possible disturbances of cardiac rhythm, catecholamine drugs, such as epinephrine, that may be used in situations of emergency life support should be used with special caution.

#### 5. FIRE FIGHTING MEASURES

- Flash point (°F):** None
- Extinguishing Media:** Extinguishing media should be chosen based on surrounding conditions. Dry Chemical Extinguisher (B-C), Water Foam Carbon Dioxide or appropriate foam may be used.
- Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire
- Fire and Explosion Hazards:** Non-flammable in most situations. Vapor/air mixtures may be explosive.
- Hazardous combustion products:** Thermal decomposition or combustion may liberate hydrogen chloride, chlorinated hydrocarbons, carbonyl chloride, hydrogen fluoride (HF), carbon monoxide and carbon dioxide.
- Special Fire Fighting Procedures:** Emits toxic fumes under fire conditions. Vapor concentration in a confined or poorly ventilated area can be ignited upon contact with a high energy spark, flame, or high intensity source of heat if vapor/air ratio is within flammable limit range. Evacuate personnel to a safe area and isolate the scene of the accident. Remove all ignition sources. Put out the fire upwind. Appropriate protective equipment (including chemical protective gloves) should be worn for special equipment of firefighters. Wear chemical protective clothing if there is a risk of extensive contact with spilled products. When the fire-fighting conditions are bad and the product may undergo thermal decomposition,

firefighters must wear self-contained positive pressure breathing apparatus and choose firefighting clothing that meets relevant standards when they need to enter the confined space where the fire occurs. If the container in the fire is discolored or sounds from the safety relief device, it must be evacuated immediately. Keep run-off water out of sewers and water sources. Dike for water control.

**Protective Equipment:**

Use NIOSH/MSHA approved/equivalent self-contained breathing apparatus in positive pressure mode and full protective clothing must be worn in case of fire. Use water spray or fog to cool exposed equipment and containers.

**Further information:**

Remove container from danger zone if possible and able to be completed safely. Cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions**

Wear protective clothing as described in Section 8 of this safety data sheet. Do not breathe vapors. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

**Environmental Precautions**

Do not discharge or let enter into drains, water courses or onto the ground. Contain spillages with sand, earth or any suitable adsorbent material.

**Spill Clean Up Methods**

Immediately evacuate the area. Provide maximum ventilation. Unprotected personnel should move upwind of spill. Only personnel equipped with proper respiratory and eye/skin protection should be permitted in the area. Dike area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material with absorbents, such as sawdust or vermiculite, and sweep into closed containers for disposal. After all visible traces have been removed, thoroughly wet vacuum the area. Do not flush to sewer. If area of spill is porous, remove as much earth and gravel, etc. as necessary and place in closed containers for disposal. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ for 1,2 trans-dichloroethylene (U.S. SARA Section 304). If reportable release occurs under CERCLA Section 103, notify the National Response Center.

**Reference to other sections**

For personal protection, see section 8. For waste disposal, see Section 13

## 7. HANDLING AND STORAGE

<b>Handling</b>	Do not inhale substance/mixture. Avoid generation of vapors. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.). Do not use cutting or welding torches on drums that contained this product. Do not use in poorly ventilated or confined spaces without proper respiratory protection. Keep away from open flames, hot surfaces and sources of ignition. Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.
<b>Storage</b>	Keep container closed when not in use. Store only in closed, properly labeled containers. Separate from oxidizing agents and strong bases. Avoid exposure to the sun. Store at temperatures not exceeding 38C/100F.

## 8. EXPOSURE CONTROL AND PERSONAL PROTECTION

<b>Exposure Limits:</b>	<b>1,2 trans-dichloroethylene</b> OSHA: 200 ppm (790 mg/m <sup>3</sup> ) OSHA TWA ACGIH: 200 ppm TWA. (1, 2-trans-Dichloroethylene) <b>1,1,1,2,2,3,4,5,5,5-Decafluoro-3-methoxy-4-(trifluoromethyl) pentane</b> MFR WEL 100 ppm No OSHA PEL or ACGIH TLV has been published for this product.
<b>Process Conditions</b>	Provide eyewash, quick drench.
<b>Engineering Measures</b>	Provide adequate general and local exhaust ventilation.
<b>Respiratory Equipment</b>	NIOSH/MSHA approved/equivalent organic vapor respirator. should be provided. Check that mask fits tight and change filter regularly.
<b>Hand Protection</b>	Wear approved gloves when handling this product. Use Viton or Silvershield gloves for extended protection. Nitrile, neoprene or butyl gloves offer less protection and should be used only for splash protection. <b>DO NOT</b> use natural rubber, cloth or synthetic material gloves when handling this product.
<b>Eye Protection</b>	Required. Wear approved safety goggles with side shields. Use face shield where possibility of face contact due to splashing, spraying or other airborne contact exists.
<b>Hygiene Measures</b>	When using do not eat, drink or smoke. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap & water if skin becomes contaminated.
<b>Engineering Controls</b>	Safety shower, eye wash stations, ventilation systems.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless liquid.
Odor:	Characteristic
pH Value:	Not applicable.
Freezing Point:	No data available
Boiling Point:	47.6 °C

Flash Point (Closed Cup):	None (ASTM Method D96)
Lower Flammability Limit:	7.5%
Upper Flammability Limit:	15%
Evaporation Rate:	No data available
Vapor Pressure:	263 mmHg @ 68 °F
Vapor Density:	No data available
Density:	No data available
Specific Gravity:	1.29
Specific Heat:	No data available
Auto-ignition temperature:	No data available
Thermal Conductivity:	No data available
Dielectric Strength:	No data available
Dielectric Constant:	No data available

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under normal temperature conditions and recommended use. No decomposition if stored and applied as directed.
<b>Reactivity:</b>	Vapors may form explosive mixture with air.
<b>Conditions To Avoid</b>	Avoid open flames and other sources of ignition. Avoid high temperatures.
<b>Incompatible Materials</b>	Incompatible with strong acids, strong bases and strong oxidizing agents.
<b>Hazardous Decomposition Products</b>	Carbon monoxide; Carbon dioxide, Hydrogen fluoride, Perfluoroisobutylene; Hydrogen chloride gas.

## 11. TOXICOLOGICAL INFORMATION

### 1,2 trans-dichloroethylene

Acute Inhalation L <sub>C</sub> 50:	(rat) 24,100 ppm (4 hours). Slight to very low toxicity.
Acute Dermal L <sub>D</sub> 50:	(rabbit) >5000 mg/kg. Slight to very low toxicity.
Skin Irritation:	Mildly to moderately irritating.
Eye Irritation:	Moderately to severely irritating.
Acute Oral L <sub>D</sub> 50:	Slight to very low toxicity.
Chronic Effects/Carcinogenicity:	NOT listed as a carcinogen by NTP, IARC, or OSHA.
Medical Conditions Aggravated:	None known.

### Carcinogenicity:

NTP	No	IARC	No	OSHA	No
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### Effects of overexposure:

#### ACUTE

**Inhalation:** This product is a central nervous system depressant. Inhalation can cause irritation of the respiratory tract, dizziness nausea, headache,

loss of coordination and equilibrium, unconsciousness and even death in confined or poorly ventilated areas. Cardiac sensitization has occurred in dogs dosed at concentrations greater than 25%.

**Eye/Skin:**

Eye contact can result in discomfort, pain, irritation and discharge. Washing of the eyes with water may result in corneal injury. Prolonged contact such as occurs when material is trapped on the skin (e.g. under a glove) may result in severe irritation. Skin absorption is not expected to be of toxicological significance under normal industrial use.

**Ingestion:**

Swallowing may irritate the mouth and GI tract as well as cause the effects listed for inhalation exposure. Vomiting may cause aspiration into the lungs that may lead to potentially fatal chemical pneumonia and pulmonary edema.

**SUBCHRONIC**

A 90-day inhalation study exposing rats to 1,2-dichloroethylene reported no adverse effects on body weight, clinical observations, food consumption, clinical or anatomical pathology parameters, or liver cell proliferation. The no - observed-effect level (NOEL) for this study was 4000 ppm in rats that suggests a low order of toxicity by the inhalation. In an NTP study, rats and mice were dose fed for a period of 13 weeks. No mortality, clinical observations of toxicity, or food consumption effects was noted in mice or rats. Minor reductions in body weights were observed in mice. Liver organ weights changes were reported in rats. Rats dosed at the highest level (50,000 ppm) showed a few abnormal clinical pathology findings. Histopathology reports revealed no microscopic evidence of treatment-related target organ effects. In separate 90-day drinking water studies, 1,2-dichloroethylene exposed rats and mice showed no does related effects in hematological, serological, and gross pathological, or urinary parameters.

Mutagenesis: Trans-1,2-dichloroethylene was not mutagenic to E-coli or S. Typhimurium when tested with microsomal activation. In another study, trans-1,2-dichloroethylene did not product mutations in Saccharomyces cerevisiae with or without microsomal activation. No genetic effects were reported in a vivo host mediated mutagenic assay.

Reproductive/Developmental: In a teratology study conducted in rats by the inhalation route of exposure, significant fetal toxicity (i.e., decreased body weight, increased skeletal variations) was observed only at maternally toxic concentrations (12,000 ppm). Based on the results of this study, trans-1,2-dichloroethylene would not be considered to be a developmental toxicant.

**1,1,1,2,2,3,4,5,5,5-Decafluoro-3-methoxy-4-(trifluoromethyl) pentane**

**Carcinogenicity:**

**NTP: No Listed**

**IARC: Not Listed**

**OSHA: Not Listed**

Acute inhalation toxicity LC <sub>50</sub> (4 h)	>20,000 mg/l <sup>-1</sup>
Acute ingestion toxicity LD <sub>50</sub>	> 2,000 mg/l
Acute dermal toxicity LD <sub>50</sub>	> 2,000 mg/l
Skin Corrosion/Irritation:	None (rabbit)
Serious Eye Damage/Eye Irritation:	None (rabbit)
Respiratory Tract Sensitization:	No Data
Skin Sensitization:	Not classified
Germ Cell Mutagenicity:	Negative
Reproductive/Developmental Effects:	Not classified
Specific target organ system toxicity:	Not classified
Aspiration Hazard:	Not Classified

## 12. ECOLOGICAL INFORMATION

### 1,2 trans-dichloroethylene

**INVERTEBRATE TOXICITY:** <110,000 ug/L 48 hour(s) (Mortality) Water flea (Daphnia magna)

### 1,1,1,2,2,3,4,5,5,5-Decafluoro-3-methoxy-4-(trifluoromethyl) pentane

Ecotoxicity:	Not acutely/chronically toxic to aquatic life by GHS criteria.
Persistence and Degradability:	No reference data are known or current data are insufficient for classification.
Potential Bioaccumulation:	No reference data are known or current data are insufficient for classification.
Mobility in Soil:	No reference data are known or current data are insufficient for classification.
Life cycle of environmental impacts:	No reference data are known or current data are insufficient for classification.

## 13. DISPOSAL CONSIDERATIONS

**Disposal** Follow Federal, State and Local governmental regulations. DO NOT flush into sanitary sewer or waterway. Do not reuse empty container. Dispose of waste in licensed industrial waste disposal facilities or by incineration in a licensed waste incineration facility. Proper destruction may use additional fuel in the incineration process. Combustion products include HF. Equipment must be capable of handling halogenated materials. Contaminated sand, sawdust, vermiculite, soil or porous surface must be disposed of in a permitted hazardous waste management facility. Recovered liquids may be reprocessed or incinerated or must be treated in a permitted hazardous waste management facility. Care must be taken when using or disposing of chemical materials and/or their containers to prevent environmental contamination. It is your duty to dispose of the chemical materials and/or their containers in accordance with the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, as well as any other relevant Federal, State, or local laws/regulations regarding disposal.

## 14. TRANSPORTATION INFORMATION

**US DOT PROPER SHIPPING NAME :** Not regulated for shipping pursuant to DOT, IATA and IMDG regulations.

The above transportation information is valid as of the date of publication of this SDS. Given that regulatory changes are made on an ongoing basis, ETI recommends checking new transportation regulations regularly.

## 15. REGULATORY INFORMATION

<b>USA TSCA:</b>	All components of this product are listed and active on the TSCA Inventory. This material contains a chemical which requires export notification under TSCA Section 12[b]: 1,2-Trans-Dichloroethylene CAS: 156-60-5
<b>SARA 302:</b>	None
<b>SARA (311, 312) Hazard Class:</b>	1,2 trans-dichloroethylene: Acute Health Hazard.
<b>SARA (313) Chemicals:</b>	Not listed
<b>SARA Extremely Hazardous Substance:</b>	Not listed
<b>CERCLA Hazardous Substance:</b>	1,2 trans-dichloroethylene: Listed in 40 CFR 302 (302.4) as a hazardous substance with a reportable quantity (RQ) of 1,000 pounds. Releases which exceed the RQ must be reported to the National Response Center, 800-424-8802.
<b>RCRA:</b>	1,2 trans-dichloroethylene: Waste product and contaminated soils/materials from spill cleanup are U079 hazardous waste as per 40 CFR 261.33 and must be disposed of accordingly under RCRA. If discarded or spilled product may exhibit one or more hazardous waste characteristics under 40 CFR 261.24, including D001 – ignitable.
<b>HAP:</b>	No component listed
<b>USEPA SNAP:</b>	All components approved.
<b>Right to Know:</b>	1,2 trans-dichloroethylene: Massachusetts, Pennsylvania, New Jersey

## 16. OTHER INFORMATION

Only trained personnel should use this material. Since empty containers retain product residue, follow label warnings, even after container is emptied. For further Health and Safety information contact: Health and Safety Officer. Each user of this product should study this SDS carefully and consult appropriate expertise as necessary to become aware of and understand the data contained in this SDS and any hazards that may be associated with this product. The information provided in this Safety Data Sheet relates only to the specific material designated herein. The user is responsible for determining the conditions of safe use of this product and for complying with all Federal, State and Local governmental laws and regulations concerning its use. Enviro Tech International, Inc. makes no warranty, express or implied, including the warranty of merchantability and fitness for a particular purpose, and assumes no liability or responsibility for the accuracy, completeness, timeliness or usefulness of this information. Enviro Tech International, Inc assumes no liability for any damages incurred, whether directly or indirectly, as a result of any errors, omissions or discrepancies in this information. Enviro Tech International, Inc. assumes no liability for reliance on this data and assumes no liability for damages related to the use or misuse of this product.

NFPA Rating:	Health: 2	Flammability: 1	Instability: 0
HMIS Classification:	Health: 2	Flammability: 1	Physical: 0

PREPARATION DATE: September 1, 2024  
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