Safety Data Sheet

Chemicals name:	Engineered Fluid PFE-50	**Version:**	7.0
Issue Date:	2026/08/01	**Previous Date:**	2026/03/01
Editor:	Vivian Zhang	**Approved by:**	Wayne Fan
Revision information:	Update of Section 1 and 9		

SECTION 1: Chemical and manufacturer data

1.1. Product identifier
Engineered Fluid PFE-50

1.2. Name, address and telephone number of manufacturer, importer or supplier
Manufacturer: Zhangzhou Xipu Material Technology Co.,Ltd.
Address: 166 Xialin Road, Gulei Town, Guleigang Economic Development Zone, Zhangzhou City, Fujian Province
Telephone: +86 131 2067 1660

1.3. Emergency contact number/fax number/email address
Emergency contact number: +86 131 2067 1660
Fax number: +86 21-50352129
Email address: Sales@sipromaterial.com

1.4. Recommended use and restrictions on use
For Industrial Use Only.
Not Intended for Use as a Medical Device or Drug. Not intended for any food contact use.
Please contact for further information.

SECTION 2: Hazards identification

2.1. Hazard classification
Not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

2.2. Label Elements
Signal word:
Not applicable.

Symbols:
Not applicable.

Pictograms:
Not applicable.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-trifluoromethyl-hexane	297730-93-9	100

SECTION 4: First aid measures

4.1. Description of First Aid Measures
Inhalation:
No need for first aid.

Skin contact:
No need for first aid.

Eye contact:
No need for first aid.

If Swallowed:
No need for first aid.

4.2. Most Important Symptoms/Effects, Acute and Delayed.
No critical symptoms or effects.

4.3. Indication of Immediate Medical Attention and Special Treatment Needed
Not applicable.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
Use a firefighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture
Exposure to extreme heat can result in thermal decomposition.

5.3. Hazardous Decomposition or By-Products
Carbon monoxide, carbon dioxide and hydrogen fluoride are expected to be the deposition products during the combustion at elevated temperature.

5.4. Special Protective Equipment and Precautions for Fire-fighters
If in case a fire happens, wear full protective clothing, including helmet, positive pressure or pressure demand breathing apparatus, special coat and pants to cover arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures
Ventilate the area with fresh air. Evacuate if needed.

6.2. Environmental Precautions
Avoid release to the environment.

6.3. Methods and Materials for Containment and Cleaning Up
Working from the edges of the spill inward, cover with commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Place in a closed container approved by appropriate authorities. Dispose of collected material as soon as possible in accordance with applicable regulations.

SECTION 7: Handling and storage

7.1. Precautions for Safe Handling
For industrial use only. Do not breathe thermal decomposition products. Avoid release to the environment. Avoid contact with oxidizing agents. No eating and smoking when handling the product.

7.2. Conditions for safe storage including any incompatibilities
Store away from strong bases. Store away from oxidizing agents. Store in a tightly closed original container. Recommended storage temperature range is -40°C to 60°C. Avoid exposure to extreme high or low temperatures to ensure product stability and packaging integrity.

SECTION 8: Exposure controls/personal protection

8.1. Control Parameters
Occupational exposure limits

Ingredient	C.A.S. No.	Limit type*
3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-trifluoromethyl-hexane	297730-93-9	TWA:100 ppm

Manufacturer determined
TWA: Time-Weighted-Average

8.2. Exposure controls
8.2.1. Engineering Controls
For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use with appropriate local exhaust ventilation sufficient to maintain levels of thermal decomposition products below their exposure guidelines.

8.2.2. Personal protective equipment (PPE)
Eye/face protection
None required.

Hands/ Skin protection
Chemical protective gloves are not required under normal use conditions. However, when the product is subjected to extreme heat, HF may be formed. For those cases, neoprene gloves and apron are recommended.

Respiratory protection
For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use a positive pressure supplied air respirator.

SECTION 9: Physical and chemical properties

9.1.Information on basic physical and chemical propertie

Appearance	
Physical state	Liquid
Color	Colorless
Odor	Odorless
Odor threshold	No Data Available
pH	Not Applicable
Melting point	-100 ºC
Boiling Point	127-129 ºC
Flash Point	No Flash Point
Evaporation rate	No Data Available

Flammability (solid, gas)	Not Applicable
Flammable Limits (LEL)	No Data Available
Flammable Limits (UEL)	No Data Available
Vapor Pressure	2.1 kPa @25°C
Vapor Density	No Data Available
Density	1.62 g/ml [@ 20 ºC]
Solubility in Water	No Data Available
Solubility- non-water	No Data Available
Partition coefficient: n-octanol/ water	No Data Available
Autoignition temperature	330 ºC
Decomposition temperature	No Data Available
Viscosity	1.3 cP at 25 ºC
Average Molecular weight	414 g/mole
Volatile Organic Compounds	Exempt
Percent volatile	100%
VOC Less H2O & Exempt Solvents	Exempt

SECTION 10: Stability and reactivity

10.1. Reactivity
This material may be reactive with strong acids, strong bases, and strong oxidizers under certain conditions.

10.2. Chemical Stability
Stable.

10.3. Possibility of Hazardous Reactions
Hazardous polymerization will not occur.

10.4. Conditions to Avoid
Flames.

10.5. Incompatible Materials
Strong bases.

10.6. Hazardous Decomposition products
Carbon monoxide, carbon dioxide and hydrogen fluoride are the possible decomposition products during the combustion at elevated temperatures

If the product is exposed to extreme condition of heat from misuse or equipment failure, toxic decomposition products that include hydrogen fluoride and perfluoroisobutylene can occur.

SECTION 11: Toxicological information

11.1. Information on Toxicological effects
Signs and Symptoms of Exposure
Based on data and information on the components, this material may produce the following health effects:

Inhalation:
No known health effects.

Skin Contact:
No significant irritation.

Eye Contact:
No significant irritation.

Ingestion:
No known health effects.

Toxicological Data:
Not classified as hazardous. Please contact the address or phone number listed on the first page for detail information.

Please contact Zhangzhou Xipu Material at the address or phone number listed on the first page of this SDS for additional information on this material.

SECTION 12: Ecological information

12.1. Ecotoxicological information

Ecotoxicity	No data available
Persistence and degradability	This material may be persistence
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT and vPvB assessment	No data available
Other adverse effects	No known effects

Please contact Zhangzhou Xipu Materials for additional information.

SECTION 13: Disposal considerations

Dispose of the product in accordance with the local and national regulations. Consult local authorities and regulations to ensure proper classification. Dispose of waste product in a permitted industrial waste facility. Combustion products will include HF. Facility must be capable of handling HF. Empty and clean product containers may be disposed as non-hazardous waste. Consult your local regulations and service providers to determine available options and requirements.

SECTION 14: Transport Information

Not regulated per, IATA, IMO, or U.S. DOT.

For Transport Information, please Contact Zhangzhou Xipu Materials for more information.

SECTION 15: Regulatory information

15.1. Chemical Inventories
The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Contact A.D Dawning for additional information.

The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Contact Zhangzhou Xipu for other international chemical inventories.

15.2. International Regulations
The components of this product are in compliance with the requirements of AwSV:
TEP（0～4）：WGK 1

Contact Zhangzhou Xipu for more information.

SECTION 16: Other information

16.1.Revision date
2026/07/29

16.2.Previous Date
2026/03/01

16.3.According to criteria
UN "Globally Harmonized System of Classification and Labelling of Chemicals" (Rev.9)

16.4.Disclaimer
This Safety Data Sheet (SDS) is revised by Zhangzhou Xipu Material Technology Co., Ltd. and issued on August 1, 2026. The Previous version was created on March 1, 2026.The information in this Safety Data Sheet (SDS) is prepared as accurate as possible based on our knowledge of the date issued. Users of SDS should judge the applicability of relevant information according to the actual situation.