



Material Safety Data Sheet

TEI-4 Perfluorobutyl Ethyl Iodide

Revised 03- November-2009

1. PRODUCT AND COMPANY IDENTIFICATION

Material Identification:

Product name: TEI-4
Chemical name: Perfluorobutyl ethyl iodide;
1H,1H,2H,2H-Nonafluorohexyl-1-iodide
Chemical formula: $\text{ICH}_2\text{CH}_2(\text{CF}_2\text{CF}_2)_2\text{F}$
 $\text{C}_6\text{H}_4\text{F}_9\text{I}$

Company Identification:

Distributor Top Fluorochem Co., Ltd.
Building C2, 3rd Floor
479 Chun Dong Road
XinZhuang Industrial Park
Minhang District
Shanghai, P. R. China 201108

Manufacturer Fuxin Hengtong Fluorine Chemicals Co., Ltd.
Fuxin Chemicals Community
West Pingan St.
Haizhou District
Fuxin City, Liaoning Province, P. R. China

Emergency Call +86-21-54833399

2. COMPOSITION AND INFORMATION ON COMPONENTS

Material	EINECS #	CAS #
Perfluorobutyl ethyl iodide	218-055-6	2043-55-2

3. HAZARDS IDENTIFICATION

Emergency Overview: Flammable (flash point = 58.5 °C)
Irritant.
Irritating to eyes, respiratory system and skin.

HMIS Rating: HEALTH: 2
FLAMMABILITY: 1
REACTIVITY: 0

NFPA Rating: HEALTH: 2
FLAMMABILITY: 1
REACTIVITY: 0

Carcinogenicity Information:

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

For additional information on toxicity, please refer to Section 11.

4. FIRST AID MEASURES

Oral Exposure: If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Skin Contact: In case of contact, immediately wash skin with soap and copious amounts of water.

Eye Contact: In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

5. FIRE FIGHTING MEASURES

Flammable Properties

Flash point: 58.5 °C (closed cup). Flammable.

Autoignition temperature: N/A

Flammability: N/A

Extinguishing Media: Water spray, carbon dioxide, dry chemical powder, or appropriate foam.

Fire-Fighting: Protective equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific hazard(s): Emits toxic fumes under fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Personal Protection: Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Methods for Clean-Up: Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

Safe Handling: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage: Store at 2 – 8 °C

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls: Mechanical exhaust required. Safety shower and eye bath.

Exposure Limit Values:	None listed.
Personal Protective Equipment:	
Respiratory:	Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.
Eye/face protection:	Wear safety glasses or coverall chemical splash goggles. Wear NIOSH approved respiratory protection.
Hand protection:	Wear impervious gloves. Wash hands thoroughly after handling.
Skin and body protection:	Wear lightweight protective clothing. Avoid contact with skin and eyes. Wash hands immediately after handling the product.
General Hygiene Measures:	Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point	139 °C at 760 mm Hg
Melting Point	-14 °C
Flash Point	58.5 °C (closed cup)
Molecular Weight	373.99 g/mol
Density	1.940 g/mL at 25 °C
pH	Acidic
Form	Liquid, clear
Color	Light pink; turns red on exposure to light
Refractive Index	1.3642 @ 25 °C
Solubility in Water	Negligible

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable
Conditions to Avoid:	Heat.
Hazardous Decomposition Products:	Carbon monoxide, carbon dioxide, hydrogen iodide, hydrogen fluoride.
Materials to Avoid:	Not determined.
Hazardous Polymerization:	Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Route of Exposure	
Skin contact:	Causes skin irritation.
Skin absorption:	May be harmful if absorbed through the skin.
Eye contact:	Causes eye irritation.
Inhalation:	May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.
Ingestion:	May be harmful if swallowed.

Signs and Symptoms of Exposure:

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL EFFECT**Ecological:**

No data available.

General:

Take care to prevent chemicals from entering the ground, water courses or drainage systems.

13. DISPOSAL CONSIDERATIONS**Waste Treatment:**

Storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

14. TRANSPORTATION INFORMATION**Mode**

DOT/IMDG/IATA

UN Number

UN1993

Class (Subsidiary)

3

Proper Shipping Name

Flammable Liquid, n.o.s.

Hazard Label (Subsidiary)

Flammable Liquid

Packing Group

III

Shipping Hazard Label:**15. REGULATORY INFORMATION****EU Additional Classification****Symbol of danger:**

(irritant)

Indication of danger:

Flammable. Irritant.

R:

36/37/38

Risk statements:

Irritating to eyes, respiratory system and skin.

S:

26

Safety statements:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

US Classification and Label Text**Indication of danger:**

Flammable. Irritant.

Risk statements:

Irritating to eyes, respiratory system and skin.

Safety statements:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

United States Regulatory Information**Sara Listed:**

No

Canada Regulatory Information**WHMIS classification:**

This product has been classified in accordance with

DSL:
NDSL:

the hazard criteria of the CPR, and the MSDS
contains all the information required by the CPR.
No
Yes

16. OTHER INFORMATION

Legal Disclaimer:

For R&D use only. Not for drug, household, or other uses. The previous information is based upon our current knowledge and experience of our product and is not exhaustive. It applies to the product as defined by the specifications. In case of combinations or mixtures, one must confirm that no new hazards are likely to exist. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and integrity of the work environment. Unless noted to the contrary, the technical information applies only to pure product.

To our actual knowledge, the information contained herein is accurate as of the date of this document. However, neither Top Fluorochem, nor any of its affiliates makes any warranty, express or implied, or accepts any liability in connection with this information or its use. This information is for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This is not a license under any patent or other proprietary right. The user alone must finally determine suitability of any information or material for any contemplated use, the manner of use and whether any patents are infringed. This information gives typical properties only and is not to be used for specification purposes.

End of MSDS