

## SAFETY DATA SHEET

Revision Date 09/04/2024

### 1. PRODUCT AND COMPANY IDENTIFICATION

- 1.1 Product identifiers**  
 Product name : TFFH  
 Product Number : RT8592  
 Brand : Advanced ChemTech  
 CAS-No. : 164298-23-1
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**  
 Identified uses : Laboratory chemicals, Manufacture of substances
- 1.3 Details of the supplier of the safety data sheet**  
 Company : Advanced ChemTech  
 5609 Fern Valley Rd, Louisville, KY 40228 USA  
 Telephone : +1 833-317-5620  
 Fax : +1 502-968-1000
- 1.4 Emergency telephone number** : +1 800-424-9300 Chemtrec

### 2. HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture:**  
 GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)  
 Skin irritation (Category 2), H315  
 Serious eye damage (Category 1), H318  
 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335  
 For the full text of the H-Statements mentioned in this Section, see Section 16.
- 2.2 GHS Label elements, including precautionary statements:**



- |   |   |
|---|---|
| Pictogram<br>Signal Word<br>Hazard Statements<br>H315<br>H318<br>H335<br>Precautionary Statements<br>P261<br>P264<br>P271<br>P280<br>P302 + P352<br>P304 + P340 + P312<br>P305 + P351 + P338 + P310<br>P332 + P313<br>P403 + P233<br>P405<br>P501 | Danger<br><br>Causes skin irritation.<br>Causes serious eye damage.<br>May cause respiratory irritation.<br><br>Avoid breathing dust.<br>Wash skin thoroughly after handling.<br>Use only outdoors or in a well-ventilated area.<br>Wear protective gloves/ eye protection/ face protection.<br>IF ON SKIN: Wash with plenty of soap and water.<br>IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.<br>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.<br>If skin irritation occurs: Get medical advice/ attention. P362 Take off contaminated clothing and wash before reuse.<br>Store in a well-ventilated place. Keep container tightly closed.<br>Store locked up.<br>Dispose of contents/ container to an approved waste disposal plant. |
|---|---|
- 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS – none**

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Substances**  
 Synonyms : Tetramethylfluoroformamidinium hexafluorophosphate  
 Formula : C<sub>5</sub>H<sub>12</sub>F<sub>7</sub>N<sub>2</sub>P  
 Molecular Weight : 264.13 g/mole  
 CAS-No. : 164298-23-1

Component	Classification	Concentration
TFFH	Skin Irrit. 2; Eye Dam. 1; STOT SE 3; H315, H318, H335	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 4. FIRST AID MEASURES

- 4.1 Description of first aid measures**  
 No data available
- 4.2 Most important symptoms and effects, both acute and delayed:** The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11
- 4.3 Indication of any immediate medical attention and special treatment needed:** No data available

### 5. FIREFIGHTING MEASURES

- 5.1 Extinguishing media**  
 No data available.

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- 5.2 **Special hazards arising from the substance or mixture:** Carbon oxides, nitrogen oxides (NO<sub>x</sub>), Oxides of phosphorus, Hydrogen fluoride, Combustible.
- 5.3 **Advice for firefighters:** No data available.
- 5.4 **Further information:** No data available

### 6. ACCIDENTAL RELEASE MEASURES

- 6.1 **Personal Precautions, protective equipment, and emergency procedure:** Avoid dust formation. Avoid breathing vapors, mist or gas. For personal protection see section 8.
- 6.2 **Environmental precautions:** No data available.
- 6.3 **Methods and materials for containment and cleaning up:** No data available.
- 6.4 **Reference to other sections:** For disposal see section 13.

### 7. HANDLING AND STORAGE

- 7.1 **Precautions for safe handling:** For precautions, see section 2.2.
- 7.2 **Conditions for safe storage, including any incompatibilities:** Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 2 - 8 °C
- 7.3 **Specific end use(s):** Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

**Components with workplace control parameters** Contains no substances with occupational exposure limit values.

#### 8.2 Exposure controls

**Appropriate engineering controls** General industrial hygiene practice.

#### Personal protective equipment

**Eye/face protection** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection** Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection** Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure** Do not let product enter drains.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

a) Appearance	Form: White to Off-White powder
b) Odor	no data available
c) Odor Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	no data available
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapor pressure	no data available
l) Vapor density	no data available
m) Relative density	no data available
n) Water solubility	no data available
o) Partition coefficient: n- octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties	no data available
t) Oxidizing properties	no data available

9.2 **Other safety information:** no data available

### 10. STABILITY AND REACTIVITY

- 10.1 **Reactivity:** No data available
- 10.2 **Chemical stability:** No data available.
- 10.3 **Possibility of hazardous reactions:** No data available
- 10.4 **Conditions to avoid:** No data available
- 10.5 **Incompatible materials:** Strong oxidizing agents
- 10.6 **Hazardous decomposition products:** Other decomposition products - no data available. In the event of fire: see section 5

### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

**Acute toxicity:** No data available

**Inhalation:** No data available

**Dermal:** No data available

**Skin corrosion/irritation:** No data available

**Serious eye damage/eye irritation:** No data available

**Respiratory or skin sensitization:** No data available

**Germ cell mutagenicity:** No data available

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**Carcinogenicity:**

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.  
**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.  
**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:** No data available

**Specific target organ toxicity - single exposure:** No data available

**Specific target organ toxicity - repeated exposure:** No data available

**Aspiration hazard:** No data available

**Additional Information**

RTECS: Not available

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

**12. ECOLOGICAL INFORMATION**

- 12.1 **Toxicity:** No data available
- 12.2 **Persistence and degradability:** No data available
- 12.3 **Bioaccumulative potential:** No data available
- 12.4 **Mobility in soil:** No data available
- 12.5 **Results of PBT and vPvB assessment:** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
- 12.6 **Other adverse effects:** No data available

**13. DISPOSAL CONSIDERATIONS**

- 13.1 **Waste treatment methods**  
No data available.

**14. TRANSPORT INFORMATION**

**DOT (US)** Not dangerous goods  
**IMDG** Not dangerous goods  
**IATA** Not dangerous goods

**15. REGULATORY INFORMATION**

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards:** No SARA Hazards

**Massachusetts Right to Know Components:** No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right to Know Components**

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**New Jersey Right to Know Components**

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**California Prop. 65 Components**

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

**16. OTHER INFORMATION**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product regarding appropriate safety precautions. It does not represent any guarantee of the properties of the product. Advanced ChemTech shall not be liable for any damage resulting in the handling of or from contact with the above product.