



# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

**Product name:** 2,3,4,5-Tetrafluorobenzonitrile  
**Product code:** T1882  
**Company:** TCI (Shanghai) DEVELOPMENT CO., LTD.  
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**Revision number:** 1

## 2. HAZARDS IDENTIFICATION

### Classification of the GHS

#### PHYSICAL HAZARDS

Flammable liquids Category 4

#### HEALTH HAZARDS

Acute toxicity (Oral) Category 3

Acute toxicity (Dermal) Category 3

Acute toxicity (Inhalation) Category 3

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2A

#### ENVIRONMENTAL HAZARDS

Not classified

### GHS label elements

#### Pictograms or hazard symbols



#### Signal word

Danger

#### Hazard statement

Combustible liquid  
Toxic by inhalation, in contact with skin and if swallowed  
Causes skin irritation  
Causes serious eye irritation

#### Precautionary statements

##### [Prevention]

Keep away from flames and hot surfaces.  
Avoid breathing.  
Use only outdoors or in a well-ventilated area.  
Do not eat, drink or smoke when using this product.  
Wash hands thoroughly after handling.  
Wear protective gloves and eye/face protection.

**2. HAZARDS IDENTIFICATION****[Response]**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Gently wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

Remove/Take off immediately all contaminated clothing.

Wash contaminated clothing before reuse.

Call a POISON CENTER or doctor/physician if you feel unwell.

**[Storage]**

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

**[Disposal]**

Dispose of contents/container through a waste management company authorized by the local government

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Substance/mixture:</b>	Substance
<b>Component(s):</b>	2,3,4,5-Tetrafluorobenzonitrile
<b>Percent:</b>	>96.0%(GC)
<b>CAS Number:</b>	16582-93-7
<b>Chemical Formula:</b>	C <sub>7</sub> HF <sub>4</sub> N

**4. FIRST AID MEASURES****Inhalation:**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.

**Skin contact:**

Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician.

**Eye contact:**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Ingestion:**

Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

**Protection of first-aiders:**

A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media:**

Dry chemical, foam, water spray, carbon dioxide.

**Extinguishing media not to be used:**

Solid streams of water

**Specific hazards:**

Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.

**Specific methods:**

Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so.

**Special protective equipment for firefighters:**

When extinguishing fire, be sure to wear personal protective equipment.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures:**

Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

**Environmental precautions:**

Prevent product from entering drains.

## 6. ACCIDENTAL RELEASE MEASURES

- Methods and materials for containment and cleaning up:** Absorb spilled material in a suitable absorbent (e.g. rag, dry sand, earth, saw-dust). In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
- Prevention of secondary hazards:** Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment.

## 7. HANDLING AND STORAGE

### Handling

- Technical measures:** Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapor or mist. Keep away from flames and hot surfaces. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling.
- Advice on safe handling:** Use a closed system, ventilation. Avoid contact with skin, eyes and clothing.

### Storage

- Storage conditions:** Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store locked up. Store away from incompatible materials such as oxidizing agents.
- Packaging material:** Law is followed.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Engineering controls:** Install a closed system or local exhaust. Also install safety shower and eye bath.
- Personal protective equipment**
- Respiratory protection:** Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.
- Hand protection:** Impervious gloves.
- Eye protection:** Safety goggles. A face-shield, if the situation requires.
- Skin and body protection:** Impervious protective clothing. Protective boots, if the situation requires.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state (20°C):** Liquid
- Form:** clear
- Color:** Colorless - Slightly pale yellow
- Odor:** No data available
- pH:** No data available
- Melting point/freezing point:** No data available
- Boiling Point/Range:** 165 °C
- Flash Point:** 70°C
- Explosive limits**
- Lower:** No data available
- Upper:** No data available
- Density:** 1.48
- Solubility:** No data available

## 10. STABILITY AND REACTIVITY

- Stability:** Stable under proper conditions.
- Reactivity:** No special reactivity has been reported.
- Incompatible materials:** oxidizing agents
- Hazardous Decomposition Products:** Carbon monoxide, Carbon dioxide, Nitrogen oxides (NOx), Hydrogen fluoride

## 11. TOXICOLOGICAL INFORMATION

- Acute Toxicity:** No data available
- Skin corrosion/irritation:** No data available

## 11. TOXICOLOGICAL INFORMATION

<b>Serious eye damage/irritation:</b>	No data available
<b>Germ cell mutagenicity:</b>	No data available
<b>Carcinogenicity:</b>	
<b>IARC =</b>	No data available
<b>NTP =</b>	No data available
<b>Reproductive toxicity:</b>	No data available

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	
<b>Fish:</b>	No data available
<b>Crustacea:</b>	No data available
<b>Algae:</b>	No data available
<b>Persistence / degradability:</b>	No data available
<b>Bioaccumulative potential(BCF):</b>	No data available
<b>Mobility in soil</b>	
<b>log Pow:</b>	No data available
<b>Soil adsorption (Koc):</b>	No data available
<b>Henry's Law constant(PaM<sup>3</sup>/mol):</b>	No data available

## 13. DISPOSAL CONSIDERATIONS

Recycle to process, if possible. Consult your local regional authorities. You may be able to burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

## 14. TRANSPORT INFORMATION

<b>Hazards Class:</b>	Does not correspond to the classification standard of the United Nations
<b>UN-No:</b>	Not Listed

## 15. REGULATORY INFORMATION

**Safe management ordinance of dangerous chemical product (State Council announces on January 26, 2002):** Safe use and production, the storage of a dangerous chemical, transport, loading and unloading were prescribed.

## 16. OTHER INFORMATION

### The reference company name of written contents

<b>Company:</b>	TCI (Shanghai) DEVELOPMENT CO., LTD.
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