

Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

MSDS Name: Tetrabutylammonium fluoride trihydrate
Synonyms: TBAF
Company Identification: PI Chemicals Ltd.
Building B, 633 E Shan Road, Pudong New Area
Shanghai 200127, China
Telephone Number: 86-21-58953700
Fax Number: 86-21-58953701

Section 2 - Product Information

Catalog Number: PI-16526
CAS Number: 87749-50-6
MDL Number: MFCD00149981
EC Number: 207-057-2
Purity: 98.0%

Section 3 - Physical and Chemical Properties

Physical state: Viscous cream cream
Color: Light yellow
Molecular Formula: $C_{16}H_{42}FNO_3$
Molecular Weight: 315.51
Freezing/Melting Point: 62 - 63 °C (144 - 145 °F)
Boiling Point: Undetermined
Flash Point: Undetermined
Autoignition Temperature: Undetermined
Refractive Index (nD20): Undetermined
Density: Undetermined
Decomposition Temperature: Undetermined
Solubility: Undetermined

Section 4 - Hazards Identification

Signal word: Danger
Eye: Causes eye burns.
Skin: May be harmful if absorbed through skin. Causes skin burns.
Ingestion: May be harmful if swallowed. Causes burns.

Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Section 5 - First Aid Measures

Eye: Continue rinsing eyes during transport to hospital. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Inhalation: If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

Section 6 - Stability and Reactivity

Chemical Stability: Stable under recommended storage conditions.

Materials to avoid: Strong oxidizing agents

Conditions to Avoid: Avoid moisture.

Hazardous Decomposition Products: Carbon oxides, nitrogen oxides (NO_x), Hydrogen fluoride

Hazardous Polymerization: Has not been reported.

Section 7 - Handling and Storage

Handling: Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Storage: Keep container tightly closed in a dry and well-ventilated place.

Hygroscopic. Store under inert gas.

Section 8 - Personal Protection

Eyes: Safety glasses.

Skin: Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Clothing: Has not been reported.

Respirators: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9 - Fire and Explosion Hazard Data

General Information: As in any fire, wear a self-contained breathing apparatus, MSHA/NIOSH (approved or equivalent) and protective clothing to prevent contact with skin and eyes.

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Section 10 - Accidental Release Measures

Personal precautions: Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions: Do not let product enter drains.

Methods for cleaning up: Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

Section 11 - Toxicological Information

RTECS#: CAS# 87749-50-6: not available

LD50/LC50: not available

Carcinogenicity: Tetrabutylammonium fluoride trihydrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or OSHA.

Section 12 - Environmental information

Not available

Section 13 - Disposal Consideration

Product: Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging: Dispose of as unused product.

Section 14 - Transport Information

DOT (US): UN-Number: 1759 Class: 8 Packing group: III

Proper shipping name: Corrosive solids, n.o.s. (Tetrabutylammonium fluoride)

Marine pollutant: No

Poison Inhalation Hazard: No

IMDG: UN-Number: 1759 Class: 8 Packing group: III EMS-No: F-A, S-B

Proper shipping name: CORROSIVE SOLID, N.O.S. (Tetrabutylammonium fluoride)

Marine pollutant: No

IATA: UN-Number: 1759 Class: 8 Packing group: III

Proper shipping name: Corrosive solid n.o.s. (Tetrabutylammonium fluoride)

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Pictogram:



Signal word: **Danger**

Hazard statement(s)

H314 Causes severe skin burns and eye damage

Risk Phrases:

R 34: Causes burns

WGK (Water Danger/Protection)

CAS# 87749-50-6: 3

WGK 1: Slightly water polluting substance; WGK 2: Water polluting substance; WGK 3: Highly water polluting substance

Canada

CAS# 87749-50-6: Not available

US Federal

TSCA

CAS# 87749-50-6 is not listed on the TSCA Inventory. It is for research and development use only.

Section 16 - Additional Information

MSDS Creation Date: Mar 15, 2009

Update: Mar 14, 2012

The above information is believed to be accurate and represents the best knowledge available to us currently. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall PI Chemicals, be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, even if PI Chemicals has been advised of the possibility of such damages.

For R&D use only.