



SAFETY DATA SHEET

ProChemOnline.com



SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Thulium (III) Fluoride, anhydrous**

PRODUCT NUMBER: 3604

CAS NUMBER: 13760-79-7

SYNONYMS: Thulium trifluoride

MANUFACTURER:

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Danger

Hazard Statements

H301+H311+H331	Toxic if swallowed, in contact with skin, or if inhaled.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary Phrases

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P361	Remove/take off immediately all contaminated clothing.
P363	Wash contaminated clothing before reuse.
P403+P233	Store in a well-ventilated place.

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

HMIS CLASSIFICATION:

Health: 2 Fire: 0 Reactivity Hazard: 0

NFPA RATING:

Health: 2 Flammability: 0 Reactivity Hazard: 0

EYE CONTACT: Causes irritation of the eyes.

SKIN CONTACT: Causes slight to mild irritation of the skin.

INHALATION: Irritating to the respiratory tract.

INGESTION: Toxicity reduced to the extent that this compound is relatively insoluble. In large amounts may cause vomiting, abdominal pain, and diarrhea.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: TmF₃

Molecular Weight: 225.93

CHEMICAL NAME	CAS#	%
Thulium (III) Fluoride	13760-79-7	100

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.

INGESTION: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Product is not flammable

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Not available

EXTINGUISHING MEDIUM: Use fire fighting measures that suit the surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Hydrogen fluoride and Thulium oxides

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid breathing dust.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Pick up and arrange disposal without creating dust. Sweep up and keep in suitable, closed containers for disposal. Do not flush with water. Dispose of all waste and cleanup materials in accordance with regulations.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of dusts and aerosols.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Handle under a dry atmosphere or air or nitrogen. Prolong exposure to the atmosphere may degrade the product. Store away from water, moisture, and acids.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS

Component	Exposure Limits	Basis	Entity
Thulium (III) Fluoride	2.5 mg/m ³	TLV	ACGIH
	2.5 mg/m ³	PEL	OSHA
	2.5 mg/m ³	REL	NIOSH
	3mg/g*	BEI-U	ACGIH
	10mg/g**	BEI-U	ACGIH

*Prior to shift

**End of shift

TLV: Threshold Limit Value over 8 hours of work.

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI-U: Biological Exposure Indices in Urine

EYE PROTECTION: Wear chemical safety glasses or goggles.

SKIN PROTECTION: Wear nitrile or rubber gloves, apron, or lab coat.

VENTILATION: Provide local exhaust, preferably mechanical.

RESPIRATOR: Use an approved respirator.

ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Off white powder

ODOR: None

MOLECULAR WEIGHT: 225.93

BOILING POINT: 2200° C

MELTING POINT: 1158° C

SPECIFIC GRAVITY: 7.9 gm/ml

VAPOR DENSITY: No data available

SOLUBILITY: Insoluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Contact with moisture

INCOMPATIBILITY: Strong oxidizing agents, acids, water, and moisture.

DECOMPOSITION PRODUCTS: Thulium oxides and hydrogen fluoride

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: Harmful if inhaled, in contact with skin, or swallowed. Danger through skin absorption.

CARCINOGENIC EFFECTS: No components of this product present at levels greater than or equal to 0.1% is identified a carcinogen.

MUTAGENIC EFFECTS: Not available

TETRATOGENIC EFFECTS: Not available

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

No data available.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

UN3288

Toxic solid, inorganic, n.o.s.

(Thulium (III) fluoride)

CLASS 6.1

PG III

Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory

DSCL (EEC): Listed on the DSCL inventory

SARA 302/304: Not Listed

SARA 311/312: Acute Health Hazard

SARA (TITLE 313): Not Listed

PENNSYLVANIA RIGHT TO KNOW: Thulium (III) Fluoride

NEW JERSEY RIGHT TO KNOW: Thulium (III) Fluoride

CALIFORNIA PROP. 65: Not Listed

WHMIS CANADA: Class D-1B: Toxic material causing immediate and serious toxic effects. Class D-2B: Toxic material causing other toxic effects.

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

DATE PREPARED: 09/14