

GELEST, INC.

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MATERIAL SAFETY
DATA SHEET

EMERGENCY TELEPHONE
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **TANTALUM PENTAFLUORIDE - INTA075**
CHEMICAL NAME: TANTALUM PENTAFLUORIDE
SYNONYMS: PENTAFLUOROTANTALUM; TANTALUM V FLUORIDE
CHEMICAL FAMILY: INORGANIC HALIDE
FORMULA: TaF₅
HMIS CODES HEALTH: 3 FLAMMABILITY: 0 REACTIVITY: 1

INGREDIENTS

IDENTITY	CAS NO.	%	TLV
TANTALUM PENTAFLUORIDE	7783-71-3	>95	not established (TLV for fluorides as F: 2.5mg/m ³)

PHYSICAL DATA

Boiling Point: 229-230°C	Melting Point: 96-7°C
Specific Gravity: 4.74	Vapor Pressure, 25°: not determined
Vapor Density (air=1): >1	Solubility in water: reacts
% volatiles: NA	Evaporation rate: NA
Molecular Weight: 275.94	Other: NA
Appearance & Color: Off-white powder with acrid odor of hydrogen fluoride	

FIRE & EXPLOSION DATA

Flash Point, COC: Not Flammable Autoignition Temp.: NA
Flammability Limits- LEL: NA UEL: NA

Extinguishing Media: NA

Special Fire Fighting Procedures: (Note, since tantalum fluoride is not flammable, precautions refer to mixtures with flammable materials.) Avoid eye and skin contact. Do not breathe fumes or inhale vapors.

Unusual Fire and Explosion Hazards: Irritating fumes and acid vapors may develop when material is exposed to elevated temperatures or open flame.

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ENVIRONMENTAL INFORMATION

Spill response: May be hazardous to aquatic life if released to open waters. Cover spill with absorbent material. Transfer to a suitable container for disposal.

Recommended Disposal: Dispose of absorbent material as solid waste. Follow all chemical pollution control regulations.

HEALTH HAZARD DATA

Eye Contact: Will cause immediate or delayed severe damage to eye tissue.

Skin contact: Will produce tissue damage or irritation or contact dermatitis which may be delayed several hours. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects. Prolonged absorption of fluorides may produce skin rashes, running nose, headache, mucous membrane irritation, anemia, loss of weight and depression. Fluorosis (bone damage) is possible.

Inhalation: Inhalation of vapors or particulates of tantalum halides will irritate the respiratory tract. Overexposure may produce coughing, headache and nausea. Inhalation of large amounts is expected to cause necrosis of tracheal epithelium, bronchitis and interstitial pneumonia. Fluorosis (bone damage) is possible.

Oral Toxicity: Not determined.

Acute Toxicity: Not determined

Chronic Toxicity: There are no known chronic effects related to this compound.

SUGGESTED FIRST AID

EYES: In case of contact, immediately flush eyes with flowing water for at least 15 minutes. Get medical attention.

SKIN: Flush with water, then wash with soap and water. *Note to physician:* Reacts with water to form hydrofluoric acid, consequently treatment for with calcium gluconate may be considered.

INHALATION: Move exposed individual to fresh air. Call a physician.

INGESTION: Never give fluids or induce vomiting if patient is unconscious or having convulsions. Get medical attention.

REACTIVITY DATA

Stability: Stable

Incompatibility (materials to avoid): Reacts with water and moisture in air liberating hydrogen fluoride and titanium oxyfluorides.

Hazardous decomposition products: Acid vapors, hydrogen fluoride

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SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV air-supplied or acid gas respirator.

Eye and Face Protection: Chemical worker's goggles. Do not wear contact lenses.

Other Clothing and Equipment: Rubber, neoprene or nitrile gloves. An eyewash and emergency shower should be available. Launder clothing before reuse.

OTHER PRECAUTIONS

For research and industrial use only.

Storage and Handling: Store in sealed containers. Avoid contact with water.

TRANSPORTATION

DOT SHIPPING NAME: CORROSIVE SOLD, N.O.S. (TANTALUM PENTAFLUORIDE)

DOT HAZARD CLASS: 8

DOT LABEL: CORROSIVE

DOT ID No: UN1759

PG: II

Prepared by safety and environmental affairs

ISSUE DATE INTA075: 4/18/06

SUPERSEDES: none

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