



# SAFETY DATA SHEET

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## SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Niobium (V) Chloride**  
PRODUCT NUMBER: 2743  
CAS NUMBER: 10026-12-7  
SYNONYMS: Niobium pentachloride, columbium pentachloride  
MANUFACTURER:

Prochem, Inc.  
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IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC: 1-800-424-9300

## SECTION 2 HAZARDS IDENTIFICATION

### CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

**Danger**

### Hazard Statements

H302+H312+H332	Harmful if swallowed, in contact with skin, or if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

### Precautionary Phrases

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
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/face protection/eye protection.
P301+P312+P330	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340+P310	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338+P310	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 or doctor/physician.

### HMIS CLASSIFICATION:

Health: 3      Fire: 0      Reactivity Hazard: 1

### NFPA RATING:

Health: 3      Flammability: 0      Reactivity Hazard: 1

## SECTION 2 HAZARDS IDENTIFICATION (Cont.)

**EYE CONTACT:** May cause severe irritation to the eyes.

**SKIN CONTACT:** May cause severe irritation of the skin.

**INHALATION:** Forms hydrogen chloride in the presence of moisture. Inhalation can lead to irritation of the respiratory tract.

**INGESTION:** No information available on the acute physiological effects of ingestion.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: NbCl<sub>5</sub>

Molecular Weight: 270.17

CHEMICAL NAME	CAS#	%
Niobium (V) Chloride	10026-12-7	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 plenty of water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

**INHALATION:** Remove to fresh air and keep at rest. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases, seek immediate medical assistance.

**INGESTION:** Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

## 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. Reacts with water forming hydrochloric acid.

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:** Hydrogen chloride and niobium oxides

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid dust formation. 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:** Neutralize spill. Sweep up and place in suitable container for proper disposal.

## SECTION 7 HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Wear appropriate personal protective equipment. Ensure adequate ventilation. Avoid contact with skin and eyes. Handle under dry protective gas.

**CONDITIONS FOR SAFE STORAGE:** Store in cool, dry, and well-ventilated area. Store away from alcohols, strong bases, amines, water, and moisture. Do not store with acids. Store under dry inert gas.

## SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

**EXPOSURE CONTROLS:** Contains no substances with occupational exposure limit values.

**EYE PROTECTION:** Wear chemical safety glasses or goggles and face shield.

**SKIN PROTECTION:** Wear nitrile or rubber gloves, and a complete suit protecting against chemicals.

**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:** Yellow solid

**ODOR:** Acidic

**MOLECULAR WEIGHT:** 270.17

**BOILING POINT:** 248.3° C

**MELTING POINT:** 208.3° C

**SPECIFIC GRAVITY:** 2.74 gm/ml

**SOLUBILITY:** Reacts with water

## SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID:** Reacts with water to form hydrochloric acid.

**INCOMPATIBILITY:** Strong acids, water, moisture, alcohols, amines, and bases.

**DECOMPOSITION PRODUCTS:** Hydrogen chloride and niobium oxides

## SECTION 11 TOXICOLOGICAL DATA

**ACUTE TOXICITY:** LD50 Oral – rat – 1,400 mg/kg

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

**MUTAGENIC EFFECTS:** Not available

**TETRAOGENIC EFFECTS:** Not available

**CHRONIC TOXICITY:** Not available

**RTECS:** QU0350000

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

## SECTION 12 ECOLOGICAL DATA

No information available

## SECTION 13 DISPOSAL CONSIDERATIONS

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

## SECTION 14 TRANSPORTATION DATA

UN3260

Marine Pollutant: No

Corrosive solid, acidic, inorganic, n.o.s.

(Niobium (V) Chloride)

CLASS 8

PG II

## **SECTION 15 REGULATORY INFORMATION**

**SARA 302/304:** Not Listed

**SARA (TITLE 313):** Not listed

**CALIFORNIA PROP. 65:** Not Listed

**MASSACHUSETTS RIGHT TO KNOW COMPONENTS:** No components are subject to the Massachusetts Right to Know Act.

**NEW JERSEY RIGHT TO KNOW COMPONENTS:** Niobium (V) Chloride

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS:** Niobium (V) Chloride

## **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:** 03/15

**SDS DEPT.**