

# SAFETY DATA SHEET

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## SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Tantalum Hydride**

PRODUCT NUMBER: 3415-1

CAS NUMBER: 13981-95-8

### MANUFACTURER:

Prochem, Inc.  
826 Roosevelt Road  
Rockford, IL 61109

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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

H228	Flammable solid.
H261	In contact with water releases flammable gas.
H302+H312+H332	Harmful if swallowed, in contact with skin, or if inhaled.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

### Precautionary Phrases

P210	Keep away from heat/sparks/open flames/hot surfaces. –No smoking.
P223	Keep away from any possible contact with water, because of violent reaction and possible flash fire.
P231+P232	Handle under inert gas. Protect from moisture.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
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.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

## SECTION 2 HAZARDS IDENTIFICATION (Cont.)

### HMIS CLASSIFICATION:

Health: 1 Fire: 3 Reactivity Hazard: 2

### NFPA RATING:

Health: 1 Flammability: 3 Reactivity Hazard: 2

**EYE CONTACT:** Causes irritation and burns to the eyes.

**SKIN CONTACT:** Causes irritation and burns to the skin.

**INHALATION:** EXTREMELY HARMFUL! Causes irritation and burns to the nasal cavity and respiratory tract.

**INGESTION:** Harmful if swallowed.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: TaH<sub>5</sub>

Molecular Weight: 185.99

CHEMICAL NAME	CAS#	%
Tantalum hydride	13981-95-8	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 medical attention.

**SKIN EXPOSURE:** Wash affected area with soap and copious amounts of water. Remove contaminated clothing if necessary. Seek medical assistance immediately if irritation, redness persists, or if burns develop.

**INHALATION:** Remove victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. Give oxygen if necessary. Give CPR if not breathing. Seek immediate medical care.

**INGESTION:** Seek medical assistance immediately. Keep victim calm.

## SECTION 5 FIREFIGHTING MEASURES

**FLASH POINT:** Pyrophoric

**AUTO IGNITION TEMPERATURE:** Not available

**EXPLOSION LIMITS:** Not available

**EXTINGUISHING MEDIUM:** Class D extinguisher only. Or smother with dry sand. DO NOT USE WATER!

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. Contact with water released flammable gases.

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:** Hydrogen gas and tantalum oxides

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust.

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

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Cover with dry lime, dry sand, or soda ash. Sweep up and place in suitable container for proper disposal.

## SECTION 7 HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Use with adequate ventilation. Avoid formation of dusts and aerosols. Handle under inert gas. Keep ignition sources away. Protect against electrostatic charges.

**CONDITIONS FOR SAFE STORAGE:** Store in cool, dry, and well-ventilated area. Keep away from incompatible materials. Store away from water. Store under argon. Moisture sensitive. Store between 15-30°C.

## 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:** Gray powder

**ODOR:** None

**MOLECULAR WEIGHT:** 185.99

**BOILING POINT:** No data available

**MELTING POINT:** No data available

**SPECIFIC GRAVITY:** 15.1 gm/ml

**SOLUBILITY:** Violent Reaction with water liberates flammable gases

## SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID:** Heat, flames, sparks, and other ignition sources

**INCOMPATIBILITY:** Strong oxidizing agents, alcohols, water, and acids

**DECOMPOSITION PRODUCTS:** Hydrogen gas and tantalum oxides

## SECTION 11 TOXICOLOGICAL DATA

**ACUTE TOXICITY:** Not available

**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

**TETRAOGENIC EFFECTS:** Not available

**CHRONIC TOXICITY:** Not available

**RTECS:** No data

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

UN3132

Marine Pollutant: No

Water-Reactive solid, flammable, n.o.s.

(Tantalum hydride)

CLASS 4.3 (4.1)

PG II

## **SECTION 15 REGULATORY INFORMATION**

**SARA 302/304:** Not Listed

**SARA 311/312:** Not Listed

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

**CALIFORNIA PROP. 65:** Not Listed

**WHMIS CANADA:** Not Listed

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

**NEW JERSEY RIGHT TO KNOW COMPONENTS:** No components are subject to the New Jersey Right to Know Act.

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

## **SECTION 16 OTHER INFORMATION**

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SDS DEPT.