## 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  
**PHONE:** 815-398-1788  
**FAX:** 815-398-1810  
**TOLL FREE:** 800-795-8788

**IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC:** 1-800-424-9300

## SECTION 2  HAZARDS IDENTIFICATION

### CLASSIFICATION OF SUBSTANCE OR MIXTURE

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>Signal Word</th>
<th>Hazard Statements</th>
</tr>
</thead>
</table>
| ![Flammable Symbol](image) | **Danger** | 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

<table>
<thead>
<tr>
<th>Precautionary Phrases</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>P210</td>
<td>Keep away from heat/sparks/open flames/hot surfaces. –No smoking.</td>
</tr>
<tr>
<td>P223</td>
<td>Keep away from any possible contact with water, because of violent reaction and possible flash fire.</td>
</tr>
<tr>
<td>P231+P232</td>
<td>Handle under inert gas. Protect from moisture.</td>
</tr>
<tr>
<td>P240</td>
<td>Ground/bond container and receiving equipment.</td>
</tr>
<tr>
<td>P241</td>
<td>Use explosion-proof electrical/ventilating/lighting equipment.</td>
</tr>
<tr>
<td>P261</td>
<td>Avoid breathing dust/fume/gas/mist/vapors/spray.</td>
</tr>
<tr>
<td>P280</td>
<td>Wear protective gloves/protective clothing/eye protection/face protection.</td>
</tr>
<tr>
<td>P301+P312</td>
<td>IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.</td>
</tr>
<tr>
<td>P302+P352</td>
<td>IF ON SKIN: Wash with plenty of soap and water.</td>
</tr>
<tr>
<td>P304+P340</td>
<td>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</td>
</tr>
<tr>
<td>P305+P351+P338</td>
<td>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.</td>
</tr>
</tbody>
</table>
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: TaH₅
Molecular Weight: 185.99

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tantalum hydride</td>
<td>13981-95-8</td>
<td>100</td>
</tr>
</tbody>
</table>

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
TETRATOGENIC 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

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: 05/15
SDS DEPT.