



SAFETY DATA SHEET

ProChemOnline.com



SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Titanium (II) Hydride**

PRODUCT NUMBER: 3700

CAS NUMBER: 7704-98-5

SYNONYMS: Titanium Dihydride

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

Pictogram



Signal Word

Danger

Hazard Statements

H228	Flammable solid.
------	------------------

Precautionary Phrases

P210	Keep away from heat/sparks/open flames/hot surfaces.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

HMIS CLASSIFICATION:

Health: 1 Fire: 3 Reactivity Hazard: 2

NFPA RATING:

Health: 1 Flammability: 3 Reactivity Hazard: 2

EYE CONTACT: May cause moderate irritation to the eyes.

SKIN CONTACT: May cause mild irritation to the skin.

INHALATION: Inhalation of dust may cause irritation to the nose, mucous membranes, and respiratory tract.

INGESTION: Reacts slowly with body fluids to produce explosive hydrogen gas.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: TiH_2

Molecular Weight: 49.88

CHEMICAL NAME	CAS#	%
Titanium (II) Hydride	7704-98-5	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: 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: Not available, highly flammable material.

AUTO IGNITION TEMPERATURE: 225°C

EXPLOSION LIMITS: Not available

EXTINGUISHING MEDIUM: Use sand, carbon dioxide, or powdered extinguishing agent. Do NOT use water.

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

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Titanium oxides and hydrogen gas.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Handle under argon.

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

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Remove sources of ignition. Do not raise dust. Mix with vermiculite, sodium carbonate, or other suitable dry non-combustible absorbent and swept up.

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. Keep away from sources of ignition – No smoking. Take measures to prevent the build up of electrostatic charge

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Store away from air, water, moisture, and oxidizing agents. Product is moisture and air sensitive. Store under dry inert gas.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS: This product contains no materials with occupational exposure limit values

EYE PROTECTION: Wear chemical safety glasses or goggles.

SKIN PROTECTION: Wear nitrile or rubber gloves.

VENTILATION: Provide local exhaust, preferably mechanical.

RESPIRATOR: Use an approved respirator.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Dark gray powder

ODOR: None

MOLECULAR WEIGHT: 49.88

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES (Cont.)

BOILING POINT: Not available

MELTING POINT: > 400° C (dec.)

SPECIFIC GRAVITY: 3.91 gm/ml

VAPOR DENSITY: No data available

SOLUBILITY: Reacts slowly with water

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Do not allow powder to contact water or form a cloud of dust in the air.

INCOMPATIBILITY: Strong oxidizing agents, alcohols, peroxides, halogens, water, moisture, and air.

DECOMPOSITION PRODUCTS: Titanium oxides and hydrogen gas.

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: TCLo Inhalation – rat – 8mg/m³ 26w-1

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

RTECS: XR2130000

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

UN1871

Titanium Hydride

CLASS 4.1

PG II

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: Fire Hazard

SARA (TITLE 313): Not Listed

CALIFORNIA PROP. 65: Not Listed

PENNSYLVANIA RIGHT TO KNOW: Titanium (II) hydride

NEW JERSEY RIGHT TO KNOW: Titanium (II) hydride

WHMIS CANADA: Class B-4: Flammable solid.

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