



# SAFETY DATA SHEET

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## SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Tantalum, powder**

PRODUCT NUMBER: 3400

CAS NUMBER: 7440-25-7

### MANUFACTURER:

Prochem, Inc.  
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## SECTION 2 HAZARDS IDENTIFICATION

### CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

**Warning**

### Hazard Statements

H228	Flammable solid.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

### 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.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
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.
P362	Take off contaminated clothing and wash before reuse.
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403+P233	Store in a well-ventilated place.

## SECTION 2 HAZARDS IDENTIFICATION (Cont.)

### HMIS CLASSIFICATION:

Health: 2 Fire: 3 Reactivity Hazard: 3

### NFPA RATING:

Health: 2 Flammability: 3 Reactivity Hazard: 3

**EYE CONTACT:** Causes slight to mild irritation of the eyes.

**SKIN CONTACT:** Causes slight to mild irritation of the skin.

**INHALATION:** May be irritating to nasal cavity and respiratory tract.

**INGESTION:** May be harmful if swallowed.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: Ta

Molecular Weight: 180.95

CHEMICAL NAME	CAS#	%
Tantalum Powder	7440-25-7	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 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:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary.

## SECTION 5 FIREFIGHTING MEASURES

**FLASH POINT:** Not available

**AUTO IGNITION TEMPERATURE:** 300° C

**EXPLOSION LIMITS:** Not available

**EXTINGUISHING MEDIUM:** Special powder for metal fires. 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:** Tantalum oxides

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Wear all appropriate equipment when using this material. Ensure adequate ventilation.

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

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Contain spillage. Sweep up and shovel into container for disposal according to the local regulations.

## SECTION 7 HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of dusts and aerosols.

**CONDITIONS FOR SAFE STORAGE:** Store in cool, dry, and well-ventilated area.

## SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

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

Component	Exposure Limits	Basis	Entity
Tantalum	5 mg/m <sup>3</sup>	PEL	OSHA
	5 mg/m <sup>3</sup>	REL	NIOSH
	10 mg/m <sup>3</sup>	STEL	NIOSH

STEL: Short Term Exposure Limit during x minutes.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

**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 to black powder.

**ODOR:** None

**MOLECULAR WEIGHT:** 180.95

**BOILING POINT:** 5425-5429° C

**MELTING POINT:** 2996° C

**SPECIFIC GRAVITY:** 16.69 gm/ml

**VAPOR DENSITY:** No data available

**SOLUBILITY:** Insoluble

## SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID:** Heat, flames, and sparks. Extremes of temperature and direct sunlight.

**INCOMPATIBILITY:** Halogens, strong mineral acids, and oxidizing agents.

**DECOMPOSITION PRODUCTS:** Tantalum oxides

## SECTION 11 TOXICOLOGICAL DATA

**ACUTE TOXICITY:** LC50 Oral – mouse – 595 mg/kg. TDLo Implant – rat – 3760mg/kg.

**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

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**

<b>DOT:</b> UN3089	<b>IATA:</b> UN3089
Metal powders, flammable, n.o.s. (Tantalum)	Metal powder, flammable, n.o.s. (Tantalum)
CLASS 4.1	CLASS 4.1
PG III	PG III

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, Acute Health Hazard  
**SARA (TITLE 313):** Not Listed  
**CALIFORNIA PROP. 65:** Not Listed  
**WHMIS CANADA:** Not Listed

## **SECTION 16 OTHER INFORMATION**

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