

# Safety Data Sheet

Heeger Materials Inc.

www.heegermaterials.com

Revision Date: 02/01/2019

## 1 Identification of substance:

Product details:

Product name: Tantalum Nano powder

Manufacturer/Supplier:

Heeger Materials Inc.

230 Steele St Denver, CO 80206, USA

Phone: 925-385-8104, Email: ssaales@heegermaterials.com

## 2 Composition/Data on components:

Chemical characterization:

Description: (CAS#)

Tantalum (CAS# 7440-25-7)

Identification number(s): n/a

EINECS Number: n/a

## 3 Hazards identification

### Emergency Overview

#### OSHA Hazards

Flammable solid, Irritant

#### GHS Label elements, including precautionary statements

Pictogram



Signal word      Warning

Hazard statement(s)

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

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### HMIS Classification

Health hazard: 2

Flammability: 0

Physical hazards: 3

#### NFPA Rating

Health hazard: 2

Fire: 0

Reactivity Hazard: 3

### **Potential Health Effects**

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.

**Skin** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes** Causes eye irritation.

**Ingestion** May be harmful if swallowed.

## **4 First aid measures**

### **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

### **If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

### **In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

### **In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

### **If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## **5 Fire fighting measures**

### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### **Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

### **Further information**

Use water spray to cool unopened containers.

## **6 Accidental release measures**

### **Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Avoid breathing dust.

### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### **Methods and materials for containment and cleaning up**

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

## **7 Handling and storage**

### **Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition – No smoking. Take measures to prevent the build up of electrostatic charge.

### **Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place. Store in cool place.

Keep in a dry place.

## **8 Exposure controls and personal protection**

### Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
	7440-25-7	TWA	5 mg/m <sup>3</sup>	1997-08-04	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	5 mg/m <sup>3</sup>	1989-01-19	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

### Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Eye protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin and body protection

Impervious clothing, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9 Physical and chemical properties:

### Appearance

Form powder  
Colour light grey

### Safety data

pH no data available  
Melting point 2,996 °C (5,425 °F)  
Boiling point 5,425 °C (9,797 °F)  
Flash point not applicable  
Flammability (solid, gas): The substance or mixture is a flammable solid with the subcategory 2.  
Ignition temperature no data available  
Lower explosion limit no data available  
Upper explosion limit no data available  
Density 16.69 g/cm<sup>3</sup>  
Water solubility insoluble

## 10 Stability and reactivity

**Chemical stability**

Stable under recommended storage conditions.

**Conditions to avoid**

Heat, flames and sparks. Extremes of temperature and direct sunlight.

**Materials to avoid**

no data available

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Tantalum Oxides

**11 Toxicological information****Acute toxicity**

LC50 Oral - mouse - 595 mg/kg

**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitization**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

IARC: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product presents at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product presents at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product presents at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**

no data available

**Specific target organ toxicity - single exposure (GHS)**

Inhalation - May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure (GHS)**

no data available

**Aspiration hazard**

no data available

**Potential health effects**

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.

**Ingestion** May be harmful if swallowed.

**Skin** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes** Causes eye irritation.

**Additional Information****12 Ecological information:****Toxicity**

no data available

**Persistence and degradability**

no data available

**Bioaccumulative potential**

no data available

**Mobility in soil**

no data available

**PBT and vPvB assessment**

no data available

**Other adverse effects**

no data available

**13 Disposal considerations****Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of as unused product.

**14 Transport information****DOT (US)**

UN-Number: 3089 Class: 4.1 Packing group: II  
Proper shipping name: Metal powders, flammable, n.o.s.  
Marine pollutant: No  
Poison Inhalation Hazard: No

**IMDG**

UN-Number: 3089 Class: 4.1 Packing group: II EMS-No: F-G, S-G  
Proper shipping name: METAL POWDER, FLAMMABLE, N.O.S.  
Marine pollutant: No

**IATA**

UN-Number: 3089 Class: 4.1 Packing group: II  
Proper shipping name: Metal powder, flammable, n.o.s.

**15 Regulations****OSHA Hazards**

Flammable solid, Irritant

**DSL Status**

All components of this product are on the Canadian DSL list.

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

Fire Hazard, Acute Health Hazard

**Massachusetts Right To Know Components**

Tantalum powder  
CAS-No.  
7440-25-7  
Revision Date  
1993-04-24

**Pennsylvania Right To Know Components**

Tantalum powder  
CAS-No.  
7440-25-7  
Revision Date

1993-04-24

**New Jersey Right To Know Components**

Tantalum powder

CAS-No.

7440-25-7

Revision Date

1993-04-24

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**16 Other information:**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Heeger Materials Inc.