



# PRODUCT INFORMATION SHEET

**MATERION**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Name of the substance** Tantalum Product  
**Identification number** 231-135-5 (EC number)  
**Registration number** -  
**Document number** 31  
**Synonyms** None.  
**Issue date** 12-February-2018  
**Revision date** 14-May-2019  
**Supersedes date** 21-February-2019  
**Version number** 04

### 1.3. Details of the supplier of the product information sheet

#### Supplier

**Company name** Materion Advanced Materials Group  
**Address** 42 Mt. Ebo Road South  
Brewster, NY 10509  
United States

#### Division

**Telephone** 1+845.279.0900  
**e-mail** Not available.  
**Contact person** Not available.

**1.4. Emergency telephone number** Chemtrec 1+703.527.3887

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** Not available.  
**Uses advised against** None known.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 as amended

**Hazard summary** Not available.

### 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

**Contains:** Tantalum

#### Hazard pictograms



**Signal word** None.

**Hazard statements** The material as sold in solid form is generally not considered hazardous. However, if the process involves grinding, melting, cutting or any other process that causes a release of dust or fumes, hazardous levels of airborne particulate could be generated.

#### Precautionary statements

##### Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P241 Use explosion-proof electrical/ventilating/lighting equipment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

##### Response

P370 + P378 In case of fire: Use appropriate media for extinction.

##### Storage

Store away from incompatible materials.

##### Disposal

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Supplemental label information**

None.

**2.3. Other hazards**

None known.

**SECTION 3: Composition/information on ingredients****3.1. Substances****General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Tantalum	99,9 - 100	7440-25-7 231-135-5	-	-	
<b>Classification:</b>	-				

**SECTION 4: First aid measures****General information** Not available.**4.1. Description of first aid measures****Inhalation** Not available.**Skin contact** Not available.**Eye contact** Not available.**Ingestion** Not available.**4.2. Most important symptoms and effects, both acute and delayed** Not available.**4.3. Indication of any immediate medical attention and special treatment needed** Not available.**SECTION 5: Firefighting measures****General fire hazards** Not available.**5.1. Extinguishing media****Suitable extinguishing media** DRY sand, sodium chloride powder, graphite powder or Met-L-X powder.**Unsuitable extinguishing media** Not available.**5.2. Special hazards arising from the substance or mixture** Not available.**5.3. Advice for firefighters****Special protective equipment for firefighters** Not available.**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel** Not available.**For emergency responders** Not available.**6.2. Environmental precautions** Not available.**6.3. Methods and material for containment and cleaning up** Not available.**6.4. Reference to other sections** Not available.**SECTION 7: Handling and storage****7.1. Precautions for safe handling** Not available.

7.2. Conditions for safe storage, including any incompatibilities Not available.

7.3. Specific end use(s) Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Material	Type	Value	Form
Tantalum Product	MAK	5 mg/m <sup>3</sup>	Inhalable fraction.
Components	Type	Value	Form
Tantalum (CAS 7440-25-7)	MAK	5 mg/m <sup>3</sup>	Inhalable fraction.

##### Belgium. Exposure Limit Values.

Material	Type	Value
Tantalum Product	TWA	5 mg/m <sup>3</sup>
Components	Type	Value
Tantalum (CAS 7440-25-7)	TWA	5 mg/m <sup>3</sup>

##### Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Material	Type	Value
Tantalum Product	TWA	5 mg/m <sup>3</sup>
Components	Type	Value
Tantalum (CAS 7440-25-7)	TWA	5 mg/m <sup>3</sup>

##### Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

Material	Type	Value
Tantalum Product	MAC	5 mg/m <sup>3</sup>
	STEL	10 mg/m <sup>3</sup>
Components	Type	Value
Tantalum (CAS 7440-25-7)	MAC	5 mg/m <sup>3</sup>
	STEL	10 mg/m <sup>3</sup>

##### Czech Republic. OELs. Government Decree 361

Material	Type	Value	Form
Tantalum Product	TWA	5 mg/m <sup>3</sup>	Dust.
Components	Type	Value	Form
Tantalum (CAS 7440-25-7)	TWA	5 mg/m <sup>3</sup>	Dust.

##### Denmark. Exposure Limit Values

Material	Type	Value	Form
Tantalum Product	TLV	5 mg/m <sup>3</sup>	Dust.
Components	Type	Value	Form
Tantalum (CAS 7440-25-7)	TLV	5 mg/m <sup>3</sup>	Dust.

##### Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

Material	Type	Value	Form
Tantalum Product	TWA	5 mg/m <sup>3</sup>	Respirable dust.
		10 mg/m <sup>3</sup>	Total dust.
		1 mg/m <sup>3</sup>	Dust.
Components	Type	Value	Form
Tantalum (CAS 7440-25-7)	TWA	5 mg/m <sup>3</sup>	Respirable dust.
		10 mg/m <sup>3</sup>	Total dust.
		1 mg/m <sup>3</sup>	Dust.

**Finland. Workplace Exposure Limits**

Material	Type	Value
Tantalum Product	TWA	5 mg/m <sup>3</sup>
<b>Components</b>	<b>Type</b>	<b>Value</b>
Tantalum (CAS 7440-25-7)	TWA	5 mg/m <sup>3</sup>

**France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984**

Material	Type	Value
Tantalum Product	VME	5 mg/m <sup>3</sup>
<b>Regulatory status:</b> Indicative limit (VL)		
<b>Components</b>	<b>Type</b>	<b>Value</b>
Tantalum (CAS 7440-25-7)	VME	5 mg/m <sup>3</sup>
<b>Regulatory status:</b> Indicative limit (VL)		

**Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)**

Material	Type	Value	Form
Tantalum Product	TWA	4 mg/m <sup>3</sup>	Inhalable fraction.
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Tantalum (CAS 7440-25-7)	TWA	4 mg/m <sup>3</sup>	Inhalable fraction.

**Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace**

Material	Type	Value	Form
Tantalum Product	AGW	10 mg/m <sup>3</sup>	Inhalable fraction.
		1,25 mg/m <sup>3</sup>	Respirable fraction.
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Tantalum (CAS 7440-25-7)	AGW	10 mg/m <sup>3</sup>	Inhalable fraction.
		1,25 mg/m <sup>3</sup>	Respirable fraction.

**Greece. OELs (Decree No. 90/1999, as amended)**

Material	Type	Value
Tantalum Product	STEL	10 mg/m <sup>3</sup>
	TWA	5 mg/m <sup>3</sup>
<b>Components</b>	<b>Type</b>	<b>Value</b>
Tantalum (CAS 7440-25-7)	STEL	10 mg/m <sup>3</sup>
	TWA	5 mg/m <sup>3</sup>

**Hungary. OELs. Joint Decree on Chemical Safety of Workplaces**

Material	Type	Value	Form
Tantalum Product	TWA	6 mg/m <sup>3</sup>	Respirable dust.
		10 mg/m <sup>3</sup>	Total inhalable dust.
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Tantalum (CAS 7440-25-7)	TWA	6 mg/m <sup>3</sup>	Respirable dust.
		10 mg/m <sup>3</sup>	Total inhalable dust.

**Iceland. OELs. Regulation 154/1999 on occupational exposure limits**

Material	Type	Value	Form
Tantalum Product	TWA	5 mg/m <sup>3</sup>	Dust.
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Tantalum (CAS 7440-25-7)	TWA	5 mg/m <sup>3</sup>	Dust.

**Ireland. Occupational Exposure Limits**

Material	Type	Value
Tantalum Product	STEL	10 mg/m <sup>3</sup>
	TWA	5 mg/m <sup>3</sup>

**Ireland. Occupational Exposure Limits Components**

	Type	Value
Tantalum (CAS 7440-25-7)	STEL	10 mg/m <sup>3</sup>
	TWA	5 mg/m <sup>3</sup>

**Latvia. OELs. Occupational exposure limit values of chemical substances in work environment**

Material	Type	Value	Form
Tantalum Product	TWA	2 mg/m <sup>3</sup>	Dust.
		2 mg/m <sup>3</sup>	

Components	Type	Value	Form
Tantalum (CAS 7440-25-7)	TWA	2 mg/m <sup>3</sup>	Dust.
		2 mg/m <sup>3</sup>	

**Lithuania. OELs. Limit Values for Chemical Substances, General Requirements**

Material	Type	Value
Tantalum Product	TWA	10 mg/m <sup>3</sup>

Components	Type	Value
Tantalum (CAS 7440-25-7)	TWA	10 mg/m <sup>3</sup>

**Norway. Administrative Norms for Contaminants in the Workplace**

Material	Type	Value	Form
Tantalum Product	TLV	5 mg/m <sup>3</sup>	Respirable dust.
		10 mg/m <sup>3</sup>	Total dust.

Components	Type	Value	Form
Tantalum (CAS 7440-25-7)	TLV	5 mg/m <sup>3</sup>	Respirable dust.
		10 mg/m <sup>3</sup>	Total dust.

**Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817**

Material	Type	Value
Tantalum Product	TWA	5 mg/m <sup>3</sup>

Components	Type	Value
Tantalum (CAS 7440-25-7)	TWA	5 mg/m <sup>3</sup>

**Romania. OELs. Protection of workers from exposure to chemical agents at the workplace**

Material	Type	Value
Tantalum Product	STEL	10 mg/m <sup>3</sup>
	TWA	5 mg/m <sup>3</sup>

Components	Type	Value
Tantalum (CAS 7440-25-7)	STEL	10 mg/m <sup>3</sup>
	TWA	5 mg/m <sup>3</sup>

**Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents**

Material	Type	Value	Form
Tantalum Product	TWA	4 mg/m <sup>3</sup>	Inhalable fraction.
		1,5 mg/m <sup>3</sup>	Respirable fraction.

Components	Type	Value	Form
Tantalum (CAS 7440-25-7)	TWA	4 mg/m <sup>3</sup>	Inhalable fraction.
		1,5 mg/m <sup>3</sup>	Respirable fraction.

**Spain. Occupational Exposure Limits**

Material	Type	Value	Form
Tantalum Product	TWA	3 mg/m <sup>3</sup>	Respirable fraction.
		10 mg/m <sup>3</sup>	Inhalable fraction.

Components	Type	Value	Form
Tantalum (CAS 7440-25-7)	TWA	3 mg/m <sup>3</sup>	Respirable fraction.

**Spain. Occupational Exposure Limits Components****Type****Value****Form**10 mg/m<sup>3</sup>

Inhalable fraction.

**Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)****Material****Type****Value****Form**

Tantalum Product

TWA

5 mg/m<sup>3</sup>

Inhalable dust.

2,5 mg/m<sup>3</sup>

Respirable dust.

**Components****Type****Value****Form**

Tantalum (CAS 7440-25-7)

TWA

5 mg/m<sup>3</sup>

Inhalable dust.

2,5 mg/m<sup>3</sup>

Respirable dust.

**Switzerland. SUVA Grenzwerte am Arbeitsplatz****Material****Type****Value****Form**

Tantalum Product

TWA

5 mg/m<sup>3</sup>

Inhalable fraction.

**Components****Type****Value****Form**

Tantalum (CAS 7440-25-7)

TWA

5 mg/m<sup>3</sup>

Inhalable fraction.

**UK. EH40 Workplace Exposure Limits (WELs)****Material****Type****Value**

Tantalum Product

STEL

10 mg/m<sup>3</sup>

TWA

5 mg/m<sup>3</sup>**Components****Type****Value**

Tantalum (CAS 7440-25-7)

STEL

10 mg/m<sup>3</sup>

TWA

5 mg/m<sup>3</sup>**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Recommended monitoring procedures**

Not available.

**Derived no effect levels (DNELs)**

Not available.

**Predicted no effect concentrations (PNECs)**

Not available.

**8.2. Exposure controls****Appropriate engineering controls**

Not available.

**Individual protection measures, such as personal protective equipment****General information**

Not available.

**Eye/face protection**

Not available.

**Skin protection****- Hand protection**

Not available.

**- Other**

Not available.

**Respiratory protection**

Not available.

**Thermal hazards**

Not available.

**Hygiene measures**

Not available.

**Environmental exposure controls**

Not available.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties****Appearance****Physical state**

Solid.

**Form**

Not available.

**Colour**

Not available.

**Odour**

Not available.

**Odour threshold**

Not available.

**pH**

Not available.

<b>Melting point/freezing point</b>	2996 °C (5424,8 °F) estimated 2996 °C (5424,8 °F)
<b>Initial boiling point and boiling range</b>	5429 °C (9804,2 °F) estimated 5429 °C (9804,2 °F)
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Vapour pressure</b>	< 0,0000001 kPa (25 °C (77 °F)) 0,00001 hPa estimated
<b>Vapour density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Insoluble
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Explosive properties</b>	Not available.
<b>Oxidising properties</b>	Not available.
<b>9.2. Other information</b>	
<b>Density</b>	15,55 g/cm <sup>3</sup> estimated 14,49 g/cm <sup>3</sup> 16,60 g/cm <sup>3</sup>
<b>Molecular formula</b>	Ta
<b>Molecular weight</b>	180,95 g/mol
<b>Specific gravity</b>	15,55 estimated 14,49 16,6

## SECTION 10: Stability and reactivity

<b>10.1. Reactivity</b>	Not available.
<b>10.2. Chemical stability</b>	Not available.
<b>10.3. Possibility of hazardous reactions</b>	Not available.
<b>10.4. Conditions to avoid</b>	Not available.
<b>10.5. Incompatible materials</b>	Not available.
<b>10.6. Hazardous decomposition products</b>	Not available.

## SECTION 11: Toxicological information

<b>General information</b>	Not available.
<b>Information on likely routes of exposure</b>	
<b>Inhalation</b>	Not available.
<b>Skin contact</b>	Not available.
<b>Eye contact</b>	Not available.
<b>Ingestion</b>	Not available.
<b>Symptoms</b>	Not available.
<b>11.1. Information on toxicological effects</b>	
<b>Acute toxicity</b>	No data available.
<b>Skin corrosion/irritation</b>	Not available.

<b>Serious eye damage/eye irritation</b>	Not available.
<b>Respiratory sensitisation</b>	Not available.
<b>Skin sensitisation</b>	Not available.
<b>Germ cell mutagenicity</b>	Not available.

#### **Carcinogenicity**

##### **Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)**

Not listed.

<b>Reproductive toxicity</b>	Not available.
<b>Specific target organ toxicity - single exposure</b>	Not available.
<b>Specific target organ toxicity - repeated exposure</b>	Not available.
<b>Aspiration hazard</b>	Not available.
<b>Mixture versus substance information</b>	Not available.
<b>Other information</b>	Not available.

### **SECTION 12: Ecological information**

<b>12.1. Toxicity</b>	No toxicity data noted for the ingredient(s).
<b>12.2. Persistence and degradability</b>	Not available.
<b>12.3. Bioaccumulative potential</b>	Not available.
<b>Partition coefficient n-octanol/water (log Kow)</b>	Not available.
<b>Bioconcentration factor (BCF)</b>	Not available.
<b>12.4. Mobility in soil</b>	Not available.
<b>12.5. Results of PBT and vPvB assessment</b>	Not a PBT or vPvB substance or mixture.
<b>12.6. Other adverse effects</b>	Not available.

### **SECTION 13: Disposal considerations**

#### **13.1. Waste treatment methods**

<b>Residual waste</b>	Not available.
<b>Contaminated packaging</b>	Not available.
<b>EU waste code</b>	Not available.

### **SECTION 14: Transport information**

#### **ADR**

14.1. - 14.6.: Not regulated as dangerous goods.

#### **RID**

14.1. - 14.6.: Not regulated as dangerous goods.

#### **ADN**

14.1. - 14.6.: Not regulated as dangerous goods.

#### **IATA**

14.1. - 14.6.: Not regulated as dangerous goods.

#### **IMDG**

14.1. - 14.6.: Not regulated as dangerous goods.

### **SECTION 15: Regulatory information**

#### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

##### **EU regulations**

###### **Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**

Not listed.

###### **Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended**

Not listed.



**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**

Tantalum (CAS 7440-25-7)

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Not listed.

#### **Authorisations**

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

#### **Restrictions on use**

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Not listed.

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**

Not listed.

#### **Other EU regulations**

**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**

Not listed.

#### **National regulations**

Not available.

#### **15.2. Chemical safety assessment**

Not available.

### **SECTION 16: Other information**

#### **List of abbreviations**

Not available.

#### **References**

Not available.

#### **Training information**

Not available.

#### **Disclaimer**

To avoid any misunderstandings or incorrect assumptions by the receiver of the safety information, it should be made clear that the supplied information is not in the form of a Safety Data Sheet (SDS), but is actually a voluntary Product Information Sheet closely following the guidelines of the Safety Data Sheet – COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 (REACH/SDS).