

**1: Identification**

**Product identifier**

Product name: **Tantalum foil**

Stock number: 10351

CAS Number:

7440-25-7

EC number:

231-135-5

Relevant identified uses of the substance or mixture and uses advised against.  
Identified use: SU24 Scientific research and development

**Details of the supplier of the safety data sheet**

**Manufacturer/Supplier:**

Alfa Aesar, A Johnson Matthey Company

Johnson Matthey Catalog Company, Inc.

30 Bond Street

Ward Hill, MA 01835-8099

Tel: 800-343-0660

Fax: 800-322-4757

Email: tech@alfa.com

www.alfa.com

Information Department: Health, Safety and Environmental Department

Emergency telephone number:

During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789.

**2: Hazard(s) identification**

**Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008

The substance is not classified as hazardous to health or the environment according to the CLP regulation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable

Information concerning particular hazards for human and environment: No information known.

Hazards not otherwise classified No information known.

**Label elements**

Labelling according to Regulation (EC) No 1272/2008 Not applicable

Hazard pictograms Not applicable

Signal word Not applicable

Hazard statements Not applicable

WHMIS classification Not controlled

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

HEALTH 0 Health (acute effects) = 0

FIRE 0 Flammability = 0

REACTIVITY 0 Physical Hazard = 0

**Other hazards**

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

**3: Composition/information on ingredients**

Chemical characterization: Substances

CAS# Description:

7440-25-7 Tantalum

Identification number(s):

EC number: 231-135-5

**4: First-aid measures**

**Description of first aid measures**

General information No special measures required.

After inhalation Seek medical treatment in case of complaints.

After skin contact Generally the product does not irritate the skin.

After eye contact Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing If symptoms persist consult doctor.

Information for doctor

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed No further relevant information available.

**5: Fire-fighting measures**

**Extinguishing media**

Suitable extinguishing agents Special powder for metal fires. Do not use water.

For safety reasons unsuitable extinguishing agents Water

Special hazards arising from the substance or mixture

If this product is involved in a fire, the following can be released:

Titanium oxides

Advice for firefighters

Protective equipment: No special measures required.

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**6: Accidental release measures**

Personal precautions, protective equipment and emergency procedures Not required.  
Environmental precautions:  
Do not allow material to be released to the environment without proper governmental permits.  
Do not allow product to reach sewage system or any water course.  
Do not allow to penetrate the ground/soil.  
Methods and material for containment and cleaning up: Pick up mechanically.  
Prevention of secondary hazards: No special measures required.  
Reference to other sections  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

**7: Handling and storage**

Handling  
Precautions for safe handling  
Keep container tightly sealed.  
Store in cool, dry place in tightly closed containers.  
Information about protection against explosions and fires: No special measures required.  
Conditions for safe storage, including any incompatibilities  
Storage  
Requirements to be met by storerooms and receptacles: No special requirements.  
Information about storage in one common storage facility: Not required.  
Further information about storage conditions:  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed containers.  
Specific end use(s) No further relevant information available.

**8: Exposure controls/personal protection**

Additional information about design of technical systems: No further data; see section 7.

**Control parameters**

Components with limit values that require monitoring at the workplace:

7440-25-7 Tantalum (100.0%)

PEL (USA)	Long-term value: 5 mg/m <sup>3</sup> metal
REL (USA)	Short-term value: 10 mg/m <sup>3</sup> Long-term value: 5 mg/m <sup>3</sup> Metal
TLV (USA)	metal; TLV withdrawn due to insufficient data
EL (Canada)	Long-term value: 5 mg/m <sup>3</sup> metal
EV (Canada)	Long-term value: 10 mg/m <sup>3</sup> metal and oxide (total dust)

Additional information: No data

**Exposure controls**

Personal protective equipment  
General protective and hygienic measures  
The usual precautionary measures for handling chemicals should be followed.  
Maintain an ergonomically appropriate working environment.  
Breathing equipment: Not required.  
Protection of hands: Not required.  
Penetration time of glove material (in minutes) Not determined  
Eye protection: Safety glasses  
Body protection: Protective work clothing.

**9: Physical and chemical properties**

Information on basic physical and chemical properties

**General Information**

**Appearance:**

Form: Solid in various forms  
Color: Grey to silver  
Odor: Odorless  
Odor threshold: Not determined.

pH-value: Not applicable.

**Change in condition**

Melting point/Melting range: 2996 °C (5425 °F)  
Boiling point/Boiling range: 5429 °C (9804 °F)  
Sublimation temperature / start: Not determined  
Flammability (solid, gaseous): Not determined.  
Ignition temperature: Not determined  
Decomposition temperature: Not determined  
Auto igniting: Not determined.

Danger of explosion: Not determined.

**Explosion limits:**

Lower: Not determined  
Upper: Not determined  
Vapor pressure: Not applicable.  
Density at 20 °C (68 °F): 16.69 g/cm<sup>3</sup> (139.278 lbs/gal)  
Relative density: Not determined.

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Vapor density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with	
Water:	Insoluble
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
dynamic:	Not applicable.
kinematic:	Not applicable.
Other information	No further relevant information available.

**10: Stability and reactivity**

Reactivity No information known.  
 Chemical stability Stable under recommended storage conditions.  
 Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications.  
 Possibility of hazardous reactions No dangerous reactions known  
 Incompatible materials: No information known.  
 Hazardous decomposition products: Titanium oxides

**11: Toxicological information**

Information on toxicological effects  
 Acute toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.  
 LD/LC50 values that are relevant for classification: No data  
 Skin irritation or corrosion: No irritant effect.  
 Eye irritation or corrosion: No irritant effect.  
 Sensitization: No sensitizing effects known.  
 Germ cell mutagenicity: No effects known.  
 Carcinogenicity:  
 No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.  
 The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for this substance.  
 Reproductive toxicity: No effects known.  
 Specific target organ system toxicity - repeated exposure: No effects known.  
 Specific target organ system toxicity - single exposure: No effects known.  
 Aspiration hazard: No effects known.  
 Subacute to chronic toxicity: No effects known.  
 Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

**12: Ecological information**

Toxicity  
 Aquatic toxicity: No further relevant information available.  
 Persistence and degradability No further relevant information available.  
 Bioaccumulative potential No further relevant information available.  
 Mobility in soil No further relevant information available.  
 Additional ecological information:  
 General notes:  
 Do not allow material to be released to the environment without proper governmental permits.  
 Do not allow undiluted product or large quantities to reach ground water, water course or sewage system.  
 Avoid transfer into the environment.  
 Results of PBT and vPvB assessment  
 PBT: Not applicable.  
 vPvB: Not applicable.  
 Other adverse effects No further relevant information available.

**13: Disposal considerations**

Waste treatment methods  
 Recommendation Consult state, local or national regulations to ensure proper disposal.  
 Uncleaned packagings:  
 Recommendation: Disposal must be made according to official regulations.

**14: Transport information**

UN-Number	
DOT, ADN, IMDG, IATA	Not applicable
UN proper shipping name	
DOT, ADN, IMDG, IATA	Not applicable
Transport hazard class(es)	
DOT, ADR, ADN, IMDG, IATA	
Class	Not applicable
Packing group	
DOT, IMDG, IATA	Not applicable
Environmental hazards:	Not applicable.
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
DOT	
Marine Pollutant (DOT):	No

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