

# SAFETY DATA SHEET

Version 6.1  
Revision Date 15.04.2022  
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : Tungsten

Product Number : 267554  
Brand : Aldrich  
CAS-No. : 7440-33-7

### 1.2 Other means of identification

No data available

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

Identified uses : For R&D use only. Not for pharmaceutical, household or other uses.

### 1.4 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Pty. Ltd.  
Suite 1, Level 1, Building B  
11 Talavera Road  
MACQUARIE PARK NSW 2113  
AUSTRALIA

Telephone : +61 1800 800 097

### 1.5 Emergency telephone

Emergency Phone # : Free call (24/7): 1800 448 465  
Int'l (24/7): +61 2 9037 2994  
(CHEMTREC)

## SECTION 2: Hazards identification

### 2.1 GHS Classification

Not a hazardous substance or mixture.

### 2.2 GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

### 2.3 Other hazards - none

## SECTION 3: Composition/information on ingredients

Substance / Mixture : Substance

### 3.1 Substances

Formula : W  
Molecular weight : 183.84 g/mol  
CAS-No. : 7440-33-7

Aldrich- 267554

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The life science business of Merck operates as MilliporeSigma in the US and Canada

**MERCK**

**Hazardous ingredients**

Component	Classification	Concentration
<b>Tungsten rod, foil, wire, mesh, nut, lump, tube, washer, insulating wire (where insulating property comes from the presence of insulating polymers like Polyimide, Polyester, PTFE (Polytetrafluoroethylene), Nylon etc. along with the metal )</b>		
		<= 100 %

**SECTION 4: First aid measures****4.1 Description of first-aid measures****If inhaled**

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

**In case of skin contact**

Wash off with soap and plenty of water.

**In case of eye contact**

Flush eyes with water as a precaution.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water.

**4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media**

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

**5.2 Special hazards arising from the substance or mixture**

Tungsten oxide

**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**5.4 Further information**

No data available

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Avoid dust formation. Avoid breathing vapors, mist or gas.  
For personal protection see section 8.

**6.2 Environmental precautions**

No special environmental precautions required.

**6.3 Methods and materials for containment and cleaning up**  
Sweep up and shovel. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**  
For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Advice on protection against fire and explosion

Provide appropriate exhaust ventilation at places where dust is formed.

#### Hygiene measures

General industrial hygiene practice.

For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage conditions

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

#### Storage class

Storage class (TRGS 510): 13: Non Combustible Solids

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.3 no other specific uses are stipulated.

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Ingredients with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Tungsten rod, foil, wire, mesh, nut, lump, tube, washer, insulating wire (where insulating property comes from the presence of insul	7440-33-7	PEL (long term)	5 mg/m <sup>3</sup>	Singapore. Workplace Safety and Health Act - First Schedule Permissible Exposure Limits of Toxic Substances
		PEL (short term)	10 mg/m <sup>3</sup>	Singapore. Workplace Safety and Health Act - First Schedule Permissible Exposure Limits of Toxic Substances

### 8.2 Exposure controls

#### Appropriate engineering controls

General industrial hygiene practice.

#### Personal protective equipment

##### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin 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.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

**Body Protection**

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

No special environmental precautions required.

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

a) Physical state	Wire
b) Color	dark green
c) Odor	odorless
d) Melting point/freezing point	Melting point/range: 3,410 °C - lit.
e) Initial boiling point and boiling range	5,900 °C
f) Flammability (solid, gas)	No data available
g) Upper/lower flammability or explosive limits	No data available
h) Flash point	Not applicable
i) Autoignition temperature	310 °C
j) Decomposition temperature	No data available
k) pH	No data available
l) Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
m) Water solubility	slightly soluble
n) Partition coefficient:	No data available

n-octanol/water

- |                             |                                  |
|-----------------------------|----------------------------------|
| o) Vapor pressure           | No data available                |
| p) Density                  | 19.35 g/cm <sup>3</sup> at 20 °C |
| Relative density            | No data available                |
| q) Relative vapor density   | No data available                |
| r) Particle characteristics | No data available                |
|                             |                                  |
| s) Explosive properties     | No data available                |
| t) Oxidizing properties     | No data available                |

## 9.2 Other safety information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Air

### 10.5 Incompatible materials

Bromine, chloride trifluoride, Potassium dichromate, Nitryl Flouride, Fluorine, Oxygen difluoride, Hydrogen sulfide gas, Peroxides, lead oxide, Oxidizing agents

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Oral: No data available

Inhalation: No data available

Dermal: No data available

#### 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**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**11.2 Additional Information**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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**SECTION 12: Ecological information****12.1 Toxicity**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**12.6 Endocrine disrupting properties**

No data available

**12.7 Other adverse effects**

No data available

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**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

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**SECTION 14: Transport information****14.1 UN number**

ADR/RID: -

IMDG: -

IATA-DGR: -

#### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods  
IMDG: Not dangerous goods  
IATA-DGR: Not dangerous goods

#### 14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA-DGR: -

#### 14.4 Packaging group

ADR/RID: - IMDG: - IATA-DGR: -

#### 14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA-DGR: no

#### 14.6 Special precautions for user

#### 14.7 Incompatible materials

Bromine, chloride trifluoride, Potassium dichromate, Nitryl Flouride, Fluorine, Oxygen difluoride, Hydrogen sulfide gas, Peroxides, lead oxide, Oxidizing agents

#### Further information

Not classified as dangerous in the meaning of transport regulations.

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### SECTION 15: Regulatory information

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

##### Notification status

**DSL:** This product contains the following components that are not on the Canadian DSL nor NDSL. - Tungsten rod, foil, wire, mesh, nut, lump, tube, washer, insulating wire (where insulating property comes from the presence of insul

**ENCS:** Not in compliance with the inventory - Tungsten rod, foil, wire, mesh, nut, lump, tube, washer, insulating wire (where insulating property comes from the presence of insul

**ISHL:** Not in compliance with the inventory - Tungsten rod, foil, wire, mesh, nut, lump, tube, washer, insulating wire (where insulating property comes from the presence of insul

**KECI:** On the inventory, or in compliance with the inventory

**NZIoC:** Not in compliance with the inventory - Tungsten rod, foil, wire, mesh, nut, lump, tube, washer, insulating wire (where insulating property comes from the presence of insul

**PICCS:** Not in compliance with the inventory - Tungsten rod, foil, wire, mesh, nut, lump, tube, washer, insulating wire (where insulating property comes from the presence of insul

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### SECTION 16: Other information

#### Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the

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