

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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Hazardous ingredients

Component	Classification	Concentration
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)		
		<= 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.

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.

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 ³	Singapore. Workplace Safety and Health Act - First Schedule Permissible Exposure Limits of Toxic Substances
		PEL (short term)	10 mg/m ³	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.

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/cm³ 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

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

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.

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

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.

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.

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

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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