



SAFETY DATA SHEET

MATERION

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

1.1. Product identifier

Trade name or designation of the mixture Nickel Tungsten Products
Registration number -
Document number WNT
Synonyms None.
Issue date 19-February-2020

1.3. Details of the supplier of the safety data sheet

Supplier

Company name Materion Advanced Materials Technologies and Services Inc.
Address 2978 Main Street
Buffalo, NY 14214
United States
Division Buffalo
Telephone 716-837-1000
e-mail Not available.
Contact person Not available.

1.4. Emergency telephone number 800-424-9300 Chemtrec

Version number 01

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: Tungsten
Hazard pictograms None.
Signal word Warning
Hazard statements
H351 Suspected of causing cancer.
H400 Very toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P308 + P313 IF exposed or concerned: Get medical advice/attention.
P391 Collect spillage.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information % of the mixture consists of component(s) of unknown acute hazards to the aquatic environment.
% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

2.3. Other hazards None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

| Chemical name | % | CAS-No. / EC No. | REACH Registration No. | Index No. | Notes |
|------------------------|-------|------------------------|------------------------|-----------|-------|
| Tungsten | 3 - 6 | 7440-33-7 231-143-9 | - | - | |
| Classification: | - | | | | |

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 Not available.

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

| Components | Type | Value | Form |
|--------------------------|------|----------------------|---------------------|
| Tungsten (CAS 7440-33-7) | MAK | 5 mg/m ³ | Inhalable fraction. |
| | STEL | 10 mg/m ³ | Inhalable fraction. |

Belgium. Exposure Limit Values.

| Components | Type | Value |
|--------------------------|------|----------------------|
| Tungsten (CAS 7440-33-7) | STEL | 10 mg/m ³ |
| | TWA | 5 mg/m ³ |

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

| Components | Type | Value |
|--------------------------|------|----------------------|
| Tungsten (CAS 7440-33-7) | STEL | 10 mg/m ³ |
| | TWA | 1 mg/m ³ |

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

| Components | Type | Value |
|--------------------------|------|---------------------|
| Tungsten (CAS 7440-33-7) | MAC | 5 mg/m ³ |
| | STEL | 3 mg/m ³ |

Denmark. Exposure Limit Values

| Components | Type | Value | Form |
|--------------------------|------|---------------------|-------|
| Tungsten (CAS 7440-33-7) | TLV | 5 mg/m ³ | Dust. |

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

| Components | Type | Value |
|--------------------------|------|---------------------|
| Tungsten (CAS 7440-33-7) | TWA | 5 mg/m ³ |

Finland. Workplace Exposure Limits

| Components | Type | Value |
|--------------------------|------|---------------------|
| Tungsten (CAS 7440-33-7) | TWA | 5 mg/m ³ |

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

| Components | Type | Value | Form |
|--------------------------|------|---------------------|-------|
| Tungsten (CAS 7440-33-7) | TWA | 5 mg/m ³ | Dust. |

Ireland. Occupational Exposure Limits

| Components | Type | Value |
|--------------------------|------|----------------------|
| Tungsten (CAS 7440-33-7) | STEL | 10 mg/m ³ |
| | TWA | 5 mg/m ³ |

Italy. Occupational Exposure Limits

| Components | Type | Value | Form |
|--------------------------|------|---------------------|----------------------|
| Tungsten (CAS 7440-33-7) | TWA | 3 mg/m ³ | Respirable fraction. |

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

| Components | Type | Value |
|--------------------------|------|---------------------|
| Tungsten (CAS 7440-33-7) | TWA | 5 mg/m ³ |

Norway. Administrative Norms for Contaminants in the Workplace

| Components | Type | Value |
|--------------------------|------|---------------------|
| Tungsten (CAS 7440-33-7) | TLV | 5 mg/m ³ |

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

| Components | Type | Value | Form |
|--------------------------|------|---------------------|---------------------|
| Tungsten (CAS 7440-33-7) | TWA | 5 mg/m ³ | Inhalable fraction. |

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

| Components | Type | Value |
|--------------------------|------|----------------------|
| Tungsten (CAS 7440-33-7) | STEL | 10 mg/m ³ |
| | TWA | 5 mg/m ³ |

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

| Components | Type | Value |
|--------------------------|------|---------------------|
| Tungsten (CAS 7440-33-7) | STEL | 6 mg/m ³ |
| | TWA | 2 mg/m ³ |

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

| Components | Type | Value |
|--------------------------|------|---------------------|
| Tungsten (CAS 7440-33-7) | TWA | 5 mg/m ³ |

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

| Components | Type | Value | Form |
|--------------------------|------|---------------------|---------------------|
| Tungsten (CAS 7440-33-7) | TWA | 5 mg/m ³ | Inhalable fraction. |

Spain. Occupational Exposure Limits

| Components | Type | Value |
|--------------------------|------|----------------------|
| Tungsten (CAS 7440-33-7) | STEL | 10 mg/m ³ |
| | TWA | 5 mg/m ³ |

Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)

| Components | Type | Value | Form |
|--------------------------|------|---------------------|-------------|
| Tungsten (CAS 7440-33-7) | TWA | 5 mg/m ³ | Total dust. |

Switzerland. SUVA Grenzwerte am Arbeitsplatz

| Components | Type | Value | Form |
|--------------------------|------|---------------------|---------------------|
| Tungsten (CAS 7440-33-7) | TWA | 1 mg/m ³ | Inhalable fraction. |

UK. EH40 Workplace Exposure Limits (WELs)

| Components | Type | Value |
|--------------------------|------|----------------------|
| Tungsten (CAS 7440-33-7) | STEL | 10 mg/m ³ |
| | TWA | 5 mg/m ³ |

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. |
| Melting point/freezing point | 3410 °C (6170 °F) estimated |
| Initial boiling point and boiling range | 5900 °C (10652 °F) estimated |
| Flash point | Not available. |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or explosive limits | |
| Flammability limit - lower (%) | Not available. |
| Flammability limit - upper (%) | Not available. |
| Vapour pressure | 0,00001 hPa estimated |
| Vapour density | Not available. |
| Relative density | Not available. |
| Solubility(ies) | |
| Solubility (water) | Not available. |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information

| | |
|-------------------------|-----------------------------------|
| Density | 18,70 g/cm ³ estimated |
| Specific gravity | 18,7 estimated |

SECTION 10: Stability and reactivity

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

SECTION 11: Toxicological information

General information Not available.

Information on likely routes of exposure

| | |
|---------------------|----------------|
| Inhalation | Not available. |
| Skin contact | Not available. |
| Eye contact | Not available. |
| Ingestion | Not available. |
| Symptoms | Not available. |

11.1. Information on toxicological effects

| | |
|--|--------------------|
| Acute toxicity | No data available. |
| Skin corrosion/irritation | Not available. |
| Serious eye damage/eye irritation | Not available. |
| Respiratory sensitisation | Not available. |
| Skin sensitisation | Not available. |
| Germ cell mutagenicity | 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.

| | |
|---|----------------|
| Reproductive toxicity | Not available. |
| Specific target organ toxicity - single exposure | Not available. |
| Specific target organ toxicity - repeated exposure | Not available. |
| Aspiration hazard | Not available. |
| Mixture versus substance information | Not available. |
| Other information | Not available. |

SECTION 12: Ecological information

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|-------------------------------|----------------|
| Residual waste | Not available. |
| Contaminated packaging | Not available. |
| EU waste code | 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

Not listed.

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.

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