



Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Issue date: 04/06/2020 Revision date: 13/02/2024 Supersedes version of: 04/06/2020 Version: 2.0

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

1.1. Product identifier

Product form	: Substance
Substance name	: Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA
Chemical name	: Tungsten
EC-No.	: 321-143-9
CAS-No.	: 7440-33-7
Product code	: R37010
Product group	: End product

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

1.2.1. Relevant identified uses

Main use category	: Professional use
Use of the substance/mixture	: Laboratory chemicals
Function or use category	: Laboratory chemicals

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

OEA Labs Ltd
The Generator Quay House The Gallery
Kings Wharf The Quay
EX2 4AN Exeter – Devon
United Kingdom
T +44(0)1579 384174
technical@oealabs.com - oealabs.com

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazardous to the aquatic environment – Acute Hazard, Category 1	H400
Hazardous to the aquatic environment – Chronic Hazard, Category 1	H410
Full text of H- and EUH-statements: see section 16	

Adverse physicochemical, human health and environmental effects

Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS09

Signal word (CLP)

: Warning

Hazard statements (CLP)

: H410 - Very toxic to aquatic life with long lasting effects.



Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Precautionary statements (CLP) : P391 - Collect spillage.

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA
CAS-No. : 7440-33-7
EC-No. : 321-143-9

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Tungsten	CAS-No.: 7440-33-7 EC-No.: 231-143-9	100	Not classified

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

No additional information available

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.



Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Mechanically recover the product.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA (7440-33-7)

Austria - Occupational Exposure Limits

Local name	Wolfram
MAK (OEL TWA)	5 mg/m ³ (E)
MAK (OEL STEL)	10 mg/m ³ (E, 4x 15(Miw) min)
Regulatory reference	BGBl. II Nr. 156/2021

Bulgaria - Occupational Exposure Limits

Local name	Волфрам
OEL TWA	1 mg/m ³ (разтв. съединения (като волфрам)) 5 mg/m ³ (неразтв. съединения (като волфрам))



Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA (7440-33-7)	
OEL STEL	3 mg/m ³ (разтв. съединения (като волфрам)) 10 mg/m ³ (неразтв. съединения (като волфрам))
Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр. 47 от 2021 г., в сила от 04.06.2021 г.)
Denmark - Occupational Exposure Limits	
Local name	Wolfram, pulver, støv og uopløselige forbindelser
OEL TWA [1]	5 mg/m ³ beregnet som W
Regulatory reference	BEK nr 202 af 21/02/2023
Estonia - Occupational Exposure Limits	
Local name	Volfram, metall, vähelahustuvad ühendid (arvutatudvolframile)
OEL TWA	5 mg/m ³
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 21.12.2022, 3)
Finland - Occupational Exposure Limits	
Local name	Volframi, metalli
HTP (OEL TWA) [1]	5 mg/m ³ W
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveysministeriö)
Poland - Occupational Exposure Limits	
Local name	Wolfram
NDS (OEL TWA)	5 mg/m ³ frakcja wdychalna
Remark	Frakcja wdychalna – frakcja aerozolu wnikaająca przez nos i usta, która po zdeponowaniu w drogach oddechowych stwarza zagrożenie dla zdrowia.
Regulatory reference	Dz. U. 2018 poz. 1286 wraz z późn. zm.
Portugal - Occupational Exposure Limits	
Local name	Tungsténio
OEL TWA	5 mg/m ³ Metal e compostos insolúveis, expresso em W 1 mg/m ³ Compostos solúveis, expresso em W
OEL STEL	10 mg/m ³ Metal e compostos insolúveis, expresso em W 3 mg/m ³ Compostos solúveis, expresso em W
Regulatory reference	Norma Portuguesa NP 1796:2014
Slovakia - Occupational Exposure Limits	
Local name	Wolfrám
NPHV (OEL TWA) [1]	5 mg/m ³ nerozpustné zlúčeniny 1 mg/m ³ rozpustné zlúčeniny
Regulatory reference	Nariadenie vlády č. 355/2006 Z. z. (236/2020 Z. z.)
Sweden - Occupational Exposure Limits	
Local name	Volfram, metall och svårslösliga föreningar (som W)
NGV (OEL TWA)	5 mg/m ³ totaldamm



Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA (7440-33-7)	
Remark	3 (Med totaldamm menas de partiklar (aerosoler) som fastnar på ett filter i den provtagare som beskrivs i Metodserien, Provtagning av totaldamm och respirabelt damm, Metod nr 1010, Arbetskyddsstyrelsen, numera Arbetsmiljöverket. Filterdiameteren är normalt 37 mm, men kan även vara 25 mm. Trots sitt namn provtas inte den totala mängden luftburna partiklar med denna metod)
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
United Kingdom - Occupational Exposure Limits	
Local name	Tungsten
WEL TWA (OEL TWA) [1]	1 mg/m ³ and compounds (as W), soluble compounds 5 mg/m ³ and compounds (as W), insoluble compounds and others
WEL STEL (OEL STEL)	3 mg/m ³ and compounds (as W), soluble compounds 10 mg/m ³ and compounds (as W), insoluble compounds and others
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
Iceland - Occupational Exposure Limits	
Local name	Wolfram, duft, ryk og torleysnaleg sambönd, sem W
OEL TWA	5 mg/m ³
Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009)
USA - ACGIH - Occupational Exposure Limits	
Local name	Tungsten and compounds, in the absence of Cobalt, as W
ACGIH OEL TWA	3 mg/m ³ (R - Respirable particulate matter)
Remark (ACGIH)	TLV® Basis: Lung dam
Regulatory reference	ACGIH 2024
Tungsten (7440-33-7)	
Austria - Occupational Exposure Limits	
Local name	Wolfram
MAK (OEL TWA)	5 mg/m ³ (E)
MAK (OEL STEL)	10 mg/m ³ (E, 4x 15(Miw) min)
Regulatory reference	BGBI. II Nr. 156/2021
Belgium - Occupational Exposure Limits	
Local name	Tungstène # Wolfraam
OEL TWA	5 mg/m ³ (composés insolubles) (en W) # (onoplosb. verb. als W) 1 mg/m ³ (composés solubles) (en W) # (oplosb. verb. als W)
OEL STEL	10 mg/m ³ (composés insolubles) (en W) # (onoplosb. verb. als W) 3 mg/m ³ (composés solubles) (en W) # (oplosb. verb. als W)
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
Bulgaria - Occupational Exposure Limits	
Local name	Волфрам
OEL TWA	1 mg/m ³ (разтв. съединения (като волфрам)) 5 mg/m ³ (неразтв. съединения (като волфрам))



Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Tungsten (7440-33-7)	
OEL STEL	3 mg/m ³ (разтв. съединения (като волфрам)) 10 mg/m ³ (неразтв. съединения (като волфрам))
Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр. 47 от 2021 г., в сила от 04.06.2021 г.)
Denmark - Occupational Exposure Limits	
Local name	Wolfram, pulver, støv og uopløselige forbindelser
OEL TWA [1]	5 mg/m ³ beregnet som W
Regulatory reference	BEK nr 202 af 21/02/2023
Estonia - Occupational Exposure Limits	
Local name	Volfram, metall, vähelahustuvad ühendid (arvutatudvolframile)
OEL TWA	5 mg/m ³
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 21.12.2022, 3)
Finland - Occupational Exposure Limits	
Local name	Volframi, metalli
HTP (OEL TWA) [1]	5 mg/m ³ W
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveysministeriö)
Ireland - Occupational Exposure Limits	
Local name	Tungsten & compounds (as W)
OEL TWA [1]	1 mg/m ³ soluble compounds 5 mg/m ³ metal and insoluble compounds
OEL STEL	3 mg/m ³ soluble compounds 10 mg/m ³ metal and insoluble compounds
Regulatory reference	Chemical Agents Code of Practice 2021
Poland - Occupational Exposure Limits	
Local name	Wolfram
NDS (OEL TWA)	5 mg/m ³ frakcja wdychalna
Remark	Frakcja wdychalna – frakcja aerozolu wnikaćca przez nos i usta, która po zdeponowaniu w drogach oddechowych stwarza zagrożenie dla zdrowia.
Regulatory reference	Dz. U. 2018 poz. 1286
Portugal - Occupational Exposure Limits	
Local name	Tungsténio
OEL TWA	5 mg/m ³ Metal e compostos insolúveis, expresso em W 1 mg/m ³ Compostos solúveis, expresso em W
OEL STEL	10 mg/m ³ Metal e compostos insolúveis, expresso em W 3 mg/m ³ Compostos solúveis, expresso em W
Regulatory reference	Norma Portuguesa NP 1796:2014
Romania - Occupational Exposure Limits	
Local name	Tungsten



Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Tungsten (7440-33-7)	
OEL TWA	2 mg/m ³
OEL STEL	6 mg/m ³
Regulatory reference	Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 53/2021)
Slovakia - Occupational Exposure Limits	
Local name	Wolfrám
NPHV (OEL TWA) [1]	5 mg/m ³ nerozpustné zlúčeniny 1 mg/m ³ rozpustné zlúčeniny
Regulatory reference	Nariadenie vlády č. 355/2006 Z. z. (236/2020 Z. z.)
Spain - Occupational Exposure Limits	
Local name	Tungsteno (Wolframio) metal
VLA-ED (OEL TWA) [1]	5 mg/m ³
VLA-EC (OEL STEL)	10 mg/m ³
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2023. INSHT
Sweden - Occupational Exposure Limits	
Local name	Volfram, metall och svårslösliga föreningar (som W)
NGV (OEL TWA)	5 mg/m ³ totaldamm
Remark	3 (Med totaldamm menas de partiklar (aerosoler) som fastnar på ett filter i den provtagare som beskrivs i Metodserien, Provtagning av totaldamm och respirabelt damm, Metod nr 1010, Arbetarskyddsstyrelsen, numera Arbetsmiljöverket. Filterdiameteren är normalt 37 mm, men kan även vara 25 mm. Trots sitt namn provtas inte den totala mängden luftburna partiklar med denna metod)
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
United Kingdom - Occupational Exposure Limits	
Local name	Tungsten
WEL TWA (OEL TWA) [1]	1 mg/m ³ and compounds (as W), soluble compounds 5 mg/m ³ and compounds (as W), insoluble compounds and others
WEL STEL (OEL STEL)	3 mg/m ³ and compounds (as W), soluble compounds 10 mg/m ³ and compounds (as W), insoluble compounds and others
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
Iceland - Occupational Exposure Limits	
Local name	Wolfram, duft, ryk og torleysnaleg sambönd, sem W
OEL TWA	5 mg/m ³
Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009)
North Macedonia - Occupational Exposure Limits	
Local name	Волфрам
OEL TWA	5 mg/m ³ (I) инхалабилна фракција – дел на вкупно суспендирани материји, кои работникот ги вдишува



Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Tungsten (7440-33-7)	
Regulatory reference	Правилник за минималните барања за безбедност и здравје при работа на вработени од ризици поврзани со изложување на хемиски супстанции („Службен весник на Република Македонија“ бр.46/10)
USA - ACGIH - Occupational Exposure Limits	
Local name	Tungsten and compounds, in the absence of Cobalt, as W
ACGIH OEL TWA	3 mg/m ³ (R - Respirable particulate matter)
Remark (ACGIH)	TLV® Basis: Lung dam
Regulatory reference	ACGIH 2023

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available



Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Grey.
Molecular mass	: 183.85 g/mol Source: HSDB
Odour	: odourless.
Odour threshold	: Not available
Melting point	: 3410 °C Source: HSDB
Freezing point	: Not applicable
Boiling point	: 5900 °C Source: ICSC
Flammability	: Non flammable.
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 0.000000197 mm Hg at 25°C Source: HSDB
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: 18.7 – 19.3 Source: HSDB
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).



Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA (7440-33-7)

LD50 oral rat	> 2000 mg/kg Source: ECHA
LD50 dermal rat	> 2000 mg/kg Source: ECHA
LC50 Inhalation - Rat (Dust/Mist)	> 5.4 mg/l Source: ECHA

Tungsten (7440-33-7)

LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 5.4 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
LC50 Inhalation - Rat (Dust/Mist)	> 5.4 mg/l Source: ECHA

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified

Tungsten (7440-33-7)

NOAEL (animal/male, F1)	≈ 160 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 443 (Extended One-Generation Reproductive Toxicity Study)
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

Tungsten (7440-33-7)

NOAEC (inhalation, rat, dust/mist/fume, 90 days)	> 0.652 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)
Aspiration hazard	: Not classified

Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA (7440-33-7)

Viscosity, kinematic	Not applicable
----------------------	----------------

11.2. Information on other hazards

No additional information available



Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.
 Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life.
 Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.
 Not rapidly degradable

Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA (7440-33-7)

LC50 - Fish [1]	> 181 mg/l Source: ECHA
EC50 - Crustacea [1]	> 0.163 mg/l Source: ECHA
EC50 72h - Algae [1]	> 17.7 mg/l Source: ECHA

Tungsten (7440-33-7)

LC50 - Fish [1]	> 181 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	> 163 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 17.7 mg/l Source: ECHA
NOEC chronic fish	≥ 9.8 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) Duration: '38 d'

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID



Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 3077	UN 3077	UN 3077	UN 3077	UN 3077
14.2. UN proper shipping name				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Tungsten)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Tungsten)	Environmentally hazardous substance, solid, n.o.s. (Tungsten)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Tungsten)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Tungsten)
Transport document description				
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Tungsten), 9, III, (-)	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Tungsten), 9, III, MARINE POLLUTANT	UN 3077 Environmentally hazardous substance, solid, n.o.s. (Tungsten), 9, III	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Tungsten), 9, III	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Tungsten), 9, III
14.3. Transport hazard class(es)				
9	9	9	9	9
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: M7
Special provisions (ADR)	: 274, 335, 375, 601
Limited quantities (ADR)	: 5kg
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P002, IBC08, LP02, R001
Special packing provisions (ADR)	: PP12, B3
Mixed packing provisions (ADR)	: MP10
Portable tank and bulk container instructions (ADR)	: T1, BK1, BK2, BK3
Portable tank and bulk container special provisions (ADR)	: TP33
Tank code (ADR)	: SGAV, LGBV
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V13
Special provisions for carriage - Bulk (ADR)	: VC1, VC2
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13
Hazard identification number (Kemler No.)	: 90



Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Orange plates	:	90 3077
---------------	---	---

Tunnel restriction code (ADR)	:	-
EAC code	:	2Z

Transport by sea

Special provisions (IMDG)	:	274, 335, 966, 967, 969
Limited quantities (IMDG)	:	5 kg
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	LP02, P002
Special packing provisions (IMDG)	:	PP12
IBC packing instructions (IMDG)	:	IBC08
IBC special provisions (IMDG)	:	B3
Tank instructions (IMDG)	:	BK1, BK2, BK3, T1
Tank special provisions (IMDG)	:	TP33
EmS-No. (Fire)	:	F-A
EmS-No. (Spillage)	:	S-F
Stowage category (IMDG)	:	A
Stowage and handling (IMDG)	:	SW23

Air transport

PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y956
PCA limited quantity max net quantity (IATA)	:	30kgG
PCA packing instructions (IATA)	:	956
PCA max net quantity (IATA)	:	400kg
CAO packing instructions (IATA)	:	956
CAO max net quantity (IATA)	:	400kg
Special provisions (IATA)	:	A97, A158, A179, A197, A215
ERG code (IATA)	:	9L

Inland waterway transport

Classification code (ADN)	:	M7
Special provisions (ADN)	:	274, 335, 375, 601
Limited quantities (ADN)	:	5 kg
Excepted quantities (ADN)	:	E1
Carriage permitted (ADN)	:	T* B**
Equipment required (ADN)	:	PP, A***
Number of blue cones/lights (ADN)	:	0
Additional requirements/Remarks (ADN)	:	* Only in the molten state. ** For carriage in bulk see also 7.1.4.1. *** Only in the case of transport in bulk.

Rail transport

Classification code (RID)	:	M7
Special provisions (RID)	:	274, 335, 375, 601
Limited quantities (RID)	:	5kg
Excepted quantities (RID)	:	E1
Packing instructions (RID)	:	P002, IBC08, LP02, R001
Special packing provisions (RID)	:	PP12, B3
Mixed packing provisions (RID)	:	MP10
Portable tank and bulk container instructions (RID)	:	T1, BK1, BK2, BK3
Portable tank and bulk container special provisions (RID)	:	TP33
Tank codes for RID tanks (RID)	:	SGAV, LGBV
Transport category (RID)	:	3



Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Special provisions for carriage – Packages (RID) : W13
 Special provisions for carriage – Bulk (RID) : VC1, VC2
 Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW31
 Colis express (express parcels) (RID) : CE11
 Hazard identification number (RID) : 90

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Germany

Employment restrictions

: Observe restrictions according Act on the Protection of Working Mothers (MuSchG).
 Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).

Water hazard class (WGK)

: WGK nwg, Non-hazardous to water (Classification according to AwSV; ID No. 1443).

Storage class (LGK, TRGS 510)

: LGK 13 - Non-combustible solids.

Joint storage table

LGK 1	LGK 2A	LGK 2B	LGK 3	LGK 4.1A
LGK 4.1B	LGK 4.2	LGK 4.3	LGK 5.1A	LGK 5.1B
LGK 5.1C	LGK 5.2	LGK 6.1A	LGK 6.1B	LGK 6.1C
LGK 6.1D	LGK 6.2	LGK 7	LGK 8A	LGK 8B
LGK 10	LGK 11	LGK 12	LGK 13	LGK 10-13

Joint storage not permitted for

: LGK 1, LGK 6.2, LGK 7.

Joint storage with restrictions permitted for

: LGK 4.1A, LGK 5.1C.



Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Joint storage permitted for : LGK 2A, LGK 2B, LGK 3, LGK 4.1B, LGK 4.2, LGK 4.3, LGK 5.1A, LGK 5.1B, LGK 5.2, LGK 6.1A, LGK 6.1B, LGK 6.1C, LGK 6.1D, LGK 8A, LGK 8B, LGK 10, LGK 11, LGK 12, LGK 13, LGK 10-13.

Hazardous Incident Ordinance (12. BImSchV) : Is not subject to the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

ABM category : A(1) - highly toxic for aquatic organisms, may have longterm hazardous effects in aquatic environment

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : The substance is not listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

Switzerland

Storage class (LK) : LK 11/13 - Solids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration



Tungsten Reduction Reagent, 0.5 to 2.0mm, OEA

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Abbreviations and acronyms:

OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:

Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

The classification complies with : ATP 12

Safety Data Sheet (SDS)_OEA, EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.