

SAFETY DATA SHEET

Section 1 – Chemical Product and Company Identification

Product name: Tungsten Electrodes for Welding, EWTH-2

Manufacturer: Welding Material Sales, Inc

Address: 3940 Stern Ave
St. Charles IL 60174

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Section 2 – Hazards Identification

Classification of the substance or mixture

OSHA Hazards

Toxic by inhalation, toxic by ingestion, toxic by skin absorption, may cause cancer.

Target Organs

Blood, kidneys, liver, lungs, bone marrow, reproductive system.

GHS Classification

In accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 3), H301

Acute toxicity, Inhalation (Category 3), H331

Acute toxicity, Dermal (Category 3), H311

Carcinogenicity (Category 1B), H350

Specific target organ toxicity - repeated exposure (Category 2), H373

GHS Label elements, including precautionary statements



Pictogram(s):

Signal word: Danger.

Hazard statements:

H373 May cause damage to organs through prolonged or repeated exposure. Precautionary statement(s)

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

P322 Specific measures (see supplemental first aid instructions on this label).

P330 Rinse mouth.

P361 Remove/ Take off immediately all contaminated clothing.

P363 Wash contaminated clothing before reuse.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/ container to an approved waste disposal plant. Hazards not otherwise classified (HNOC) or not covered by GHS Radioactive

Description of any hazards not otherwise classified

See section 11 for detailed health effects and symptoms.

Section 3 – Composition/Information on Ingredient

As manufactured article, which is formed to a specific shape or defined during manufacture.

This product belongs to copper-plated low-alloy steel gas shielded welding wire. It is used as alloy welding wire steel by CO₂ or argon-rich as protective gas, mainly used for gas shielded welding. Gas shielded welding is the use of an applied gas as an arc medium to protect the arc and weld zone arc welding.

Designation		Chemical Composition Impurities 0.1%		Tip Color
ISO 6848	AWS A5.12	Oxide Additive, %	Tungsten,%	
WT20	EWTh-2	ThO ₂ ,: 1.80-2.20	≥97. 30	RED

Ingredient	CAS No.
Tungsten (W)	7440-33-7
Thorium Dioxide	1314-20-1

Section 4 – First Aid Measures

INHALATION

Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.

INGESTION

In the case of ingestion of radioactive substances, the mouth should be rinsed out immediately after the accident. Care should be taken not to swallow the water used for this purpose. Vomiting should be induced either mechanically, or with syrup of ipecac. Get medical attention immediately.

SKIN CONTACT:

Remove victim to a suitable area for decontamination as quickly as possible. Remove clothing and shoes immediately. Thoroughly wash the victim with soap and water, paying particular attention to the head, finger nails and palms of the hands

EYE CONTACT:

Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention immediately.

Section 5 – Fire Fighting Measures

Suitable Extinguishing Media:

Use dry sand, dry chemical powder.

Special hazards arising from the chemical:

Hazardous metal or metal oxide fumes.

Special protective equipment for firefighters:

Firefighters must wear fire resistant protective equipment. Wear self-contained breathing apparatus.

Section 6 – Accidental Release Measures

For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on disposal. Observe the relevant local and international regulations.

Personal precautions, protective equipment and emergency procedures:

General ventilation and local fume extraction must be adequate to keep fume concentrations within safe limits. Use respiratory equipment when welding in a confined space. Wear protective clothing and eye protection appropriate to arc welding. Skin contact should be avoided to prevent possible allergic reactions.

Environmental precautions: Try to prevent the material from entering drains or water courses.

Methods and materials for containment and cleaning up: Pick up/sweep up when material is cooling.

Section 7 – Handling and Storage

Handling: Preventive handling precautions: Ensure adequate ventilation for the welder and others. Use respiratory equipment when welding in a confined space. Wear protective clothing and eye protection appropriate to welding. Remove all flammable materials and liquids before welding.

General hygiene: Wash hands before breaks and immediately after handling the product.

Storage: Store welding consumables inside a room without humidity. Do not store welding consumables directly on the ground or beside walls. Store away from chemical substances like acids which could cause chemical reactions.

Section 8 – Exposure Controls, Personal Protection

Control parameters

Components with workplace control parameters:

Ingredient	CAS No.	OSHA PEL	ACGIH TWA	ACGIH STEL
Tungsten (W)	7440-33-7	–	5 mg/m ³	10 mg/m ³
Thorium Dioxide	1314-20-1	–	1 mg/m ³	1 mg/m ³

EXPOSURE LIMITS	No exposure limit (OSHA, ACGIH, NIOSH) has been established for any component comprising greater than 1/10 of 1% of these CRMs. Subject to SARA section 313 Annual Toxic Chemical Release Reporting (Thorium oxide). Subject to California Proposition 65 cancer and/or reproductive toxicity warning and release requirements (Thorium oxide).
VENTILATION:	At a minimum, provide local exhaust or process enclosure ventilation. Depending upon the specific work place activity, a more stringent ventilation system may be necessary to comply with exposure limits set forth in 10 CFR 20.103. One method of controlling external radiation exposure is to provide adequate shielding.
EYE PROTECTION:	Employee must wear eye protection to prevent eye contact with this substance. Contact lenses should not be worn. Emergency eye wash: If there is any possibility that an employee's eyes may be exposed to this substance, the employer must provide an eye wash station within the immediate area for emergency use.
CLOTHING	Employee must wear impervious clothing to prevent repeated or prolonged skin contact with this substance.
GLOVES:	Employee must wear appropriate protective gloves to prevent contact with this substance. Used gloves that may have contact this substance should be disposed of as radioactive waste.
RESPIRATOR	The following respirators and maximum use concentrations are recommendations by the U.S. Department of Health Services, NIOSH Pocket Guide to Chemical Hazards; or by the U.S. Department of Labor, 29 CFR 1910 Subpart Z

Section 9-Physical and Chemical Properties

Appearance	Solid.	Lower explosive limit %(V/V):	Not available.
Odor	Odorless.	Vapor pressure	Not available.
Odor threshold	Not available.	Vapor density	Not available.
pH	Not available.	Relative density(water=1)	Not available.
Melting point/freezing point	Ca. 3400°C.	Solubility(ies)	Ca. 19.3.
Initial boiling point and boiling range	Ca. 5900°C.	Partition coefficient: n- octanol/water	Insoluble in water.
Flash point	Not available.	Auto-ignition temperature	Not available.
Evaporation rate	Not available.	Decomposition temperature	Not available.
Flammability	Not flammable.	Viscosity	Not available.

Section 10 – Stability and Reactivity

Stability:	Stable under normal temperature and pressure.	Hazardous Decomposition Products:	Will not decompose under normal condition.
Incompatible materials:	Strong acid, strong oxides.	Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Prevent dispersion of dust in air. Thorium oxide may burn but does not ignite readily.		

Section 11 – Toxicological Information

<p>Acute Toxicity: No data available.</p> <p>Sub-acute and Chronic Toxicity: No known significant effects or critical hazards.</p> <p>Skin corrosion/irritation: No known significant effects or critical hazards.</p> <p>Serious eye damage/eye irritation: No known significant effects or critical hazards.</p> <p>Sensitization: No known significant effects or critical hazards.</p> <p>Mutagenicity: No known significant effects or critical hazards.</p> <p>Carcinogenicity: No known significant effects or critical hazards.</p> <p>Reproductive Toxicity: No known significant effects or critical hazards.</p>	<p>Other hazard:</p> <p>Welding fumes, if inhaled, can potentially produce several different health effects caused by the metal containing particles and the gases produced during the welding process, both of which are present in the "fumes". The exact nature of any likely health effect is dependent on the consumable, material being welded and welding process, all of which affect fume quantity and composition, as well as the use of adequate ventilation, respirators, or breathing equipment as circumstances require.</p> <p>Inhalation of the fumes/gases produced during welding may lead to irritation to the nose, throat and eyes.</p> <p>Tungsten</p> <p>Any fume or dust given off by these electrodes will consist mainly of tungsten and tungsten oxides. Exposure to tungsten and its compounds as a dust or fume generally shows low toxicity with no long term fibrotic effects on the lung.</p>
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Section 12 – Ecological Information

<p>Ecotoxicity: No data available.</p> <p>Biodegradable: No data available.</p> <p>Non-biodegradable: No data available</p>	<p>Bioconcentration or biological accumulation: No data available.</p> <p>Other harmful effects: Try to prevent the material from entering drains or water courses.</p>
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Section 13 – Disposal Considerations

<p>Waste information: Firstly, should consider the recovery or recycling as possible. Disposal must be made according to local and national regulations.</p> <p>Disposal notice: Disposal area must comply with the environment and national safety standard.</p>

Section 14 – Transport Information

The U.S. Department of Transportation (D.O.T.) Code of Federal Regulations (49 CFR Parts 100-185), the International Air Transportation Association (IATA), International Civil Aviation Organization (ICAO) and International Maritime Organization (IMDG) are all factored into the classification and transport of material.

Classification of substances with multiple hazards must be determined in accordance with the criteria presented in the above mentioned regulations. Due to the various quantities/combinations of materials being shipped at one time, the information above must be determined based on the characteristics of the specific shipment.

Section 15 – Regulatory Information

This safety data sheet complies with the requirements of UN GHS Rev.8, Regulation (EC) No 1272/2008 and OSHA Hazard Communication Standards (29 CFR 1910.1200).

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

No information available.

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

California Proposition 65: WARNING:

This product may expose you to chemicals including thorium dioxide, which are known to the State of California to cause cancer For more information go to <https://www.p65warnings.ca.gov/>

Section 16 – Additional Information

This material is prepared for use as a standard or in inter-laboratory comparison programs at analytical laboratories that routinely handle radionuclides including uranium and plutonium. The New Brunswick Laboratory (NBL) assumes that recipients of this material have developed internal safety procedures that guard against accidental exposure to radioactive and toxic materials, contamination of the laboratory environment, or criticality. NBL further expects that personnel who handle radioactive materials have been thoroughly trained in the safety procedures developed by and for their Laboratory. The information and recommendations set forth herein are presented in good faith and believed to be correct as of the revision date. However, recipients of this material should use this information only as a supplement to other information gathered by them, and should make independent judgment of the suitability and accuracy of this information. This statement is not intended to provide comprehensive instruction in developing an appropriate safety program and does not include all regulatory guidelines. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

This SDS was prepared sincerely on the basis of the information we could obtain, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. Products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.

The customer should provide this Safety Data Sheet to any person involved in the materials use or further distribution. Welding Material Sales requests the users (or distributors) of this product to read this Safety Data Sheet carefully before usage. The information contained in this Safety Data Sheet relates only to the specific materials designated and may not be valid for such material used in combination with any other material or in any other process. Welding Material Sales believes that the information contained in this (SDS) Safety Data Sheet is accurate. However, Welding Material Sales does not express or imply any warranty with respect to this information. The product is supplied on the condition that the user accepts the responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. Freedom from patent rights must not be assumed.