

## SAFETY DATA SHEET

### Section 1 – Chemical Product and Company Identification

**Product name:** Tungsten Electrodes for Welding

**Tel:** 1-630-232-6421

**Manufacturer:** WELDING MATERIAL SALES, INC.

**Address:** 3940 Stern Ave St.  
Charles IL 60174

**Information incase of emergency**

**Tel:** 1-800-424-9300

**Fax:** 1-888-733-1512

**Email:** sales@weldingmaterialsales.com

### Section 2 – Hazards Identification

**Classification of the chemical**

**Signal word:** Danger

**Product definition:** Mixture

**Classification according to Regulation (EC) No 1272/2008[EU- GHS/CLP]**

**Precautionary statements**

Precaution;

**GHS Label elements, including precautionary statements**

P201:Obtain special instructions before use

P202:Do not handle until all safety precautions have  
Been read and understood

**Pictogram(s):**



P281:Use personal protective equipment as required

Response;

P308+313:IF exposed or concerned :Get medical  
advice/attention.

Storage;

P405:Store locked up

Disposal;

P501:Dispose of contents and container in accordance  
With local/regional/national/international  
regulations.

**Description of any hazards not otherwise classified**

When the product is used in the welding process the most important hazards are:

Over exposure to fumes and gases from welding can be dangerous to health.

Watch out for splatter,hot metal and slag.It may cause skin burn and cause fire.

**Ingredient with unknown acute toxicity**

No information available.

### 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 CO<sub>2</sub> 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<br>Impurities 0.1%   |             | Tip Color  |
|-------------|-----------|---|-------------|------------|
| ISO 6848    | AWS A5.12 | Oxide Additive, %   | Tungsten, % |            |
| WX          | EWG       | Proprietary   | ≥97.30      | Light Blue |
| WP          | EWP       | -----   | ≥99.95      | Green      |
| WL 15       | EWLa-1.5  | LaO <sub>2</sub> : 1.30-1.70  | ≥97.80      | Gold       |
| WC20        | EWCe-2    | CeO <sub>2</sub> : 1.80-2.20  | ≥97.30      | Gray       |
| WL10        | EWLa-1    | LaO <sub>2</sub> : 0.80-1.20  | ≥98.30      | Black      |
| WL20        | EWLa-2    | LaO <sub>2</sub> : 1.80-2.20  | ≥97.30      | Blue       |
| WZ3         | EWZr-1    | ZrO <sub>2</sub> : 0.15-0.50  | ≥99.10      | Brown .    |
| WZ8         |           | ZrO <sub>2</sub> : 0.70-0.90  | ≥98.60      | White      |
| WX          | EWG       | LaO <sub>2</sub> & CeO <sub>2</sub> &Y <sub>2</sub> O <sub>3</sub> :<br>1.80-2.20 | ≥97.30      | Pink       |

| Ingredient        | CAS No.   |
|-------------------|-----------|
| Tungsten (W )     | 7440-33-7 |
| Cerium Dioxide    | 1345-13-7 |
| Lanthanum Dioxide | 1312-81-8 |
| Zirconium Oxide   | 1314-23-4 |
| Yttrium Oxide     | 1314-36-9 |

### Section 4 – First Aid Measures

|                      |   |   |   |
|----------------------|---|---|---|
| <b>Skin contact:</b> | Burns should be treated by a doctor.  | <b>Ingestion:</b>   | Contact a doctor if more than an insignificant Amount has been swallowed.                         |
| <b>Eyes contact:</b> | IF IN EYES: Rinse cautiously with Water for several minutes. Remove Contact lenses, if present and easy To do. Continue rinsing. Burns from radiation, see doctor | <b>Most important Symptoms and effects, Both acute and delayed:</b> | Inhalation of vapours may cause irritation Of the respiratory system in very susceptible persons. |
| <b>Inhalation:</b>   | IF INHALED: If breathing is difficult, Remove to fresh air and keep at rest In a position comfortable for breathing. Call a physician if Symptoms occur.          |   |   |

## 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:** Pickup/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                | ACGIH               | ACGIH                |
|-------------------|-----------|---------------------|---------------------|----------------------|
|                   |           | PEL                 | TWA                 | STEL                 |
| Tungsten (W )     | 7440-33-7 | –                   | 5 mg/m <sup>3</sup> | 10 mg/m <sup>3</sup> |
| Cerium Dioxide    | 1345-13-7 | –                   | –                   | –                    |
| Lanthanum Dioxide | 1312-81-8 | –                   | –                   | –                    |
| Zirconium Oxide   | 1314-23-4 | 5 mg/m <sup>3</sup> | 5 mg/m <sup>3</sup> | 10 mg/m <sup>3</sup> |
| Yttrium Oxide     | 1314-36-9 | 1 mg/m <sup>3</sup> | 1 mg/m <sup>3</sup> | –                    |

- Monitoring Method:** Data not available.
- Engineering Control:** General ventilation and local fume extraction must be adequate to keep fume Concentrations within safe limits

**Personal protective equipment:**

|                                |   |
|--------------------------------|---|
| <b>Respiratory Protection:</b> | Use respiratory equipment when welding in a confined space. Wear protective clothing And eye protection appropriate to welding. |
| <b>Eyes Protection:</b>        | Wear eye protection appropriate for welding.  |
| <b>Body Protection:</b>        | Wear body protection which helps to prevent injury from radiation, sparks and electric shock.                                   |
| <b>Hands Protection:</b>       | Wear eye protection appropriate for welding.  |
| <b>Other Protections:</b>      | Wash hands before breaks and immediately after handling the product.  |

**Section 9 – Physical and Chemical Properties**

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

**Section 10 – Stability and Reactivity**

|                                |   |  |  |
|--------------------------------|---|--|--|
| <b>Stability:</b>              | Stable under normal temperature And pressure. | <b>Hazardous Decomposition Products:</b> | Will not decompose under Normal condition. |
| <b>Incompatible materials:</b> | Strong acid, strong oxides.                   | <b>Hazardous Polymerization:</b>         | Will not occur.                            |
| <b>Conditions to Avoid:</b>    | No data available.                            |  |  |

**Section 11 – Toxicological Information**

|   |   |  |  |
|---|---|--|--|
| <b>Acute Toxicity:</b>                    | No data available.                                | <b>Other hazard:</b>   |  |
| <b>Sub-acute and Chronic Toxicity:</b>    | No known significant effects or Critical hazards. | <b>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.</b> |  |
| <b>Skin corrosion/irritation:</b>         | No known significant effects or Critical hazards. | <b>Inhalation of the fumes/gases produced during welding may lead To irritation to the nose, throat and eyes.</b>  |  |
| <b>Serious eye damage/eye irritation:</b> | No known significant effects or Critical hazards. | <b>Tungsten</b>  |  |
| <b>Sensitization:</b>                     | No known significant effects or Critical hazards. | <b>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.</b>   |  |
| <b>Mutagenicity:</b>                      | No known significant effects or Critical hazards. |  |  |
| <b>Reproductive Toxicity:</b>             | No known significant effects or Critical hazards. |  |  |

## Section 12 – Ecological Information

|                           |                    |   |  |
|---------------------------|--------------------|---|--|
| <b>Ecotoxicity:</b>       | No data available. | <b>Bioconcentration or biological accumulation:</b> | No data available.   |
| <b>Biodegradable:</b>     | No data available. | <b>Other harmful effects:</b>                       | Try to prevent the material from entering drains Or water courses. |
| <b>Non-biodegradable:</b> | No data available. |   |  |

## Section 13 – Disposal Considerations

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

## Section 14 – Transport Information

|   |                                   |  |                                   |
|---|-----------------------------------|--|-----------------------------------|
| <b>UN Number :</b><br><b>ADR, IMDG,IATA</b>                 | Not regulated as dangerous goods. | <b>Packing group:</b><br><b>ADR, IMDG,IATA</b> | Not regulated as dangerous goods. |
| <b>UN proper shipping name: ADR, IMDG, IATA</b>             | No regulated as dangerous goods.  | <b>Environmental hazards:</b>                  | No.                               |
| <b>Transport hazard class(es):</b><br><b>ADR, IMDG,IATA</b> | Not regulated as dangerous goods. | <b>Special precautions for user:</b>           | No information available.         |

## 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 (29CFR1910.1200).

### 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.

## Section 16 – Additional Information

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.