

Filler Metals and Welding Rods

Product Trade Name/Product Classification(s): **1.5% LANTHANATED TUNGSTEN ELECTRODES**

"ESSENTIALLY SIMILAR" to U.S. Department of Labor Form OSHA 20 (to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200)

<p align="center">SECTION 1: Identification</p> <p>SUPPLIER: Inweld Corporation Phone: 1-800-346-5368 Revised: January 2006 Address: 3962 Portland St., Coplay, PA 18037</p> <p>Product Trade Name/Product Classification(s): 1.5% LANTHANATED TUNGSTEN ELECTRODES</p>	<p align="center">SECTION 2: Hazardous Ingredients/Identity Info.</p> <p>IMPORTANT: THIS SECTION COVERS MATERIALS FROM WHICH THIS PRODUCT IS MANUFACTURED. THE FUMES AND GASES PRODUCED DURING WELDING WITH THE NORMAL USE OF THIS PRODUCT ARE COVERED UNDER SECTION V. THORIUM DIOXIDE IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPREMACY AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) AND CFR PART 372.</p> <p>*The term "HAZARDOUS MATERIALS" should be interpreted as a term required and defined in OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200, however the use of this term does not necessarily imply the existence of any hazard.</p> <p>BASE METAL: TUNGSTEN >97.3% OTHERS: LANTHANUM 1.5-2.2% Occupational Safety and Health Administration 29 CFR 1910.1000 Permissible Exposure Limit (PEL). American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV(R)).</p>												
<p align="center">SECTION 3: Physical Properties</p> <p>Boiling Point: <u>Approx. 5900° C</u> Specific Gravity (H₂O=1): <u>Approx. 19</u> Melting Point: <u>Approx. 3400° C</u> Vapor Pressure: <u>N/A @ 25° C</u> Evaporation Rate: <u>N/A</u> Vapor Density: <u>N/A</u> Appearance and Odor: <u>Gray, no odor</u> Solubility in Water: <u>Insoluble</u> Radioactive Isotope: <u>Th-232</u></p>	<p align="center">SECTION 4: Fire and Explosion Hazard Data</p> <p><u>Non-Flammable:</u> Welding arc and sparks can ignite combustibles. See Z49.1 referenced in Section VI.</p>												
<p align="center">SECTION 5: Reactivity Data</p> <p><u>Hazardous Decomposition Products</u></p> <p>Welding fumes and gases cannot be classified simply. The composition and quantity of these fumes and gases are dependent upon the metal being welded, the procedures followed and the electrodes used.</p> <p>Workers should be aware that the composition and quantity of fumes and gases to which they may be exposed, are influenced by: coatings which may be present on the metal being welded (such as paint, plating, or galvanizing), the number of welders in operation and the volume of the area, the quality and amount of ventilation, the position of the welder's head with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning and degreasing procedure). When the electrode is consumed, the fumes and gas decomposition products generated are different in percent and form from the ingredients listed in Section II. The composition of these fumes and gases are the concerning matter and not composition of the electrode itself.</p> <p>Decomposition products include those originating from the volatilization, reaction, or oxidation of ingredients shown in Section II, plus those from base metal, coating and the other factors noted above.</p> <table border="1" data-bbox="250 1182 748 1266"> <thead> <tr> <th rowspan="2">INGREDIENT</th> <th rowspan="2">CAS No.</th> <th rowspan="2">OSHA PEL</th> <th colspan="2">ACGIH</th> </tr> <tr> <th>TWA</th> <th>STEL</th> </tr> </thead> <tbody> <tr> <td>Lanthanum Dioxide</td> <td>1312-81-8</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table> <p>Gaseous reaction products may include carbon monoxide and carbon dioxide. Ozone and nitrogen oxides may be formed by the radiation from the arc. One method of determining the composition and quantity of the fumes and gases to which the workers are exposed is to take an air sample from inside the welder's helmet while worn, or within the worker's breathing zone. See ANSI/AWS F1.1 publication available from the American Welding Society 550 N.W. LeJeune Road, Miami, Florida 33126.</p>	INGREDIENT	CAS No.	OSHA PEL	ACGIH		TWA	STEL	Lanthanum Dioxide	1312-81-8	-	-	-	<p align="center">SECTION 6: Health Hazard Data</p> <p>Threshold Limit Value: The ACGIH recommended general limit for welding fume NOC (Not Otherwise Classified) is 5mg/m³. ACGIH - 1985 preface states: "the TLC - TWA should be used as guides in the control of health hazards and should not be used as fine lines between safe and dangerous concentrations". See Section 5 for specific fume constituents, which may modify this TLV.</p> <p>Common Entry is by Inhalation.</p> <p>Effects of Overexposure: Inhalation of welding fumes and gases can be dangerous to your health. Short-term (acute) overexposure to welding fumes may result in discomfort such as dizziness, nausea, dryness or irritation of nose, throat, or eyes. Although the inhalation of Tungsten has the potential for causing transient or permanent lung damage, it is generally considered to exhibit a low degree of toxicity. Thorium is a naturally occurring radioactive element. Its primary hazard lies in inhalation of dust/fumes. Normal handling of these electrodes is not expected to result in any significant radiation exposure. Considerable experience in refining and use of thorium has not revealed any adverse effects from industrial exposure. Long-term (chronic) over-exposure to welding fumes can lead to siderosis (iron deposits in lung) and is believed to affect pulmonary function.</p> <p>Arc Rays can injure eyes and burn skin. Electric shock can kill. See Section VII.</p> <p>Emergency & First Aid Procedures: Call for medical assistance. Use first aid procedures recommended by the American Red Cross. If breathing is difficult - give oxygen. If not breathing - use CPR (cardiopulmonary resuscitation).</p> <p><u>Carcinogenicity</u> Thorium dioxide has been identified as a carcinogen by NTP, IARC and others. Evidence for its ability to cause cancer has come solely from internal medical use.</p>
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Lanthanum Dioxide	1312-81-8	-	-	-									
<p align="center">SECTION 7: Control Measures & Precautions for Safe Handling & Use</p> <p>Read and understand the manufacturer's instructions and precautionary label on this product. See American Standard Z49.1 Safety in Welding and Cutting, published by the American Welding Society, 550 N.W. LeJeune Road, Miami, Florida 33126 and OSHA Publication 2206 (29 CFR 1910), U.S. Government Printing Office, Washington D.C. 20402; for more details on the following topics.</p> <p><u>Ventilation:</u> Use plenty of ventilation and/or local exhaust at the arc, to keep the fumes and gases below the threshold limit value within the worker's breathing zone and the general work area. Welders should be advised to keep their head out of the fumes.</p> <p><u>Respiratory Protection:</u> Use respirable fume respirator or air supplied respirator when welding in a confined space or general work area where local exhaust and/or ventilation does not keep exposure below the threshold limit value.</p> <p><u>Eye Protection:</u> Wear a helmet or face shield with a filter lens shade number 4 or darker. Shield other workers by providing screens and flash goggles.</p> <p><u>Protective Clothing:</u> Wear approved head, hand and body protection, which helps to prevent injury from radiation, sparks and electrical shock. See ANSI Z-49.1. This would include wearing welder's gloves and a protective face shield and may include arm protectors, apron, hats, shoulder protection, as well as dark substantial clothing. Welders should be trained not to allow electrically live parts to contract the skin or wet clothing and gloves. The welders should insulate themselves from the work and ground.</p> <p><u>Waste Disposal Method:</u> Discard any product, residue, disposal container, or liner in an environmentally acceptable manner approved by Federal, State and Local regulations.</p>	<p align="center">SECTION 10: DISCLAIMER</p> <p>ALTHOUGH REASONABLE CARE HAS BEEN TAKEN IN THE PREPARATION OF THE INFORMATION HEREIN, INWELD EXTENDS NO WARRANTIES, EXPRESS OR IMPLIED, MAKES NO REPRESENTATIONS AND ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OR SUITABILITY OF INFORMATION FOR APPLICATION TO PURCHASER'S INTENDED PURPOSE OR FOR CONSEQUENCES OF ITS USE. JUDGMENTS AS TO THE SUITABILITY OF INFORMATION FOR PURCHASER'S PURPOSES ARE PURCHASER'S RESPONSIBILITY.</p>												