

**CERIATED TUNGSTEN**  
**MATERIAL SAFETY DATA SHEET**

02/05/00

MSDS PROVIDED BY:

STOODY INDUSTRIAL AND WELDING SUPPLY, INC.

3316 National Ave., San Diego, CA 92113

Phone: (619) 234-6750

MILITARY EMERGENCY RESPONSE NUMBER 1 (800) 851-8061

Material Safety Data Sheet  
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SECTION 1 – PRODUCT IDENTIFICATION AND USE

PRODUCT IDENTIFIER: CERIATED TUNGSTEN

CATALOG NUMBERS: 80148CR, 80188, 80189, TT-C040G-7, TT-C116G-7, TT-C18G-7, TT-C332G-7, TTC532G-7

PRODUCT USE: TIG Welding Electrode

MANUFACTURERS NAME: OSRAM SYLVANIA, Inc.

EMERGENCY PHONE #: (717) 265-2121

STREET ADDRESS: Chemical and Metallurgical Division

CITY: Tonawanda STATE: Pennsylvania ZIP CODE: 18848

DISTRIBUTORS NAME: TWECO Products, Inc.

EMERGENCY PHONE #: (316) 946-8308

STREET ADDRESS: 4200 W. Harry St.

P.O. Box 12250

CITY: Wichita STATE: Kansas

ZIP CODE: 67277

PREPARED BY: Dennis Wilson

PHONE NUMBER: (316) 946-8308

DATE PREPARED: November 3, 1993

DATE REVISED: October 1997

SECTION 2 – HAZARDOUS INGREDIENTS

| HAZARDOUS INGREDIENTS | %/RANGE | CAS NUMBER | OSHA PEL | ACGIH TLV |
|-----------------------|---------|------------|----------|-----------|
| Tungsten              | 98      | 7440-33-7  | N/A      | 5mg/m3    |

SECTION 313. SUPPLIER INFORMATION

THIS PRODUCT DOES [ ] DOES NOT [X] CONTAIN TOXIC CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND OF 40 CFR 372.

| CAS NUMBER | CHEMICAL NAME | % |
|------------|---------------|---|
|------------|---------------|---|

SECTION 3 – PHYSICAL DATA

PHYSICAL STATE: Solid ODOR AND APPEARANCE: Gray Metal Cylinder, No Odor

VAPOR PRESSURE (mm Hg): N. App. VAPOR DENSITY (air=1): N. App.

EVAPORATION RATE: N. App. BOILING POINT (F/C): 5660 C. FREEZING POINT (F/C): N. App

pH: N. App. SPECIFIC GRAVITY: 19 SOLUBILITY: Not Soluble

SECTION 4 – FIRE AND EXPLOSION DATA

FLAMMABILITY: Yes [ ] No [ X ] IF YES, MEANS OF EXTINCTION: Not Flammable

FLASHPOINT (F/C) and METHOD: N. App. FLAMMABLE LIMIT: N. App.

LEL: N. App. UEL: N. App. UNUSUAL FIRE AND EXPLOSION HAZARDS: Welding arc and sparks can ignite combustible materials. Refer to ANSI Z49.1, "Safety In Welding and Cutting" published by the American Welding Society.

N. App.: NON APPLICABLE; N. Av.: NOT AVAILABLE; N. Est. : NOT ESTABLISHED

N.F.P.A. RATING SYSTEM: 0 – INSIGNIFICANT; 1 – SLIGHT; 2 – MODERATE; 3 – HIGH; 4 – EXTREME

Health = 1 Flammability = 0

Reactivity = 0

Special = \_\_

WHMIS CLASSIFICATION: CLASS "D"

DIVISION 2

SUB-DIVISION "G"

SECTION 5 – REACTIVITY DATA

CHEMICAL STABILITY: Yes [ X ] No [ ] IF NO, CONDITIONS TO AVOID: N. App.

INCOMPATIBILITY WITH OTHER SUBSTANCES: Yes [ ] No [ X ] IF YES, WHICH ONES? None Known

HAZARDOUS POLYMERIZATION: Will Occur [ ] Will Not Occur [ X ]

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CT

Page 2

CONDITIONS TO AVOID: N. App. HAZARDOUS DECOMPOSITION PRODUCTS: Welding fumes (oxides of metal being welded and gases, such as carbon monoxide, ozone and oxides of nitrogen) depending on the process, procedure and metal welded. Some loss of electrode will occur.

**SECTION 6 – HEALTH HAZARD DATA**

ROUTE OF ENTRY: SKIN CONTACT [ ] SKIN ABSORPTION [ ] EYE CONTACT [ ]  
INHALATION [X] INGESTION [ ] Inhalation of the fumes generated during welding EFFECTS OF ACUTE/CHRONIC EXPOSURE TO PRODUCT: Most studies have found tungsten to be toxicologically inert. TOXICITY: N. App.  
REPRODUCTION: (As Tungsten) Oral Rat TDLo – 1210 ug/Kg (35w pre) CARCINOGENICITY: Not Currently Listed  
SIGNS AND SYMPTOMS OF EXPOSURE: Breathing difficulty, headache, nausea, dryness or irritation of nose, throat, eyes. Burning sensation of skin or eyes. Unconsciousness. MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Respiratory problems, erythmas.  
EMERGENCY AND FIRST AID PROCEDURES: Remove to fresh air. If breathing impaired, assisted respiration may be required. Treat U.V. exposure similar to severe sunburn, seek medical attention!

**SECTION 7 – PRECAUTIONS FOR SAFE HANDLING AND USE**

LEAK AND SPILL PROCEDURE: N. App. WASTE DISPOSAL METHOD: Dispose of in accordance with local, state and federal regulations. PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: N. App OTHER PRECAUTIONS: None

**SECTION 8 – CONTROL MEASURES**

RESPIRATORY PROTECTION: Use a NIOSH approved respirable fume respirator when welding in confined spaces and whenever fume concentrations exceed applicable limits for tungsten or other welding fumes. All requirements set forth in 29 CFR 1910.134 should be met.  
GLOVES: Welders Gloves RESPIRATOR: See Above EYE: Face shield or welders helmet with proper filter lens.  
FOOTWEAR: Suitable for metal working. CLOTHING: Dark, substantial – aprons, etc. OTHER: As recommended by ANSI Z49.1 VENTILATION: General and/or local exhaust at the welding arc recommended. If such equipment is not available, use respirators as specified above.  
OTHER: Air sampling if necessary to determine corrective measures  
WORK/HYGIENIC PRACTICES: Operator trained to avoid electrical shock and UV ray exposure.

**REFERENCES:**

“Chemical Guide To OSHA Hazard Communication Standard” First Edition  
“Handbook Of Toxic And Hazardous Chemicals and Carcinogens” Second Edition  
“Registry Of Toxic Effects Of Chemical Substances”

THIS DATA IS OFFERED IN GOOD FAITH AS TYPICAL VALUES. THIS IS NEITHER AN EXPRESSED NOR IMPLIED PRODUCT SPECIFICATION. RECOMMENDED HANDLING PROCEDURES AND HYGIENE ARE BELIEVED TO BE ACCURATE, HOWEVER, THESE RECOMMENDATIONS SHOULD BE REVIEWED IN THE SPECIFIC CONTEXT OF INTENDED USE AND DETERMINED APPROPRIATE BY THE USER.