

TELEDYNE WAH CHANG HUNTSVILLE -- TUNGSTEN WELDING ELECTRODES -- 3439-00-872-1411  
===== Product Identification =====

Product ID:TUNGSTEN WELDING ELECTRODES  
MSDS Date:03/01/1991  
FSC:3439  
NIIN:00-872-1411  
MSDS Number: BKJQX  
=== Responsible Party ===  
Company Name:TELEDYNE WAH CHANG HUNTSVILLE  
Address:7300 HIGHWAY 20 WEST  
City:HUNTSVILLE  
State:AL  
ZIP:35806-2052  
Country:US  
Info Phone Num:205-837-1311  
Em  
ergency Phone Num:205-837-0285  
CAGE:3G120  
=== Contractor Identification ===  
Company Name:INWELD MFG CORP  
Address:3962 PORTLAND ST  
Box:40  
City:COPLAY  
State:PA  
ZIP:18037-0040  
Country:US  
Phone:610-261-1900  
CAGE:66376  
Company Name:TELEDYNE WAH CHANG  
Address:7300 HIGHWAY 20 WEST  
Box:City:HUNTSVILLE  
State:AL  
ZIP:35806-2052  
Country:US  
Phone:205-837-0285  
CAGE:3G120

===== Composition/Information on Ingredients =====

Ingred Name:TUNGSTEN  
CAS:7440-33-7  
RTECS #:YO7175000  
Other REC Limits

:NONE SPECIFIED  
OSHA PEL:5 MG/M3/ 10 STEL  
ACGIH TLV:5 MG/M3/10 STEL;9192

Ingred Name:ZIRCONIUM OXIDE  
CAS:1314-23-4  
RTECS #:ZH8800000  
Other REC Limits:NONE SPECIFIED

Ingred Name:THORIUM OXIDE  
CAS:1314-20-1  
Other REC Limits:NONE SPECIFIED

===== Hazards Identification =====

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO  
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES  
Health Hazards Acute and Chronic:INHALATION OF TUNGSTEN  
DUSTS,FUMES/MIST

S MAY CAUSE TRANSIENT/PERMANENT LUNG DAMAGE &  
IRRITATES SKIN.THORIUM IS TOXIC RADIOLOGICALLY,BUT HAS LOW CHEMICAL  
TOXICITY.THE LIGHT FROM THE ARC CAN CAUSE EYE/S KIN DAMAGE & CAN  
DECOMPOSE CHLORINATED HYDROCARBON TO TOXIC GASES SUCH AS  
PHOSGENE.CHRONIC-NOT GIVEN

Explanation of Carcinogenicity:THORIUM OXIDE

Effects of Overexposure:ELECTRIC ARC WELDING MAY CREATE FUMES AND GASES  
THAT CAN BE DANGEROUS TO YOUR HEALTH.ARC RAYS CAN INJURE EYES AND  
BURN SKIN. ELECTRIC SHOCK CAN  
KILL.

Medical Cond Aggravated by Exposure:CHRONIC RESPIRATORY DISEASES AND  
ASTHMA MAY BE AGGRAVATED BY EXPOSURE TO DUST, FUMES, OR MISTS.

===== First Aid Measures =====

First Aid:CALL FOR MEDICAL AID.INHALATION:REMOVE TO FRESH AIR.GIVE  
CPR/OXYGEN IF NEEDED.EYE:FLUSH WITH WATER FOR 15 MINUTES.SKIN:WASH  
WITH SOAP & WATER.CLEAN WOUND CONTAMINATED WITH DUST/FUME/MIST  
IMMEDIATELY.I NGESTION:SEEK MEDICAL ATTENTION. IN CASE OF  
ELECTRICAL SHOCK  
,TURN OFF POWER & FOLLOW RECOMMENDED TREATMENT.

===== Fire Fighting Measures =====

Flash Point:NON FLAMMABLE  
Extinguishing Media:MEDIA APPROPRIATE FOR SURROUNDING FIRE. FOR  
TUNGSTEN DUST FIRES USE CLASS D EXTINGUISHING MEDIA, DRY POWDERS.  
Fire Fighting Procedures:FIRE FIGHTERS SHOULD USE NIOSH APPROVED SCBA &  
FULL PROTECTIVE EQUIPMENT WHEN FIGHTING CHEMICAL FIRE. USE WATER  
SPRAY TO COOL NEARBY CONTAINERS EXPOSED TO FIRE.  
Unusual Fire/Explosion Haza

rd:WELDING ARC AND SPARKS CAN IGNITE  
COMBUSTIBLES.TUNGSTEN DUST (FROM GRINDING) MAY PRESENT A MODERATE  
FIRE HAZARD IF ALLOWED TO ACCUMULATE.TUNGSTEN TRIOXIDE.

===== Accidental Release Measures =====

Neutralizing Agent:NOT APPLICABLE.

===== Handling and Storage =====

Handling and Storage Precautions:STORE IN A DRY PLACE.  
Other Precautions:READ AND UNDERSTAND THE MANUFACTURER'S INSTRUCTIONS  
AND THE PRECAUTIONARY LABEL O  
N THE PRODUCT.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:NONE REQUIRED FOR ELECTRODES AS  
RECEIVED.REQUIRED DURING GRINDING(DRESSING ELECTRODE)OR WELDING,IF  
THE LIMITS ARE EXCEEDED.FOR THORIUM ELECTRODES USE A DUST MASK(FOR  
RADIO ACTIVE PARTICLES).USE NIOSH APPROVED RESPIRATOR(29 CFR  
1910.134).

Ventilation:LOCAL EXHAUST AT THE ARC.

Protective Gloves:WELDER'S GLOVES

Eye Protection:HELMET OR FACE SHIELD WITH FILTER LENS

Other Prote

ctive Equipment:WEAR HAND,HEAD & BODY PROTECTION WHICH HELP  
TO PREVENT INJURY FROM RADIATION,SPARKS & ELECTRICAL SHOCK(FLAME  
RETARDANT).

Work Hygienic Practices:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND  
RECOMMENDED PROCEDURES. DO NOT WEAR CONTAMINATED CLOTHING OR  
FOOTWEAR.

Supplemental Safety and Health

INSULATE FROM WORK AND GROUND.TRAIN THE WELDER NOT TO PERMIT  
ELECTRICALLY LIVE PARTS TO CONTACT SKIN OR CLOTHING OR GLOVES IF  
THEY ARE WET.

===== Physical  
/Chemical Properties =====

HCC:N1

Boiling Pt:B.P. Text:10652F

Melt/Freeze Pt:M.P/F.P Text:6152F,3400C

Spec Gravity:19

Solubility in Water:INSOLUBLE

Appearance and Odor:TIN-WHITE METAL NO ODOR

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

OXIDIZERS ESPECIALLY AT ELEVATED TEMPERATURES,STRONG  
ACIDS,BF3,F,IF5,AND MIXING LEAD OXIDE WITH TUNGSTEN DUST.

Stability Condition to Avoid:THORIUM DECAYS BY RADIOACTIVITY.

Haz

ardous Decomposition Products:NONE

===== Disposal Considerations =====

Waste Disposal Methods:DISPOSE OF THE MATERIAL IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS. TUNGSTEN SCRAP AND DUST HAVE VALUE AND CAN BE RECLAIMED.

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