

TELEDYNE WAH CHANG -- TUNGSTEN WELDING ELECTRODES -- 3439-00-132-6710

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Product Identification  
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Product ID:TUNGSTEN WELDING ELECTRODES

MSDS Date:11/01/1985

FSC:3439

NIIN:00-132-6710

MSDS Number: BJPJR

=== Responsible Party ===

Company Name:TELEDYNE WAH CHANG

Address:7300 HIGHWAY 20 WEST

City:HUNTSVILLE

State:AL

ZIP:35806-2052

Country:US

Info Phone Num:205-837-1311

Emergency Phone Num:205

-837-0285

CAGE:3G120

=== Contractor Identification ===

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

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Composition/Information on Ingredients  
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Ingred Name:TUNGSTEN

CAS:7440-33-7

RTECS #:YO7175000

Fraction by Wt: 98-100%

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

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raction by Wt: 0-0.25%  
Other REC Limits:NONE SPECIFIED

Ingred Name:THORIUM DIOXIDE (SARA III)  
CAS:1314-20-1  
RTECS #:XO6950000  
Fraction by Wt: 1-2%  
Other REC Limits:NONE SPECIFIED

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

LD50 LC50 Mixture:UNCLASSIFIED WELDING FUMES=5MG/M3 PEL  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO  
Reports of Carcinogenicity:NTP:YES IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:SHORT TERM EXPOSURE TO WELDING FUMES,  
GASES  
OR DUST MAY RESULT IN DISCOMFORT SUCH AS DIZZINESS, NAUSEA,  
FEVER, DRYNESS AND/OR IRRITATION OF NOSE, THROAT AND EYES. SKIN  
SENSITIVITY MAY ALSO BE NOTED. A CUTE EXPOSURE FROM SOME TOXIC  
GASES MAYCAUSE PULMONARY EDEMA, ASPHYXIATION AND EXCESSIVE EXPOSURE  
CAN BE FATAL.

Explanation of Carcinogenicity:THORIUM-232 DIOXIDE IS RADIOACTIVE  
(PRIMARY ALPHA) IS HAS SHOWN TO BE CARCINOGENIC IN NTP STUDIES.

Effects of Overexposure:EXPOSURE TO WELDING FUMES MAY RESULT IN  
DISCOMFORT SU

CH AS DIZZINESS, NAUSEA, FEVER, DRYNESS AND/OR  
IRRITATION OF NOSE, THROAT AND EYES. SKIN SENSITIVITY MAY ALSO BE  
NOTED. WATERY EYES, HEADACHE, BREA THING DIFFICULTY, FREQUENT  
COUGHING AND/OR CHEST PAINS MAY OCCUR FROM ACUTE EXPOSURE. TOXIC  
GASES CAN BE FATAL.

Medical Cond Aggravated by Exposure:SOME WORKERS MAY BE AFFECTED BY A  
PRE-EXISTING CONDITION OR OTHER OCCUPATIONAL ILLNESS BECAUSE OF THE  
WIDE VARIATION IN INDIVIDUAL SUSCEPTIBILITIES. CHRONIC RESPIRATORY  
DISEASE

S(ASTHMA) ARE AGGRAVATED

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

First Aid:IN CASE OF ELECTRICAL SHOCK, TURN OFF POWER PRIOR TO REMOVAL  
FROM EXPOSURE AREA AND ADMINISTRATION OF FIRST AID. REMOVE FROM  
EXPOSURE AREA AND CALL FOR MEDICAL AID. ADMINISTER OXYGEN IF  
BREATHING IS D IFFICULT. IF NOT BREATHING, BEGIN ARTIFICIAL  
RESPIRATION. IF NO DETECTABLE PULSE, BEGIN EXTERNAL HEART MASSAGE.  
EMPLOY FIRST AID TECHNIQUES RECOMMENDED BY THE AMERICAN RED C

ROSS.  
SEEK MEDICAL HELP.

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

Extinguishing Media:USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL.

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 Hazard:FIRE OR EXCESSIVE HEAT MAY CAUSE PRODUCTION OF HAZARDOUS DECOMPOSITION PRODUCTS. WHEN HEATED IN AIR, TUNGSTEN TRIOXIDE BEGINS TO SUBLIME ABOVE 750C

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

Spill Release Procedures:CLEAN UP ANY GRINDING DUST OR WASTE RESIDUES AND PLACE IN SUITABLE DOT APPROVED CONTAINERS AND DISPOSE OF IN FULL COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. AVOID INHALATION AND SKIN EXPOSURE.

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

Handling and Storage Precautions:WEAR GLOVES AND FLAME RETARDANT

CLOTHING WHEN CUTTING, GRINDING OR WELDING. DO NOT EXPOSE SKIN TO RADIATION WHEN HOT CUTTING OR WELDING.

Other Precautions:PROVIDE PROTECTIVE SCREENS TO SHIELD OTHERS. WHEN ELECTRODES AND FLUXES ARE CONSUMED, THE FUME AND GAS DECOMPOSITION PRODUCTS GENERATED ARE DIFFERENT IN FORM FROM THE INGREDIENTS LISTED. NEW COMPOUNDS NOT IN THE ELECTRODES MAY FORM.

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

Respiratory Protection:USE WELD FUME RESPIRATOR OR AIR SUPPLIED

RESPIRATOR WHEN CUTTING, GRINDING OR WELDING IN A CONFINED SPACE OR WHERE LOCAL EXHAUST OR GENERAL VENTILATION DOES NOT KEEP EXPOSURE BELOW RECOMMENDED LIMITS. USE ONLY NIOSH APPROVED RESPIRATORS.

Ventilation:USE ENOUGH VENTILATION WHEN CUTTING, GRINDING OR WELDING TO KEEP THE DUST, FUMES & GASES FROM THE WORKERS BREATHING ZONE

Protective Gloves:WELDERS LEATHER GLOVES

Eye Protection:OSHA APPROVED GOGGLES/FACE SHIELD W/LENS

Other Protective Equipment:FLAME RETARD

ANT CLOTHING WHEN CUTTING,  
GRINDING OR WELDING. DO NOT EXPOSE SKIN TO RADIATION WHEN HOT  
CUTTING OR WELDING.

Work Hygienic Practices:WASH THOROUGHLY BEFORE EATING OR SMOKING.  
LAUNDER CONTAMINATED CLOTHING BEFORE REUSE.

Supplemental Safety and Health

WELDING AND HOT CUTTING FUMES & GASES CANNOT BE CLASSIFIED SIMPLY.  
THEIR COMPOSITION AND QUANTITY ARE DEPENDENT ON THE METAL BEING  
WELDED, THE PROCEDURES, PROCESSES AND THE TYPE OF WIRE OR  
ELECTRODES USED. OTHER INFLUENCING F

ACTORS ARE THE PRESENCE OF  
CONTAMINANTS. CHLORINATED SOLVENTS MAY DECOMPOSE TO TOXIC GASES.

===== 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

STRONG OXIDIZING AGENTS AT ELEVATED TEMPERATURES, STRON  
G ACIDS, BROMINE

TRIFLUORIDE, LEAD OXIDE, FLUORINE, IF5.

Stability Condition to Avoid:HIGH TEMPERATURES, SPARKS, AND OPEN FLAMES

Hazardous Decomposition Products:WELDING AND CUTTING OPERATION MAY  
INCLUDE OXIDES OF THE METALS, CHROMATES, FLUORIDES, COMPLEX  
METALLICS, AND OZONE.

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

Waste Disposal Methods:DISPOSE I/A/W FEDERAL, STATE & LOCAL  
REGULATIONS. NOTE THAT TUNGSTEN SCRAP AND DUST HAVE RECLAIM VALUE.

Disclai

mer (provided with this information by the compiling agencies):

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