

ESAB WELDING & CUTTING PRODUCTS -- ESAB TUNGSTEN ELECTRODES -- 3439-00-045-3607
===== Product Identification =====

Product ID:ESAB TUNGSTEN ELECTRODES
MSDS Date:10/01/1999
FSC:3439
NIIN:00-045-3607
Status Code:A
MSDS Number: CLQHJ
=== Responsible Party ===
Company Name:ESAB WELDING & CUTTING PRODUCTS
Box:100545
City:FLORENCE
State:SC
ZIP:29501-0545
Country:US
Info Phone Num:(843) 669-4411
Emergen
cy Phone Num:803-664-4474
Preparer's Name:MANAGER, PRODUCT SAFETY
CAGE:1C9X2
=== Contractor Identification ===
Company Name:ESAB WELDING & CUTTING PRODUCTS
Box:100545
City:FLORENCE
State:SC
ZIP:29501-0545
Country:US
Phone:(843) 669-4411
CAGE:1C9X2
Company Name:J.G.B. ENTERPRISES
Address:115 METROPOLITAN DR
Box:209
City:LIVERPOOL
State:NY
ZIP:13088
Country:US
Phone:315-451-2770
Contract Num:SP0400-00-AB-989-1684
CAGE:61125

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

Ing

red Name:TUNGSTEN
CAS:7440-33-7
RTECS #:YO7175000
Minumum % Wt:98.
Maxumum % Wt:100.
Other REC Limits:NONE RECOMMENDED
OSHA PEL:NOE ESTABLISHED
ACGIH TLV:1 MG/M3/3 STEL; 9596

Ingred Name:CERIUM DIOXIDE
CAS:1345-13-7
RTECS #:FK6400000
Minumum % Wt:0.
Maxumum % Wt:2.
Other REC Limits:NONE RECOMMENDED

Ingred Name:LANTHANUM OXIDE
CAS:1312-81-8
Minumum % Wt:0.
Maxumum % Wt:2.
Other REC Limits:NONE RECOMMENDED

Ingred Name:THORIUM DIOXIDE (SARA 313)
CAS:1314-20-1
RTECS #:XO6950000
Minumum % Wt:0.
Ma
xumum % Wt:2.
Other REC Limits:NONE RECOMMENDED

Ingred Name:ZIRCONIUM OXIDE
CAS:1314-23-4
RTECS #:ZH8800000
Minumum % Wt:0.
Maxumum % Wt:1.
Other REC Limits:NONE RECOMMENDED
OSHA PEL:5 MG/M3 TWA
OSHA STEL:5 MG/M3 REVOKED

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

LD50 LC50 Mixture:NOT GIVEN FOR PRODUCT AS A WHOLE
Reports of Carcinogenicity:NTP:YES IARC:YES
Health Hazards Acute and Chronic:ELECTRODES ARE NOT HAZARDOUS AS
SHIPPED/STORED. HAZARD OCCURS WHEN USED

IN ELECTRIC ARC WELDING OR
OXY-FUEL AS PROCESSES. FUMES & GASES MAY BE DANGEROUS VIA
INHALATION. HEAT & ARC RAYS CAN INJURE EYES AND BURN SKIN.
ELECTRIC SHOCK CAN KILL.

Explanation of Carcinogenicity: THORIUM DIOXIDE HAS BEEN IDENTIFIED AS A
CARCINOGEN BY NTP, IARC AND OTHERS. EVIDENCE FOR ITS ABILITY TO
CAUSE CANCER HAS COME SOLELY FROM ITS INTERNAL MEDICAL USE.

Effects of Overexposure: SHORT TERM OVEREXPOSURE TO WELDING FUMES MAY
RESULT IN DIZZINESS, NAUSEA, DRYNESS/IR

RITATION OF NOSE, THROAT,
EYES. LONG TERM EXPOSURE TO WELDING FUMES CAN LEAD TO SIDEROSIS
(IRON DEPOSITS IN THE LUNGS) AND AFFECT PULMONARY FUNCTIONS.

Medical Cond Aggravated by Exposure: ALLERGIC REACTION IS POSSIBLE IN
SENSITIVE INDIVIDUALS, HOWEVER SUCH REACTION CANNOT BE PREDICTED
DUE TO VARIATION IN COMPOSITION AND QUANTITY OF THE DECOMPOSED
PRODUCTS.

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

First Aid: CALL FOR MEDICAL AID. EMPLOY FIRST AID TECHNIQUES RECOMMENDED

BY THE AMERICAN RED CROSS. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
CALL A PHYSICIAN. IF NOT BREATHING, BEGIN ARTIFICIAL RESPIRATION,
PREFERABLY MOUTH-TO-MOUTH. IF NO DETECTABLE PULSE, BEGIN EXTERNAL
HEART MASSAGE. IMMEDIATELY CALL A PHYSICIAN.

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

Flash Point: NONFLAMMABLE

Lower Limits: NOT GIVEN

Upper Limits: NOT GIVEN

Extinguishing Media: NONFLAMMABLE. USE EXTINGUISHING MEDIA SUITABLE FOR

SURROUNDING FIRE.

Fire Fighting Procedures: NONFLAMMABLE. USE STANDARD FIREFIGHTING
PROCEDURES FOR SURROUNDING MATERIALS IN THE FIRE.

Unusual Fire/Explosion Hazard: NONFLAMMABLE. WELDING ARC AND SPARKS CAN
IGNITE COMBUSTIBLE AND FLAMMABLE PRODUCTS. SEE ANSI Z49.1 "SAFETY
IN WELDING AND CUTTING" FOR FIRE PREVENTION, ETC.

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

Spill Release Procedures: COLLECT FOR REUSE OR DISPOSAL.

Neutralizing Agent: NONE SPECIFIED BY MANUF

ACTURER.

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Handling and Storage
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Handling and Storage Precautions:THORIUM DIOXIDE IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986.

Other Precautions:TUNGSTEN ELECTRODES ARE NON-CONSUMABLE. HOWEVER, SOME LOSS OF ELECTRODE METAL MAY OCCUR DEPENDING ON WELDING CONDITIONS. THE COMPOSITION AND QUANTITY OF WELDING FUMES AND GASES ARE DEPENDENT UPON THE METAL BEING WELDED, THE PROCESS/PROCEDURE

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Exposure Controls/Personal Protection
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Respiratory Protection:USE RESPIRABLE FUME RESPIRATOR OR AIR SUPPLIED RESPIRATOR WHEN WELDING IN CONFINED SPACE OR WHERE LOCAL EXHAUST OR VENTILATION DOES NOT KEEP EXPOSURE BELOW TLV. SELECT AS PER OSHA 29 CFR 1910.134.

Ventilation:USE ENOUGH VENTILATION LOCAL EXHAUST AT THE ARC OR BOTH TO KEEP THE FUMES AND GASES BELOW TLVS IN WORKERS BREATHING ZONE

Protective Gloves:WELDER'S GLOVES WHEN WELDING.

Eye Protection:HELMET, GOGGLES OR FACE SHIELD W/FILTER

Other Protective Equipment:WEAR HAND, HEAD AND BODY PROTECTION WHICH HELP TO PREVENT INJURY FROM RADIATION, SPARKS. SEE ANSI Z49.1.

Work Hygienic Practices:WASH HANDS THOROUGHLY WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES.

Supplemental Safety and Health

WELDER SHOULD BE TRAINED TO KEEP HIS HEAD OUT OF FUMES AND NOT TO TOUCH LIVE ELECTRICAL PARTS AND TO INSULATE HIMSELF FROM WORK AND GROUND.

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Physical/Chemical Properties
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HCC:N1

Boiling Pt:=3126.7C, 5660.F

Melt/Freeze Pt:=1876.7C, #####F

Spec Gravity:19.3

pH:NA

Evaporation Rate & Reference:NIL

Solubility in Water:INSOLUBLE

Appearance and Odor:GRAY METAL ROD, NO ODOR

Percent Volatiles by Volume:NIL

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Stability and Reactivity Data
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Stability Indicator/Materials to Avoid:YES
NONE SPECIFIED BY MANUFACTURER.

Stability Condition to Avoid

d:NONE SPECIFIED BY MANUFACTURER.

Hazardous Decomposition Products:GASEOUS REACTION PRODUCTS FROM WELDING ARC MAY INCLUDE OXIDES OF CARBON, OZONE & NITROGEN OXIDES MAY BE FORMED BY RADIATION FROM THE ARC.

===== Toxicological Information =====

Toxicological Information:ACGIH 1988-1989 RECOMMENDED LIMIT FOR WELDING FUME, NOT OTHERWISE CLASSIFIED (NOC) IS 5 MG/M3. TLV-TWA'S SHOULD BE USED AS GUIDE IN THE CONTROL OF HEALTH HAZARDS AND NOT AS FINE LINES BETWEEN SAFE AND DANGEROUS CONCENTRATIONS.

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

Waste Disposal Methods:DISCARD ANY PRODUCT, RESIDUE, DISPOSABLE CONTAINER OR LINER IN AN ENVIRONMENTALLY ACCEPTABLE MANNER, IN FULL COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

===== Regulatory Information =====

SARA Title III Information:THORIUM DIOXIDE IS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986.

State Regulatory Information:CALIFORNIA PROPOSITION 65 - THIS PRODUCT WHEN USED FOR WELDING/ CUTTING PRODUCES FUMES OR GASES WHICH CONTAIN CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS: CARBON MONOXIDE , THORIUM DIOXIDE. INGREDIENTS OF THIS PRODUCT ARE LISTED ON RIGHT-TO-ACT OF FOLLOWING STATES: MA, NJ, PA.

===== Other Information =====

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