

TELEDYNE MCKAY -- 316L STAINLESS STEEL COVERED ELECTRODE -- 3439-01-167-0696  
===== Product Identification =====

Product ID:316L STAINLESS STEEL COVERED ELECTRODE

MSDS Date:03/01/1989

FSC:3439

NIIN:01-167-0696

MSDS Number: BJYCC

=== Responsible Party ===

Company Name:TELEDYNE MCKAY

Address:850 GRANTLEY RD

Box:1509

City:YORK

State:PA

ZIP:17405

Country:US

Info Phone Num:717-849-2455 FAX:717-849-2365

Emergency Phone Num:717-845-7581

CAGE:76254

=== Contractor Identification ===

Company Name:HOBART BROS CO MCKAY WELDING PRODUCTS DIV

Address:400 TRADE SQ E

Box:City:TROY

State:OH

ZIP:45373-2900

Country:US

Phone:513-332-5706

CAGE:76254

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

Ingred Name:MANGANESE (SARA III)

CAS:7439-96-5

RTECS #:OO9275000

Fraction by Wt: 1.5%

Other REC Limits:NONE SPECIFIED

OSHA PEL:(C) 5 MG/M3 DUST

ACGIH TLV:5 MG/M3 DUST 9293

Ingred Name:CHROMI

UM (SARA III)  
CAS:7440-47-3  
RTECS #:GB4200000  
Fraction by Wt: 18%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:1 MG/M3  
ACGIH TLV:0.5 MG/M3; 9192  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:NICKEL (SARA III)  
CAS:7440-02-0  
RTECS #:QR5950000  
Fraction by Wt: 13.2%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:1 MG/M3  
ACGIH TLV:1 MG/M3; 9192

Ingred Name:MOLYBDENUM  
CAS:7439-98-7  
RTECS #:QA4680000  
Fraction by Wt: 2.25%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:15 MG/M3 TDUST  
ACGIH TLV:10 MG/M3; 9293

Ingred Name:IRON  
CAS:7439-89-6  
RTECS #:NO4565500  
Fraction by Wt: 64.7%  
Other REC Limits:NONE SPECIFIED

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===== Hazards Identification =====  
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LD50 LC50 Mixture:UNCLASSIFIED WELDING FUMES=5MG/M3 PEL  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO  
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:NO  
Health Hazards Acute and Chronic:CHROMIUM: MAY CAUSE LUNG CHANGES.  
COBALT: MAY CAUSE RESPIRATORY IRRITATION & DISEASE. IRON: MAY CAUSE  
X-RAY CHANGES OF TH

E LUNGS. MANGANESE: MAY CAUSE METAL FUME FEVER, AFFECT THE NERVOUS SYSTEM & RESPIRATORY SYSTEM DISEASE. MOLYBDENUM: MAY CAUSE IRRITATION. NICKEL: MAY CAUSE RESPIRATORY DISEASE & ALLERGIC SKIN RASH.

Explanation of Carcinogenicity:NICKEL, COBALT-CHROMIUM ALLOYS, AND CHROMIUM HAVE BEEN IDENTIFIED BY IARC AND/OR NTP AS POTENTIAL CANCER CAUSING AGENTS.

Effects of Overexposure:EXPOSURE TO WELDING FUMES MAY CAUSE METAL FUME FEVER WITH SYMPTOMS OF CHILLS, FEVER, NAUSEA, COUGH, DRY THROAT, WEAKNESS, MUSCLE ACHES, AND A SWEET OR METALLIC TASTE IN THE MOUTH. PROLONGED OR REPEATED EXPOSURE MAY CAUSE DIFFICULTY IN WALKING, WEAKNESS OR CRAMPS IN THE LEGS, HOARSENESS, MEMORY LOSS, SKIN SENSITIZATION.

Medical Cond Aggravated by Exposure:PRE-EXISTING CHRONIC SKIN, EYE OR RESPIRATORY DISORDERS MAY BE AGGRAVATED IF INDIVIDUALS ARE REPEATEDLY OVEREXPOSED TO FUMES AND DUST.

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

First Aid:INH

ALATION: REMOVE TO FRESH AIR. CONSULT A PHYSICIAN. EYE: FLUSH IMMEDIATELY WITH LARGE AMOUNTS OF WATER FOR 15 MINUTES. GET MEDICAL ATTENTION. SKIN: WASH WITH SOAP AND WATER. INGESTION: WHILE INGESTION OF LARGE ENOUGH QUANTITIES TO CAUSE HEALTH EFFECTS IS UNLIKELY, CONSULT A PHYSICIAN IF IT OCCURS.

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

Autoignition Temp:Autoignition Temp Text:NONE

Extinguishing Media:USE EXTINGUISHING MEDIA SUITABLE FOR SURROUNDING

FIRE.

Unusual Fire/Explosion Hazard:NONE

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===== 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.

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

Handling and Storage Precautions:WEAR GLOVES AND FLAME RETARDANT CLO

THING 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.

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

Respiratory Protection:WEAR NIOSH APPROVED RESPIRATORS FOR PROTECTION

AGAINST AIRBORNE DUST OR FUMES. RESPIRATORS SHOULD BE USED IN ACCORDANCE WITH 29CFR 1910.134.

Ventilation:USE LOCAL AND GENERAL VENTILATION TO KEEP AIRBORNE CONCENTRATIONS OF DUST OR FUMES BELOW THE TLV DURING USE.

Protective Gloves:WELDERS LEATHER GLOVES

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

Other Protective Equipment:BARRIER CREAMS MAY BE NECESSARY TO PREVENT SKIN SENSITIZATION AND DERMATITIS.

Work Hygienic Practices:WASH THOROUGHLY BEFORE EATING OR SMOKING.

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

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

HCC:N1

V

apor Pres:0

Solubility in Water:NEGLIGIBLE

Appearance and Odor:0.156 INCH DIAMETER BY 14 INCH LONG STAINLESS STEEL COVERED WELDING ROD.

Percent Volatiles by Volume:0

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

Stability Indicator/Materials to Avoid:YES

STRONG MINERAL ACIDS

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

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

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Waste Disposal Methods:RECYCLE OR DISPOSE IN ACCORDANCE WITH FEDERAL,  
STATE & LOCAL REGULATIONS.

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