

TECHALLOY MARYLAND INC -- TECHALLOY COVERED ELECTRODES, 7018 -- 3439-00-465-1919  
===== Product Identification =====

Product ID:TECHALLOY COVERED ELECTRODES, 7018

MSDS Date:09/01/1989

FSC:3439

NIIN:00-465-1919

MSDS Number: BSYKB

=== Responsible Party ===

Company Name:TECHALLOY MARYLAND INC

Address:2310 CHESAPEAKE AVE

City:BALTIMORE

State:MD

ZIP:21222

Country:US

Info Phone Num:301-633-9300; 800-638-

1458

Emergency Phone Num:301-633-9300; 800-638-1458

CAGE:59711

=== Contractor Identification ===

Company Name:TECHALLOY COMPANY, INC.

Address:2310 CHESAPEAKE AVENUE

Box:City:BALTIMORE

State:MD

ZIP:21222

Country:US

Phone:410-633-9300; 800-638-1458

CAGE:59711

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

Ingred Name:IRON

CAS:7439-89-6

RTECS #:NO4565500

Fraction by Wt: 55-70%

OSHA PEL:10 MG/M3

ACGIH TLV:5 MG/M3

Ingred Name:MANGANESE (SARA III)

CAS:7439-96-5

RTECS #:OO9275

000

Fraction by Wt: 0.5-2%

Other REC Limits:1 MG/M3;3 STEL(FUME)

OSHA PEL:5 MG/M3 DUST, C

ACGIH TLV:5 MG/M3 DUST

Ingred Name:SILICON

CAS:7440-21-3

RTECS #:VW0400000

Fraction by Wt: 0.1-1%

Other REC Limits:3 MG/M3 (SIO\*2)

OSHA PEL:10MG/M3 TDUST;5 RESP

ACGIH TLV:10MG/M3 TDUST

Ingred Name:CHROMIUM (SARA III)

CAS:7440-47-3

RTECS #:GB4200000

Fraction by Wt: 0-3.5%

OSHA PEL:1 MG/M3

ACGIH TLV:0.5 MG/M3

EPA Rpt Qty:1 LB

DOT Rpt Qty:1 LB

Ingred Name:MOLYBDENUM

CAS:7439-98-7

RTECS #:QA4680000

Fraction

by Wt: 0-1%

Other REC Limits:15 MG/M3 (MFR)

OSHA PEL:10 MG/M3 TDUST

ACGIH TLV:10 MG/M3

Ingred Name:CALCIUM CARBONATE

CAS:1317-65-3

RTECS #:EV9580000

Fraction by Wt: 5-12%

OSHA PEL:15MG/M3 TDUST;5 RESP

ACGIH TLV:10MG/M3 TDUST

Ingred Name:FLUORSPAR; (CALCIUM FLUORIDE)

CAS:14542-23-5

Fraction by Wt: 3-10%

OSHA PEL:2.5 MG/M3 (AS F)

ACGIH TLV:2.5 MG/M3 (AS F)

Ingred Name:POTASSIUM TITANATE

CAS:12030-97-6

Fraction by Wt: 0-2%

OSHA PEL:N/K

ACGIH TLV:10 MG/M3 (MFR)

Ingred Name:FELDSPAR

CAS:68476-2

5-5  
Fraction by Wt: 0-2%  
OSHA PEL:N/K  
ACGIH TLV:2 MG/M3 (MFR)

Ingred Name:ALUMINUM OXIDE (2:3); (ALPHA-ALUMINA) (ALUMINUM OXIDE)  
(EPA LISTS ONLY FIBROUS FORMS) (SARA III)

CAS:1344-28-1  
RTECS #:BD1200000  
Fraction by Wt: 0-1%  
Other REC Limits:5 MG/M3 (MFR)  
OSHA PEL:10 MG/M3 TDUST  
ACGIH TLV:10 MG/M3 TDUST (AL)

Ingred Name:SILICON DIOXIDE

CAS:7631-86-9  
Fraction by Wt: 0-2%  
OSHA PEL:5 MG/M3 (MFR)  
ACGIH TLV:3 MG/M3 (MFR)

Ingred Name:TITANIUM OXIDE; (TITANIUM DIOXIDE)

CAS:13463-67-7  
RTECS #:X  
R2275000  
Fraction by Wt: 0-3%  
Other REC Limits:15 MG/M3 (MFR)  
OSHA PEL:10 MG/M3 TDUST  
ACGIH TLV:10 MG/M3 TDUST

Ingred Name:POTASSIUM SILICATE

CAS:1312-76-1  
Fraction by Wt: 0-3%  
OSHA PEL:N/K  
ACGIH TLV:5 MG/M3 (MFR)

Ingred Name:SODIUM SILICATE

CAS:1344-09-8  
Fraction by Wt: 0-5%  
OSHA PEL:N/K  
ACGIH TLV:5 MG/M3 (MFR)

Ingred Name:SODIUM FLUOALUMINATE; (CRYOLITE)

CAS:15096-52-3  
RTECS #:WA9625000  
Fraction by Wt: 0-2%  
OSHA PEL:2.5 MG/M3(AS F)(MFR)  
ACGIH TLV:2.5 MG/M3(AS F)(MFR)

Ingred Name:MAGNESIU

M (II) CARBONATE (1:1); (MAGNESITE)

CAS:546-93-0

RTECS #:OM2470000

Fraction by Wt: 0-2%

OSHA PEL:15MG/M3 TDUST;5 RESP

ACGIH TLV:10MG/M3 TDUST

Ingred Name:POTASSIUM HYDROXIDE (SARA III)

CAS:1310-58-3

RTECS #:TT2100000

Fraction by Wt: 0-0.5%

OSHA PEL:2 MG/M3, C

ACGIH TLV:2 MG/M3, C

EPA Rpt Qty:1000 LBS

DOT Rpt Qty:1000 LBS

Ingred Name:SUPDAT:NITROGEN OXIDES MAY BE FORMED BY RADIATION FROM THE  
ARC. CONTACT NEHC FOR FURTHER INFO .

RTECS #:9999999ZZ

Ingred Name:OTHER PREC:WELDING & CUTTING, &

WELDING HANDBOOK", VOL 1,

CH 9, "SAFE PRACTS IN WELDING & CUTTING", AVAIL FROM (ING 20)

RTECS #:9999999ZZ

Ingred Name:ING 19:AMERICAN WELDING SOCIETY, INC, 550 W. LE JEUNE RD,

P.O. BOX 351040, MIAMI, FL 33135, TEL (800)443-9353.

RTECS #:9999999ZZ

Ingred Name:EYE PROT:LENS. PROVIDE PROT SCREENS & FLASH GOGGS, IF NEC,

TO SHIELD OTHERS. AS RULE OF THUMB START W/SHADE THAT(ING 22)

RTECS #:9999999ZZ

Ingred Name:ING 21:IS TOO DARK TO SEE WELDING ZONE. THEN GO TO NEXT

LIGHTER SHADE

WHICH GIVES SUFFICIENT VIEW OF WELD ZONE.

RTECS #:9999999ZZ

Ingred Name:OTHER PROT EQUIP:INCLS WELDER'S GLOVES & PROT FACE SHLD, &

MAY INCL ARM PROTECTORS, APRONS, HATS, SHOULDER PROT,(ING 24)

RTECS #:9999999ZZ

Ingred Name:ING 23:AS WELL AS DARK SUBSTANTIAL CLOTHING.

RTECS #:9999999ZZ

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

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.

Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO

Reports of Carcinogenicity:NTP:Y

ES IARC:YES OSHA:NO

Health Hazards Acute and Chronic:ELEC ARC-WELDING MAY CREATE ONE/MORE OF FOLLOWING HLTH HAZS:FUMES & GASES CAN BE DANGEROUS TO YOUR HLTH. ARC RAYS CAN INJURE EYES & BURN SKIN. ELEC SHOCK CAN KILL. ACUTE:SHORT-TERM OVEREXP TO WELDING FUMES MAY RSLT IN DISCOMFORT SUCH AS DIZZ, NAUS OR DRYNESS/IRRIT OF NOSE, THROAT/EYES, TIGHTNESS IN (EFTS OF OVEREXP)

Explanation of Carcinogenicity:CHROMIUM:IARC MONOGRAPHS, VOL 49, PG 49, 1990:GRP 1. NTP 7TH ANNUAL RPT ON CARCINS, 1992:KNOWN TO BE CARCINOGENIC.

Effects of Overexposure:HLTH HAZ:CHEST, FEVER & ALLERGIC RXNS. CHRONIC:LONG-TERM OVEREXP TO WELDING FUMES MAY LEAD TO SIDEROSIS (IRON DEPOSIT IN LUNGS) & IS BELIEVED BY SOME INVESTIGATORS TO AFFECT PULMONARY FUNCTION.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:REMOVE TO FRESH AIR, OBTAIN MEDICAL ATTENTION. EMPLOY FIRST AID TECHNIQUES RECOMMENDED BY THE AMERICAN RED CROSS. INGEST:CALL MD IMMEDIATELY . INHAL:REMOVE TO FRESH AIR. SUPPORT BREATHING (GIVE O\*2/ARTF RESP) . EYES:IMMEDIATELY FLUSH W/POTABLE WATER FOR A MINIMUM OF 15 MINUTES, SEEK ASSISTANCE FROM MD . SKIN:FLUSH W/COPIOUS AMOUNTS OF WATER. CALL MD .

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

Extinguishing Media:MEDIA SUITABLE FOR SURROUNDING FIRE . Fire Fighting Procedures:USE NIOSH/MSHA APPROVED SCBA & FULL PROTECTIVE EQUIPMENT . Unusual Fire/Explosion Hazard:SPARKS CAN IGNITE COMBUSTIBLES & FLAMMABLES. REFER TO ANSI Z29.1 FOR THE USE OF WELDING & ALLIED PROCEDURES.

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

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:READ & UNDERSTAND MFR'S INSTRUCTIONS & PREC LBL ON PROD. TRAIN WELDER TO KEEP HIS HEAD OUT OF FUMES. USE

EXHST SYS TO CLEAR WELDING FUMES.

Other Precautions: TRAIN WELDER NOT TO TOUCH LIVE ELEC PARTS & TO INSULATE HIMSELF FROM WORK & GROUND. MAKE SURE THAT INHALED AIR DOES NOT CNTN CONSTITUENTS ABOVE PELS. OTHER PRECS FOR ADDNL SAFETY INFO ON WELDING & CUT TING, SEE ANSI Z49.1, "SAFETY IN(ING 19)

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

Respiratory Protection: USE NIOSH/MSHA APPROVED RESPIRABLE FUME RESPIRATOR OR AIR SUPPLIED RESPIRATOR WHEN WELDING I N CONFINED

SPACE OR WHERE LOCAL EXHAUST OR VENTILATION DOES NOT KEEP EXPOSURE BELOW RECOMMENDED EXPOSURE LIM IT.

Ventilation: USE ENOUGH VENT, LOCAL EXHAUST AT ARC, OR BOTH, TO KEEP FUMES & GASES FROM WORKER'S BREATHING ZONE & GENERAL AREA.

Protective Gloves: WELDER'S GLOVES.

Eye Protection: WEAR HELMET/FACE SHLD W/FILTER (ING 21)

Other Protective Equipment: WEAR HAND, HEAD & BODY PROT WHICH HELP TO PVNT INJURY FROM RADIA, SPKS & ELEC SHOCK. SEE ANSI Z49.1. AT MIN THIS(ING 23)

Wo rk Hygienic Practices: NONE SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health

HAZ DECOMP PROD: OXIDES OF MANGANESE, SILICON, CHROMIUM, MOLYBDENUM ALONG W/FLUORIDES. COMPOSITION & QUALITY OF WELDING FUMES & GASES DEPEND ON METAL BEING WELDED, PROCESS, ELECTRODES, COATINGS ON META L BEING WELDED, WORK AREA CONDITIONS, ETC. GASEOUS PRODS MAY INCLUDE CARBON MONOXIDE & CARBON DIOXIDE. OZONE & (ING 18)

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

Appeara nce and Odor: NONE SPECIFIED BY MANUFACTURER.

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

Stability Indicator/Materials to Avoid: YES  
NONE

Stability Condition to Avoid: NONE, UNLESS OTHERWISE SPECIFIED.

Hazardous Decomposition Products: REASONABLY EXPECTED FUME CONSTITUENTS OF THESE PRODS COULD INCL PRIMARILY OXIDES OF IRON; SECONDARILY COMPLEX (SUPDAT)

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

Waste Disposal Methods: PREVENT WASTE FROM CO

## NTAMINATING SURROUNDING

ENVIRONMENT. DISCARD ANY PRODUCT RESIDUE IN DISPOSABLE CONTAINER OR LINER IN AN ENVIRONMENTALLY ACCEPTABLE MANNER, IN FULL COMPLIANCE W/FEDERAL, STATE & LOCAL REGULATIONS.

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