

**ENGLEHARD CORP. SPECIALTY METALS DIV. -- SILVALOY 50;SILVER-COPPER-ZINC-CADMIUM BRAZING ALLOY -- 3439-00-262-4188**=====  
Product Identification  
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Product ID:SILVALOY 50;SILVER-COPPER-ZINC-CADMIUM BRAZING ALLOY  
MSDS Date:04/07/1994  
FSC:3439  
NIIN:00-262-4188  
MSDS Number: BDPYL  
=== Responsible Party ===  
Company Name:ENGLEHARD CORP. SPECIALTY METALS DIV.  
Address:235 KILVERT ST  
City:WARWICK  
State:RI  
ZIP:02886  
Country:US  
Info Phone Num:401-739-9550  
Emergency Phone Num:202-483-7616/800-424-9300 (CHEMTREC)  
CAGE:86337

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Contractor Identification  
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Company Name:ENGELHARD CORP  
Address:235 KILVERT ST  
Box:City:WARWICK  
State:RI  
ZIP:02886  
Country:US  
Phone:401-739-9550  
CAGE:86337

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Composition/Information on Ingredients  
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Ingred Name:CADMIUM (SARA 313) (CERCLA)  
CAS:7440-43-9  
RTECS #:EU9800000  
Fraction by Wt: 18.0%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:0.2 MG/M3 DUST; Z-2  
ACGIH TLV:0.01 MG/M3 DUST;9596  
EPA Rpt Qty:10 LBS  
DOT Rpt Qty:10 LBS

Ingred Name:COPPER (SARA 313) (CERCLA)  
CAS:7440-50-8  
RTECS #:GL5325000  
Fraction by Wt: 15.5%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:0.1MG/M3 FUME/1 DUST  
ACGIH TLV:0.2 MG/M3 FUME; 9596  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

Ingred Name:SILVER (SARA 313) (CERCLA)  
CAS:7440-22-4  
RTECS #:VW3500000  
Fraction by Wt: 50.0%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:0.01 MG/M3  
ACGIH TLV:0.1 MG/M3; 9596

EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:ZINC (SARA 313) (CERCLA) (AS OXIDE)  
CAS:7440-66-6  
RTECS #:ZG8600000  
Fraction by Wt: 16.5%  
Other REC Limits:NONE RECOMMENDED  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

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

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES  
Health Hazards Acute and Chronic:EYE CONTACT MAY CAUSE IRRIT.SKIN  
CONTACT MAY CAUSE IRRIT.INHAL MAY CAUSE EXCESSIVE CADMIUM  
ABSORPTION RESULTING IN PULM EMPHYSEMA &/OR KIDNEY  
DYSFUNCTION.INGEST MAY CAUSE COPPER POISONING.NOTE:INHAL O F FUMES  
MAY CAUSE FLU-LIKE ILLNESS CALLED METAL FUME FEVER.TYPICALLY METAL  
FUME FEVER BEGINS 4-12HRS AFT SUFFI(SIGN/SYM)  
Explanation of Carcinogenicity:PER  
MSDS:CARCINOGENICITY:NTP/IARC/OSHA-YES.CD & CD CMPDS. STATE OF  
CALIFORNIA PROP 65.  
Effects of Overexposure:HEALTH:EXPO TO FRESHLY FORMED FUMES.1ST  
SYMPTOMS-METALLIC TASTE, DRYNESS/IRRIT OF THROAT.COUGH/SHORTNESS OF  
BREATH MAY OCCUR ALONG W/HEAD, FTG, NAU, VOMIT, MUSCLE/JOINT  
PAIN, FEVER/CHILLS.SYNDROME RUNS ITS COURSE IN 24-48HRS.HEALTH  
EFFECTS ONLY APPLY IF DUST/FUME FORMED.CHRONIC:ARGYRIA, KIDNEY  
DMG, INCRE LUNG CANC RISK.  
Medical Cond Aggravated by Exposure:MAY AGGRAVATE EXISTING MED  
CONDITIONS SUCH AS RESPIRATORY &/OR KIDNEY AILMENTS.INDIVIDUALS  
W/WILSON'S DISEASE ARE AT INCREASED RISK OF COPPER POISONING.

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

First Aid:EYE:FLUSH W/PLENTY OF WATER.IRRIT DVLPS CALL DR.SKIN:FLUSH  
W/PLENTY OF WATER.IRRIT PERSISTS CALL DR.INHAL:EXPO TO EXCESSIVE  
LEVELS OF METAL FUMES REMOVE TO FRESH AIR.SEEK MED  
ATTN.INGEST:PROCEDURES NO RMALLY NOT NEEDED.IF LG QUANTITITES  
AREINGESTED SEEK MED ADVICE.

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

Flash Point:NA  
Autoignition Temp:Autoignition Temp Text:NA  
Lower Limits:NA  
Upper Limits:NA  
Extinguishing Media:USE CARBON DIOXIDE,CHEMICAL FOAM OR DRY  
CHEMICAL.USE ANY MEANS FOR EXTINGUISHING SURROUNDING FIRE.  
Fire Fighting Procedures:WEAR POSITIVE-PRESSURE SELF-CONTAINED  
BREATHING APPARATUS.  
Unusual Fire/Explosion Hazard:NOT FIRE/EXPLO HAZ IN SOLID FORM.FINELY  
DIVIDED DUST MAY IGN/BURN RAPIDLY WHEN MIX W/AIR IN PROPER  
PROPORTIONS.TOXIC METAL FUMES MAY BE RELEASED IN FIRE SITUATI

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

Spill Release Procedures:CONTAIN SPILLAGE & SCOOP UP OR

VACUUM.NOTIFICATION OF NRC 800-424-8802 MAY BE  
 REQUIRE.REFER:EPA, DOT, APPLICABLE STATE/LOC REG FOR CURRENT RESPONSE  
 INFO.RECOMMEND USER ESTABLISH SPILL PREVENTION/CNTRL/CO UNTERMEASURE  
 PLAN, INCLUDE PROCEDURES APPLIC(SUPPL)  
 Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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 Handling and Storage  
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Handling and Storage Precautions:STORE IN COOL DRY LOCATION AWAY FRM  
 INCOMPAT MATLS.AVOID CONTACT W/DUST/MISTS/FUMES RESULTING FROM USE  
 OF PRODUCT.USE ONLY W/ADEQUATE VENTILATION.

Other Precautions:CONSULT MOST RECENT OSHA CADMIUM STD(1910.1027)& IT  
 ATTACHMENTS/APPENDICES/ETC FOR FULL REQMTS SOME OF WHICH ARE NOT  
 COVERED IN THIS MSDS.PERSONNEL SMPL PROCEDURE:METALLIC COMPO:NIOSH  
 MANUAL OF ANALYT ICLA METHODS 3RD ED VOL1,METHOD 7300.

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 Exposure Controls/Personal Protection  
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Respiratory Protection:NIOSH/MSHA APPROVED RESPIRATOR IS RECOMMENDED IF  
 DUST IS GENERATED.

Ventilation:GEN/LOC EXHAU VENTI AS NECESSARY TO CONTROL ANY AIR  
 CONTAMINANTS TO W/IN PELS/TLV DURING USE OF PRODUCT.

Protective Gloves:HEAT RESISTANT GLOVES.

Eye Protection:SAF GLASSES (W/SIDE SHIELDS)

Other Protective Equipment:BODY PROTECTION AS NECESSARY-PREVENT SKIN  
 CONTACT.REFER:ANSI/ASC Z49.1-88(SAF IN WELD/CUT)BY AWS FOR INFO  
 SELECTION PPE.

Work Hygienic Practices:WASH THOROUGHLY AFT HNDLG.DONT EAT/DRINK/SMOKE  
 IN WORKAREA.CONTAINS SARA SEC 313 TOXIC CHEMS SUBJ TO REPORTING  
 REQMTS.

Supplemental Safety and Health

INCOMPA:RUBB. SPILL:TO PROPER STORAGE, CNTRL, CLEANUP SPILL, REUSE/DISPO  
 AS APPROP.ADDN PROPER EXPO CNTRL/PERSONAL PROT EQPMT SHOULD BE  
 USED.DISPO OF MATL SHOULD BE IAW DISPO SEC. DISPO:CHEM ADDN, PROCESS  
 , OTHERWISE ALTER MATL MAY MAKE WASTE MGMT INFO  
 INCOMP, INACCUR, INAPPRO.LOC REGS VARY-MUST BE IAW FED/STATE/LOC  
 ENVIRO REG

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 Physical/Chemical Properties  
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HCC:N1

Boiling Pt:B.P. Text:N/DETERMINE

Melt/Freeze Pt:M.P/F.P Text:1148F, 620C

Decomp Temp:Decomp Text:NP

Vapor Pres:NA

Vapor Density:NA

Spec Gravity:9.45

pH:NA

Viscosity:NP

Evaporation Rate & Reference:NA

Solubility in Water:INSOLUBLE

Appearance and Odor:METALLIC WIRE, ROD OR STRIP, ODORLESS

Percent Volatiles by Volume:NP

Corrosion Rate:NP

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 Stability and Reactivity Data  
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Stability Indicator/Materials to Avoid:YES

STRONG ACIDS/BASES, STRONG OXIDIZERS, ACETYLENE, AMMONIA, H2O2, MG  
 METAL, HALOGENS, AMMONIUM NITRATE, H2S, SE, TE, S, CHLORINATE (SU)

Stability Condition to Avoid:NONE EXPECTED  
Hazardous Decomposition Products:TOXIC METAL OXIDES ARE EMITTED WHEN  
HEATED ABOVE MELTING PT.AMT OF FUME EVOLVED INCREASES AS  
TEMPERATURE RISES.

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

Waste Disposal Methods:EPA WASTE#:D006/D011.PROD MAY BE HAZ WASTE UNDER  
EPA WASTE REGS.BEF DISPO PROD/MIXTURE W/PROD SHOULD BE TESTED TO TC  
UNDER EPA HAZ WASTE REGS TCLP TEST PROCEDURES,40CFR261,ET  
SEQ.DISPO/RECYC/RECLAMAT REQMTS VARY.Consult W/STATE/LOC REG  
AUTHORIT(SUPP)

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