

ENGELHARD CORP, ENGINEERED MATERIALS GROUP -- SILVER-COPPER-ZINC-CADMIUM BRAZING ALLOY -- 3439-00-492-3799=====
Product Identification
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Product ID:SILVER-COPPER-ZINC-CADMIUM BRAZING ALLOY
MSDS Date:11/13/1997
FSC:3439
NIIN:00-492-3799
Status Code:A
MSDS Number: CKPST
=== Responsible Party ===
Company Name:ENGELHARD CORP, ENGINEERED MATERIALS GROUP
Address:235 KILVERT ST
City:WARWICK
State:RI
ZIP:02886
Country:US
Info Phone Num:401-739-9550
Emergency Phone Num:401-739-9550
Resp. Party Other MSDS Num.:PRODUCT: SILVALOG 45 - CODE:AG-CU-ZN-CD
Chemtec Ind/Phone:(800)424-9300
CAGE:TO017

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Contractor Identification
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Company Name:ENGELHARD CORP, ENGINEERED MATERIALS GROUP
Address:235 KILVERT ST
Box:City:WARWICK
State:RI
ZIP:02886
Country:US
Phone:401-739-9550
CAGE:TO017

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Composition/Information on Ingredients
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Ingred Name:SILVER
CAS:7440-22-4
RTECS #:VW3500000
Minumum % Wt:19.
Maxumum % Wt:60.
OSHA PEL:0.01 MG/M3
ACGIH TLV:0.1 MG/M3
EPA Rpt Qty:1 LB
DOT Rpt Qty:1 LB

Ingred Name:COPPER
CAS:7440-50-8
RTECS #:GL5325000
Minumum % Wt:5.
Maxumum % Wt:50.
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:ZINC
CAS:7440-66-6
RTECS #:ZG8600000
Minumum % Wt:5.

Maxumum % Wt:40.
 EPA Rpt Qty:1000 LBS
 DOT Rpt Qty:1000 LBS

Ingred Name:CADMIUM
 CAS:7440-43-9
 RTECS #:EU9800000
 Minumum % Wt:1.
 Maxumum % Wt:30.
 OSHA PEL:SEE 1910.1027
 EPA Rpt Qty:10 LBS
 DOT Rpt Qty:10 LBS

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
 Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES
 Health Hazards Acute and Chronic:EYE: MAY CAUSE IRRITATION. SKIN: MAY
 CAUSE IRRITATION. INHALATION: MAY CAUSE RESPIRATORY TRACT
 IRRITATION, CHEST PAIN & LABORED BREATHING. SEVERE EXPOSURE MAY
 LEAD TO PULMONARY EDEMA OR EXECSSIVE CADM IUM ABSORPTION RESULTING
 IN PULMONARY EMPHYSEMA, &/OR LIVER & KIDNEY DYSFUNCTION. INGESTION:
 INGESTION IS HARMFUL. MAY CAUSE ABDOMINAL PAIN, NAUSEA, VOMITING &
 DIARRHEA. COPPER POISONING CAN RESULT IN HEMOLYTIC ANEMIC &
 KIDNEY, LIVER & SPLEEN DAMAGE. CHRONIC: OVEREXPOSURE MAY LEAD TO
 COPPER POISONING, RESULTING IN HEMOLYTIC ANEMIC & LIVER, KIDNEY &
 SPLEEN DAMAGE.

Explanation of Carcinogenicity:IT CONTAINS CADMIUM COMPOUND.

Effects of Overexposure:INHALATION OF FUMES MAY CAUSE A FLU-LIKE
 ILLNESS CALLED METAL FUME FEVER. TYPICALLY METAL FEVER BEGINS FOUR
 TO TWELEVE HOURS AFTER SUFFICIENT EXPOSURE TO FRESHLY FORMED FUMES.
 THE FIRST SYMPTOMS ARE A METALLIC TASTE, DRYNESS AND IRRITATION OF
 THE THROAT. COUGH AND SHORTNESS OF BREATH MAY OCCUR ALONG WITH
 HEADACHE, FATIGUE, NAUSEA, VOMITING, MUSCLE AND JOINT PAIN, FEVER
 AND CHILLS. THE SYNDROM RUNS ITS COURSE IN 24-48 HOURS.

Medical Cond Aggravated by Exposure:MAY ADVERSELY AFFECT EXISTING
 MEDICAL CONDITIONS, SUCH AS EYE, SKIN, RESPIRATORY, BLOOD, LIVER
 &/OR KIDNEY AILMENTS. INDIVIDUALS WITH WILSON'S DISEASE ARE AT
 INCREASED RISK OF COPPER POISONING.

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

First Aid:EYE: FLUSH EYES WITH PLENTY OF WATER. IF IRRITATION DEVELOPS,
 CALL A PHYSICIAN. SKIN: IMMEDIATELY WASH SKIN WITH SOAP & PLENTY OF
 WATER. IF IRRITATION PERSISTS, CALL A PHYSICIAN. INHALATION: IF
 EXPOSE D TO EXCESSIVE LEVELS OF METAL FUMES, REMOVE TO FRESH AIR &
 SEEK MEDICAL ATTENTION. INGESTION: IF PERSON IS CONSCIOUS & ABLE
 TO SWALLOW, GIVE LARGE AMOUNTS OF WATER TO DILUTE. IF VOMITING
 OCCURS, KEE P HEAD BELOW HIPS TO HELP PREVENT ASPIRATION. GET
 MEDICAL ATTENTION IMMEDIATELY.

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

Autoignition Temp:Autoignition Temp Text:NOT AP
 Lower Limits:NOT APPLICAB
 Upper Limits:NOT APPLICAB
 Extinguishing Media:USE CARBON DIOXIDE, CHEMICAL FOAM OR DRY CHEMICAL.
 USE ANY MEANS FOR EXTINGUISHING SURROUNDING FIRE. DO NOT USE WATER
 ON METAL FIRES.
 Fire Fighting Procedures:WEAR NIOSH/MSHA APPROVED POSITIVE -PRESSURE

SELF CONTAINED BREATHING APPARATUS & PROTECTIVE CLOTHING AS SPECIFIED IN 29 CFR 1910.156

Unusual Fire/Explosion Hazard:NOT A FIRE EXPLOSION HAZARD IN SOLID FORM. FINELY DIVIDED DUST MAY IGNITE & BURN RAPIDLY WHEN MIXED WITH AIR IN THE PROPER PROPORTIONS. TOXIC METAL FUMES MAY BE RELEASED IN A FIRE SITUATION.

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

Spill Release Procedures:CONTAIN SPILLAGE & SCOOP UP OR VACUUM. NOTIFICATION OF THE NATIONAL RESPONSE CENTER (800-424-8802) MAY BE REQUIRED. REFER TO THE EPA, DOT & APPLICABLE STATE & LOCAL REGULATIONS FOR CURRENT RESPONSE INFORMATION.

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

Handling and Storage Precautions:WASH THOROUGHLY AFTER HANDLING. STORE IN A COOL, DRY LOCATION AWAY FROM INCOMPATIBLE MATERIALS. AVOID BREATHING ANY DUST. MIST OR FUMES RESULTING FROM THE USE OF THIS PRODUCT. USE ONLY WITH ADEQUATE VENTILATION. DO NOT EAT, DRINK, OR SMOKE IN WORK AREA.

Other Precautions:NOTE: CONSULT THE MOST RECENT OSHA CADMIUM STANDARD (1910.1027) & ITS ATTACHMENTS, APPENDICES, ETC, FOR FULL REQUIREMENTS, SOME OF WHICH ARE NOT COVERED IN THIS MATERIAL SAFETY DATA SHEET.

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

Respiratory Protection:IF DUST OR FUME IS GENERATED, A NIOSH/MSHA APPROVED RESPIRATOR MAY BE NECESSARY. FOLLOW ALL REQUIREMENTS FOR RESPIRATORY PROGRAMS & SELECTION SET FORTH IN THE OSHA REGULATIONS (29 CFR 1910.134) & IN A NSI Z88.2-92 (PRACTICES FOR RESPIRATOR PROTECTION)

Ventilation:GENERAL, LOCAL EXHAUST VENTILATION AS NECESSARY TO CONTROL ANY AIR CONTAMINANTS TO WITHIN THEIR PELs OR TLVs DURING THE USE OF THIS PRODUCT

Protective Gloves:NONE PROVIDED BY MFR.

Eye Protection:SAFETY GLASSES (WITH SIDE SHIELDS)

Other Protective Equipment:BODY PROTECTION AS NECESSARY TO PREVENT SKIN CONTACT. REFER TO ANSI/ASC Z49.1-94 (SAFETY IN WELDING, CUTTING & ALLIED PROCESSES), PUBLISHED BY AWS FOR FURTHER INFORMATION.

Work Hygienic Practices:NONE PROVIDED BY MFR.

Supplemental Safety and Health

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

HCC:N1

Boiling Pt:B.P. Text:NOT DETERMINED

Melt/Freeze Pt:=609.C, #####F

Decomp Temp:Decomp Text:NONE PROVIDED BY MFR.

Vapor Density:NOT APPLIC

Spec Gravity:8.71 TO 9.45 (H2O=1)

Viscosity:NONE PROVIDED BY MFR.

Solubility in Water:INSOLUBLE

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

Percent Volatiles by Volume:NONE PROVIDED

Corrosion Rate:NONE PROVIDED BY MFR

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

Stability Indicator/Materials to Avoid:YES

STRONG ACIDS & BASES, STRONG OXIDIZERS, ACETYLENE, AMMONIA, HYDROGEN PEROXIDE, CHLORINE, BROMINE, IODINE, TURPENTINE, MAGNESIUM METAL, AMMONIUM NITRATE, HYDROGEN SULFIDE

Stability Condition to Avoid:GENERALLY CONSIDERED STABLE.

Hazardous Decomposition Products:TOXIC METAL OXIDES ARE EMITTED WHEN HEATED ABOVE THE MELTING POINT. THE AMOUNT OF FUME EVOLVED INCREASES AS THE TEMPERTTURE RISES.

Conditions to Avoid Polymerization:WILL NOT OCCUR

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Ecological Information
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Ecological:NO DATA AVAILABLE.

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Disposal Considerations
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Waste Disposal Methods:AS LOCAL REGULATIONS MAY VARY, ALL WASTE MUST BE DISPOSED/RECYCLED/RECLAIMED IN ACCORDANCE WITH FEDERAL, STATE & LOCAL ENVIRONMENTAL CONTROL REGULATIONS. US EPA WASTE NUMBER: D006, D011.

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MSDS Transport Information
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Transport Information:NOT REGULATED.

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Regulatory Information
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SARA Title III Information:SARA 311 AND 312 HAZARD CATEGORIES: IMMEDIATE AND DELAYED HEALTH. THIS PRODUCT CONTAINS CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA SECTION 313: SILVER, COPPER, CADMIUM, AND ZINC.

State Regulatory Information:

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