

ENGLEHARD CORP. ENGINEERED MATERIALS DIV. -- SILVER-COPPER-PHOSPHORUS BRAZING  
ALLOY -- 3439-00-262-4182

===== Product Identification =====

Product ID:SILVER-COPPER-PHOSPHORUS BRAZING ALLOY

MSDS Date:11/16/1990

FSC:3439

NIIN:00-262-4182

MSDS Number: BJXXC

=== Responsible Party ===

Company Name:ENGLEHARD CORP. ENGINEERED MATERIALS DIV.

Address:ROUTE 152

City:PLAINVILLE

State:MA

ZIP:02762

Country:US

Info Phone Num:508-695-7811

Emergency Phone Num:508-695-7811

CAGE:86337

=== Contractor Identification ===

Company Name:ENGELHARD CORP

Address:235 KILVERT ST

Box:City:WARWICK

State:RI

ZIP:02886

Country:US

Phone:401-739-9550

CAGE:86337

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

Ingred Name:COPPER (SARA III)

CAS:7440-50-8

RTECS #:GL5325000

Fraction by Wt: 80%

Other REC Limits:NONE SPECIFIED

OSHA PEL:0.1MG/M3 FUME/1 DUST

ACGIH TLV:0.2MG/M3 FUME; 9192

EPA Rpt Qty:5000 LBS

DOT Rpt Qty:5000 LBS

Ingred Name:SILVER (SARA III)  
CAS:7440-22-4  
RTECS #:VW3500000  
Fraction by Wt: 15%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:0.01 MG/M3  
ACGIH TLV:0.1 MG/M3; 9192  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:PHOSPHOROUS (YELLOW) (SARA III)  
CAS:7723-14-0  
RTECS #:TH3500000  
Fraction by Wt: 5%  
Other REC Limits:NONE SPECIFIED  
OSHA PEL:0.1 MG/M3  
ACGIH TLV:0.1 MG/M3; 9192  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

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

Rout  
es of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:EYE CONTACT CAUSES MILD IRRITATION.  
METAL PARTICLES CAN INJURE EYE TISSUE. MOLTEN METAL CAN BURN THE  
SKIN. INHALATION OF COPPER FUMES MAY CAUSE METAL FUME FEVER,  
NAUSEA, NOSE AND THROAT IRRITATION. IN GESTION SYMPTOMS SIMILAR TO  
INHALATION ALTHOUGH THESE METALS ARE POORLY ABSORBED THROUGH THE  
GASTROINTESTINAL TRACT.  
Explanation of Carcino  
genicity:COMPONENTS NOT LISTED.  
Effects of Overexposure:PROLONGED OVEREXPOSURE TO SILVER CAN CAUSE A  
PERMANENT GRAY DISCOLORATION OF THE SKIN AND EYES CALLED ARGYRIA.  
COPPER CAN CAUSE COPPER POISONING WITH CAPILLARY DAMAGE, LIVER AND  
KIDNEY DAMAGE WITH PER MANENT DISCOLORATION OF THE SKIN AND EYES.  
PHOSPHORUS CAN CAUSE GASTROINTESTINAL DISTRESS, NECROSIS AND JAW  
DEFORMITY.  
Medical Cond Aggravated by Exposure:PERSONS WITH IMPAIRED RESPIRATORY  
FUNCTION OR PRE-EXISTING RESPI

RATORY, AND/OR SKIN DISEASES MAY BE  
AT INCREASED RISK FROM EXPOSURE TO THIS MATERIAL.

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

First Aid:INHALATION: REMOVE SUBJECT TO FRESH AIR. IF NOT BREATHING,  
GIVE ARTIFICIAL RESPIRATION PREFERABLE MOUTH-TO-MOUTH. IF BREATHING  
IS DIFFICULT, GIVE OXYGEN. CALL PHYSICIAN. EYE: FLUSH WITH PLENTY  
OF WATE R FOR 15 MINUTES. GET IMMEDIATE MEDICALATTENTION. SKIN:  
WASH WITH SOAP AND WATER. INGESTION: DO NOT INDUCE VOMIT  
ING. GET  
IMMEDIATE MEDICAL ATTENTION.

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

Extinguishing Media:THIS MATERIAL IS NOT COMBUSTIBLE IN THE SOLID FORM.  
USE ANY MEDIA APPROPRIATE FOR THE SURROUNDING FIRE CONDITIONS.  
Fire Fighting Procedures:WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A  
FULL FACED SELF CONTAINED BREATHING APPARATUS. EVACUATE AREA. COOL  
FIRE EXPOSED CONTAINERS WITH WATER SPRAY.  
Unusual Fire/Explosion Hazard:NOT A FIRE OR EXPLOSION HAZARD  
AS SOLID.  
FINELY DIVIDED DUST MAY IGNITE AND BURN RAPIDLY WHEN MIXED WITH AIR  
IN THE PROPER SITUATION. FIRE MAY EMIT TOXIC FUMES.

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

Spill Release Procedures:CONTAIN SPILLAGE AND PICK UP OR VACUUM. WASH  
THOROUGHLY AFTER HANDLING.  
Neutralizing Agent:NONE APPLICABLE FOR THIS MATERIAL

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

Handling and Storage Precautions:STORE IN COOL, DRY LOCATION AWAY F  
ROM  
STRONG ACIDS AND BASES. KEEP CONTAINER CLOSED. WASH THOROUGHLY  
AFTER HANDLING.  
Other Precautions:MAINTAIN ADEQUATE AIRFLOW IF FUMES ARE PRESENT.

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

Respiratory Protection:IF VENTILATION DOES NOT MAINTAIN INHALATION  
EXPOSURES BELOW PEL (TLV), USE NIOSH/MSHA APPROVED RESPIRATOR AS  
PER CURRENT 29 CFR 1910.134, INSTRUCTIONS/WARNINGS AND  
NIOSH-RESPIRATOR SELECTION.  
Ventilation:MECHANICAL (GENERAL) VENTILATION I

S REQUIRED. LOCAL EXHAUST

MAY BE REQUIRED IF WORK AREA IS NOT VENTED.

Protective Gloves:IMPERVIOUS GLOVES

Eye Protection:GLASSES W/ SIDE SHIELDS OR SAFETY GOGGLE

Other Protective Equipment:NON-FLAMMABLE PROTECTIVE CLOTHING.

Work Hygienic Practices:DO NOT BREATHE FUMES FROM BRAZING. DO NOT  
BREATHE DUST. AVOID CONTACT WITH EYES, SKIN OR CLOTHING.

Supplemental Safety and Health

USE ONLY WITH ADEQUATE VENTILATION. DO NOT EAT, DRINK OR SMOKE IN THE  
WORK AREA. WASH THOROUGHLY WITH SOAP AND

WATER AFTER USE. USE OF

BRAZING FLUX MAY POSE ADDITIONAL HAZARDS. REFER TO FLUX MSDS FOR  
ADDITIONAL PRECAUTIONS.

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

HCC:N1

Melt/Freeze Pt:M.P/F.P Text:1190F,643C

Spec Gravity:7.75

Solubility in Water:INSOLUBLE

Appearance and Odor:METALLIC WIRE, ROD OR STRIP. NO ODOR.

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

Stability Indicator/Materials to Avoid:YES

STRONG OXIDIZERS, STRONG ACIDS AND BASES

, ACETYLENE, AMMONIA, HYDROGEN

PEROXIDE, MAGNESIUM METAL, HALOGENS, ETC.

Stability Condition to Avoid:OTHER THAN NORMAL TEMPERATURES AND  
PRESSURES.

Hazardous Decomposition Products:EMITS TOXIC OXIDES OF SILVER, COPPER,  
AND PHOSPHORUS WHEN HEATED ABOVE THE MELTING POINT OF 1190 F.

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

Waste Disposal Methods:THE PRODUCT, IF DISPOSED OF BY ITSELF, IS A  
HAZARDOUS WASTE UNDER THE EPA HAZARDOUS WASTE REGS. BECAUSE OF

EXTRACTABLE SILVER. WASTE MIXTURES CONTAINING THIS PRODUCT SHOULD  
BE TESTED BY TCLP METHOD TO DETERMINE WASTE CLASSIFICATION.

Disclaimer (provided with this information by the compiling agencies):

This information is formulated for use by elements of the Department  
of Defense. The United States of America in no manner whatsoever,  
expressly or implied, warrants this information to be accurate and  
disclaims all liability for its use. Any person utilizing this  
document should s

seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.