

HARRIS WELCO -- ER80S-B2 -- 3439-01-347-4485

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

Product ID:ER80S-B2

MSDS Date:07/01/1993

FSC:3439

NIIN:01-347-4485

MSDS Number: BVYLV

=== Responsible Party ===

Company Name:HARRIS WELCO

Address:1051 YORK RD

City:KINGS MOUNTAIN

State:NC

ZIP:28086

Country:US

Info Phone Num:800-424-9300(CHEMTREC)

Emergency Phone Num:800-424-9300(CHEMTREC)

CAGE:HO911

=== Contractor Iden

tification ===

Company Name:HARRIS WELCO

Address:1051 YORK RD

Box:City:KINGS MOUNTAIN

State:NC

ZIP:28086

Country:US

Phone:704-739-6421

CAGE:HO911

Company Name:THERMACOTE-WELCO CO SUB OF FOSTER WHEELER CORP

Address:YORK RD

Box:828

City:KINGS MOUNTAIN

State:NC

ZIP:28086

Country:US

CAGE:24559

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

Ingred Name:IRON

CAS:7439-89-6

RTECS #:NO4565500

Fraction by Wt: 90-99%

Ingred Name:MANGANESE (SARA III)

CAS:7439-96-5

RTECS #:OO9275000

Fraction by Wt: 0.5-2.0%  
OSHA PEL:5 MG/M3  
ACGIH TLV:5 MG/M3, DUST

Ingred Name:SILICON  
CAS:7440-21-3  
RTECS #:VW0400000  
Fraction by Wt: 0.2-1.0%  
OSHA PEL:10 MG/M3 TDUST  
ACGIH TLV:10 MG/M3 TDUST

Ingred Name:CHROMIUM (SARA III)  
CAS:7440-47-3  
RTECS #:GB4200000  
Fraction by Wt: 0-6.0%  
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: 0-1.6%  
OSHA PEL:10 PPM  
ACGIH TLV:10 PPM

Ingred Name:VANADIUM (SARA III)  
CAS:7440-62-2  
RTECS #:YW1355000  
Fraction by Wt: 0-.25%

Ingred Name:COBALT (SARA III)  
CAS:7440-48-4  
RTECS #:GF8750000  
Fraction by Wt: 0.-1.5%  
OSHA PEL:0.05 MG/M3  
ACGIH TLV:0.05 MG/M3;DUST

Ingred Name:TUNGSTEN  
CAS:7440-33-7  
RTECS #:YO7175000  
Fraction by Wt: 7-10%  
OSHA PEL:5 MG/M3  
ACGIH TLV:5 MG/M3

Ingred Name:GRAPHITE (NATURAL)  
CAS:7782-42-5  
RTECS #:MD9659600  
Fraction by Wt: 0.5%  
OSHA PEL:15 MPPCF  
ACGIH TLV:2 MG/M3 RDUST

Ingred Name:SUPP DATA: THE 5 MG/M3 GENERAL FUME LEVEL. GASEOUS RXN  
P

RODS MAY INCL CARBON MONOXIDE & CARBON DIOXIDE. OZONE(SUPP DATA)

Ingred Name:ING 10: NITROGEN OXIDES MAY BE FORMED BY RADIATION FROM THE ARC, IN ADDITION TO SHIELDING GASES LIKE ARGON & (ING 12)

Ingred Name:ING 11: HELIUM WHENEVER THEY ARE EMPLOYED. ONE RECOMM WAY TO DETERMINE COMPOSITION & QTY OF FUMES & GASES TO (ING 13)

Ingred Name:ING 12: WORKERS ARE EXPOS IS TO TAKE AN AIR SAMPLE FROM INSIDE THE WORKERS BRTHG ZONE. SEE AWS F1.1 & AWS F1.2,(ING 14)

Ingred Name:ING 13: 2985,  
AVAIL FROM AMERICAN WELDING SOCIETY. SEE AWS  
PUBL "FUMES & GASES IN THE WELDING ENVIRONMENT" & (ING 15)

Ingred Name:ING 14:"GASES IN THE WELDING ENVIRONMENT".

Ingred Name:VENT: GENERAL AREA. TRAIN WELDER TO KEEP HIS HEAD OUT OF THE FUMES.

Ingred Name:EYE PROT: WITH FILTER LENS. PROVIDE PROTECTIVE SCREENS & FLASH GOGGLES, IF NECESSARY TO SHIELD OTHERS.

Ingred Name:OTHER PROT EQUIP: LIVE ELECTRICAL PARTS & INSULATE HIMSELF FROM WORK & GROUND.

Ingred Name:EXPLAN OF CARCIN: CAR  
CINOGENIC. HUMAN/ANIMAL:LUNG CANCER,  
SKIN. COBALT: IARC MONOGRAPHS ON THE EVALUATION(ING 20)

Ingred Name:ING 19: OF CARCINOGENIC RISK OF CHEMICALS TO MAN, VOL 52,  
PG 363, 1991: GROUP 2B. ANIMAL: PULM FIBROSIS(BLOOD EFTS).

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

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.

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

Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:NO

Health Hazards Acute and Chronic:FU

MES & GASES CAN BE DANGEROUS TO YOUR

HEALTH. SHORT TERM OVEREXPOSURE MAY RESULT IN DIZZINESS, NAUSEA, OR DRYNESS OR IRRITATION OF NOSE, THROAT, & EYES. ARC RAYS CAN INJURE EYES & BURN SKIN. ELECTRIC SHOCK CAN KILL.HEAT RAYS (INFRARED RADIATION FLAME OR HOT METAL) CAN INJURE EYES.

Explanation of Carcinogenicity:CHROMIUM: IARC MONOGRAPHS, VOL 49, PG 49, 1990: GROUP 1. NTP 7TH ANNUAL REPORT ON CARCINOGENS, 1994: KNOWN TO BE(ING 19)

Effects of Overexposure:SEE HEALTH HAZARDS.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:EYES: IMMED FLUSH W/POTABLE WATER FOR A MINIMUM OF 15 MINS.  
SEEK ASSISTANCE FROM MD. SKIN: FLUSH WITH COPIOUS AMOUNTS OF WATER.  
CALL MD. INGEST: GET MD IMMEDIATELY. INHAL: REMOVE TO FRESH AIR:  
SUPPORT BREATHING(GIVE O\*2/ARTF RESP).

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

Extinguishing Media:USE MEDIA SUIT  
ABLE FOR SURROUNDING FIRE.  
Fire Fighting Procedures:NON FLAMMABLE. WELDING ARC & SPARKS CAN IGNITE  
COMBUSTIBLES. WEAR NIOSH/MSHA APPROVED SCBA & FULL PROTECTIVE  
EQUIPMENT.  
Unusual Fire/Explosion Hazard:NO KNOWN HAZARD IF NORMAL SAFETY  
PRECAUTIONS.

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

Spill Release Procedures:NOT APPLICABLE.  
Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling  
and Storage Precautions:NOT APPLICABLE.  
Other Precautions:NOT APPLICABLE.

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

Respiratory Protection:USE NIOSH/MSHA APPROVED RESPIRABLE FUME  
RESPIRATOR OR AIR SUPPLIED RESPIRATOR WHEN WELDING, BRAZING, OR  
SOLDERING IN CONFINED SPACE OR WHERE LOCAL EXHAUST OF VENTILATION  
DOES NOT KEEP EXPOSURE BELOW T LV.  
Ventilation:USE ENOUGH VENT, LOCAL EXHAUST AT THE ARC(OR FLAME) OR  
BOTH, TO KEEP FUMES & GASES FROM WORKERS BRT  
HG ZONE & (ING 16)  
Protective Gloves:WELDER'S GLOVES RECOMMENDED.  
Eye Protection:WEAR HELMET/USE FACE SHIELD(ING 17)  
Other Protective Equipment:WEAR HAND & HEAD PROT WHICH HELP TO PVNT  
INJRY FROM RADIA,SPARKS & ELEC SHOCK. TRAIN WELDER NOT TO TOUCH  
(ING 18)  
Work Hygienic Practices:NOT APPLICABLE.  
Supplemental Safety and Health  
HAZ DECOMP:LISTED. REASONABLY EXPECTED FUME CONSTITUENTS OF THIS PROD  
WOULD INCL - OXIDES OF IRON. SECONDARY COMPLEX OXIDES OF MANGANESE,  
SILICON, CHROMIUM

, MOLYBDENUM & VANADIUM. THE PRESENT OSHA PERMISSIBLE EXPOS LIMITS FOR HEXAVALENT CHROMIUM IS 0.05 MG/M3 WHICH WILL RESULT IN SIGNIFICANT REDUCTIONS FROM (ING 10)

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

Appearance and Odor:NONE SPECIFIED BY MANUFACTURER.

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

Stability Indicator/Materials to Avoid:YES  
NOT APPLICABLE.

Stability Condition to Avoid:NONE.

Hazardous Decomposition Products:WHEN FILLER METAL IS CONSUMED, FUME &

GAS DECOMP PRODS GENERATED ARE DIFFERENT IN PERCENT & FORM FROM  
INGS (SUPP DATA)

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

Waste Disposal Methods:PREVENT WASTE FROM CONTAMINATING SURROUNDING ENVIRONMENT. DISCARD ANY PRODUCT RESIDUE, DISPOSABLE CONTAINER OR LINER IN AN ENVIRONMENTALLY ACCEPTABLE MANNER, IN FULL COMPLIANCE WITH FEDERAL, STATE & LOCAL REGULATIONS.

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