

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: CARCINOGENIC. 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: IMMEDIATELY FLUSH WITH 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<sub>2</sub>/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 OR 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 EXPOSURE 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 FULLY  
R METAL IS CONSUMED, FUME &

GAS DECOMP PRODUCTS GENERATED ARE DIFFERENT IN PERCENT & FORM FROM  
INGREDIENTS (SUPPLEMENTARY 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.

=====

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