INWELD MFG CORP -- 308L -- 3439-00-511-9704 ============ Product Identification ========================= Product ID:308L MSDS Date:12/01/1989 FSC:3439 NIIN:00-511-9704 MSDS Number: BVZFZ === Responsible Party === Company Name: INWELD MFG CORP Address:1471 JERSEY AVE Box:6019 City:NEW BRUNSWICK State:NJ ZIP:08902 Country:US Info Phone Num:201-545-3800 Emergency Phone Num:201-545-3800 CAGE:66376 === Contractor Identification === Company Name: INWELD MFG CORP Address:3962 PORTLAND ST Box:40 City:COPLAY State:PA ZIP:18037-0040 Country:US Phone:610-261-1900 CAGE:66376 ======= Composition/Information on Ingredients ======== Ingred Name: CARBON BLACK CAS:1333-86-4 RTECS #:FF5800000 Fraction by Wt: .03-.08% Other REC Limits: NONE RECOMMENDED OSHA PEL:3.5 MG/M3 ACGIH TLV:3.5 MG/M3; 9394 Ingred Name: CHROMIUM (SARA III) (OXIDATION STATE IS +6) CAS:7440-47-3 RTECS #:GB4200000 Fraction by Wt: 18-22% Other REC Limits: NONE RECOMMENDED OSHA PEL:1 MG/M3

ACGIH TLV:0.5 MG/M3; 9394

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PA Rpt Qty:1 LB DOT Rpt Qty:1 LB

Ingred Name:NICKEL (SARA III)

CAS:7440-02-0

RTECS #:QR5950000 Fraction by Wt: 9-12%

Other REC Limits: NONE RECOMMENDED

OSHA PEL:1 MG/M3

ACGIH TLV:1 MG/M3; 9394

Ingred Name: MOLYBDENUM (INSOLUBLE COMPOUNDS)

CAS:7439-98-7

RTECS #:QA4680000 Fraction by Wt: .73-3%

Other REC Limits: NONE RECOMMENDED

OSHA PEL:15 MG/M3 TDUST ACGIH TLV:10 MG/M3; 9394

Ingred Name: MANGANESE (SARA III)

CAS:7439-96-5

RTECS #:OO9275000 Fraction by Wt: 1-2.5%

Other REC Limits: NONE RECOMMENDE

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OSHA PEL:C 5 MG/M3 DUST ACGIH TLV:5 MG/M3 DUST 9394

Ingred Name: SILICON

CAS:7440-21-3

RTECS #:VW0400000 Fraction by Wt: .3-1%

Other REC Limits: NONE RECOMMENDED

OSHA PEL:15 MG/M3 TDUST

ACGIH TLV:10 MG/M3 TDUST; 9394

Ingred Name: COPPER (SARA III)

CAS:7440-50-8

RTECS #:GL5325000 Fraction by Wt: .75%

Other REC Limits:NONE RECOMMENDED OSHA PEL:0.1MG/M3 FUME/1 DUST ACGIH TLV:0.2 MG/M3 FUME; 9394

EPA Rpt Qty:5000 LBS DOT Rpt Qty:5000 LBS

Ingred Name:IRON CAS:6596-57-0

Fraction by Wt: BALANCE

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

LD50 LC50 Mixture:TLV FOR CHROMIUM VI IS 0.05MG/M3

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

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

Health Hazards Acute and Chronic:SHORT TERM EXPOSURE TO WELDING FUMES, GASES OR DUST MAY RESULT IN DISCOMFORT SUCH AS DIZZINESS, NAUSEA, FEVER, DRYNESS AND/OR IRRITATION OF NOSE, THROAT AND EYES. SKIN SENSITIVITY MAY ALSO BE NO

TED. A CUTE EXPOSURE FROM SOME TOXIC

GASES MAYCAUSE PULMONARY EDEMA, ASPHYXIATION AND EXCESSIVE EXPOSURE CAN BE FATAL.

- Explanation of Carcinogenicity:NICKEL AND CHROMIUM VI ARE CONSIDERED POSSIBLE CARCINOGENS UNDER OSHA. RESPIRATORY CANCER FROM WELDING IS UNCONFIRMED.
- Effects of Overexposure:EXPOSURE TO WELDING FUMES MAY RESULT IN DISCOMFORT SUCH AS DIZZINESS, NAUSEA, FEVER, DRYNESS AND/OR IRRITATION OF NOSE, THROAT AND EYES. SKIN SENSITIVITY MAY ALSO BE NOTED. WATERY
- EYES, HEADACHE, BREA THING DIFFICULTY, FREQUENT COUGHING AND/OR CHEST PAINS MAY OCCURE FROM ACUTE EXPOSURE. TOXIC GASES CAN BE FATAL.
- Medical Cond Aggravated by Exposure:SOME WORKERS MAY BE AFFECTED BY A PRE-EXISTING CONDITION OR OTHER OCCUPATIONAL ILLNESS BECAUSE OF THE WIDE VARIATION IN INDIVIDUAL SUSCEPTIBILITIES.

FIRST AID: IN CASE OF ELECTRICAL SHOCK, TURN OFF POWER PRIOR TO REMOVAL FROM EXPOSURE AREA

AND ADMINISTRATION OF FIRST AID. REMOVE FROM EXPOSURE AREA AND CALL FOR MEDICAL AID. ADMINISTER OXYGEN IF BREATHING IS D IFFICULT. IF NOT BREATHING, BEGIN ARTIFICIAL RESPIRATION. IF NO DETECTABLE PULSE, BEGIN EXTERNAL HEART MASSAGE. EMPLOY FIRST AID TECHNIQUES RECOMMENDED BY THE AMERICAN RED CROSS.

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

Flash Point:NONE

Extinguishing Media: USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL.

Fire Fighting Pro

- cedures:WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY.
- Unusual Fire/Explosion Hazard: COMBUSTION OR HEAT OF FIRE MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS AND VAPORS.

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

- Spill Release Procedures:CLEAN UP ANY GRINDING DUST OR WASTE RESIDUES AND PLACE IN SUITABLE DOT APPROVED CONTAINERS AND DISPOSE OF IN FULL COMPLIANC
- E WITH FEDERAL, STATE AND LOCAL REGULATIONS. AVOID INHALATION AND SKIN EXPOSU RE.

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

- Handling and Storage Precautions:WEAR GLOVES AND FLAME RETARDANT CLOTHING WHEN CUTTING, GRINDING OR WELDING. DO NOT EXPOSE SKIN TO RADIATION WHEN HOT CUTTING OR WELDING.
- Other Precautions:PROVIDE PROTECTIVE SCREENS TO SHIELD OTHERS. WHEN ELECTRODES AND FLUXES ARE CONSUMED, THE FUME AND GAS DECOMPOSITION PRODUCTS GENERATED ARE
- DIFFERENT IN FORM FROM THE INGREDIENTS
 LISTED. NEW COMPOUNDS NOT IN THE ELECTRODES MAY FORM.

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

Respiratory Protection: USE WELD FUME RESPIRATOR OR AIR SUPPLIED RESPIRATOR WHEN CUTTING, GRINDING OR WELDING IN A CONFINED SPACE OR WHERE LOCAL EXHAUST OR GENERAL VENTILATION DOES NOT KEEP EXPOSURE BELOW RECOMMENDED LIMITS. USE ONLY NIOSH APPROVED RESPIRATORS.

Ventilation: USE ENOUGH VENTILATION WHEN CUTTING, GRINDING OR WELDING TO

KEEP THE DUST, FUMES & GASES FROM THE WORKERS BREATHING ZONE Protective Gloves:WELDERS LEATHER GLOVES

Eye Protection: OSHA APPROVED GOGGLES/FACE SHIELD W/LENS

Other Protective Equipment:FLAME RETARDANT CLOTHING WHEN CUTTING, GRINDING OR WELDING. DO NOT EXPOSE SKIN TO RADIATION WHEN HOT CUTTING OR WELDING.

Work Hygienic Practices: WASH THOROUGHLY BEFORE EATING OR SMOKING. LAUNDER CONTAMINATIED CLOTHING BEFORE REUSE.

Supplemental Safety and Health

WELDING AND HOT CUTTIN

G FUMES & GASES CANNOT BE CLASSIFIED SIMPLY.

THEIR COMPOSITION AND QUANTITY ARE DEPENDENT ON THE METAL BEING WELDED, THE PROCEDURES, PROCESSES AND THE TYPE OF WIRE OR ELECTRODES USED. OTHER INFLUENCING FACTORS ARE THEPRESENCE OF CONTAMINENTS. CHLORINATED SOLVENTS MAY DECOMPOSE TO TOXIC GASES.

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

HCC:N1

Solubility in Water: INSOLBLE

Appearance and Odor:WELDING ROD;9"X0.094"OD

Percent Volatiles by Volume:NIL

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

Stability Indicator/Materials to Avoid:YES

STRONG OXIDIZING AGENTS

Stability Condition to Avoid:HIGH HEAT, OPEN FLAMES AND OTHER SOURCES OF IGNITION

Hazardous Decomposition Products:WELDING AND CUTTING OPERATION MAY INCLUDE OXIDES OF THE METALS, CHROMATES, FLUORIDES, COMPLEX METALLICS, AND OZONE.

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

Waste Disposal Methods:DISPOSE OF IN ACCORDANCE WITH FEDE RAL,STATE AND LOCAL REGULATIONS.

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