Product ID:MARCOLOY,1100 KIT,PART A MSDS Date:06/01/1987 FSC:3439 NIIN:01-030-2412 Kit Part:Y MSDS Number: BKLLH === Responsible Party === Company Name: MARCO CO WELD PRODUCTS DIV Address: 5722 UNION PACIFIC AVENUE **City:LOS ANGELES** State:CA ZIP:90022-5135 Country:US Info Phone Num:213-723 -0711 Emergency Phone Num:213-723-0711 CAGE:MO629 === Contractor Identification === Company Name:MARCO CO Address:5722 UNION PACIFIC AVENUE Box:City:LOS ANGELES State:CA ZIP:90022-5135 Country:US Phone:213-723-0711 CAGE:55278 Company Name: MARCO CO WELD PRODUCTS DIV Address:5722 UNION PACIFIC AVENUE Box:City:LOS ANGELES State:CA ZIP:90022-5135 Country:US Phone:213-723-0711 CAGE:MO629 Company Name: R & D METALS & CHEMICALS, INC Address:201C PERIMETER PARK Box:22533 City:KNOXVILLE State:TN ZIP:37922

-2233 Country:US Phone:423-531-6065 / FAX: 423-531-2044 CAGE:56406

Ingred Name:SILVER (SARA III) CAS:7440-22-4 RTECS #:VW3500000 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:COPPER (SARA III) CAS:7440-50-8 RTECS #:GL5325000 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 Qt y:5000 LBS

Ingred Name:ZINC (SARA III) CAS:7440-66-6 RTECS #:ZG8600000 Other REC Limits:5 MG/M3 AS OXIDE FUM OSHA PEL:10 MG ZNO/M3 ACGIH TLV:10 MG ZNO/M3; 9192 EPA Rpt Qty:1000 LBS DOT Rpt Qty:1000 LBS

Ingred Name:NICKEL (SARA III) CAS:7440-02-0 RTECS #:QR5950000 Other REC Limits:NONE SPECIFIED OSHA PEL:1 MG/M3 ACGIH TLV:1 MG/M3; 9192

Ingred Name:CADMIUM (SARA III) CAS:7440-43-9 RTECS #:EU9800000 Other REC Limits:NONE SPECIFIED OSHA PEL:SEE 1910.1027 ACGIH TLV:0.01 MG/M3 DUST;9394 EPA Rpt Qty:10 LBS DOT Rpt Qty:10 LBS

Ingred Name:TIN CAS:7440-31-5 RTECS #:XP7320000 Other REC Limits:NONE SPECIFIED OSHA PEL:2 MG/M3 ACGIH TLV:2 MG/M3; 9192

Ingred Name:POTASSIUM FLUORIDE CAS:7789-23-3 RTECS #:TT0700000 Other REC Limits:2.5 MG/M3 FLUORIDE

Ingred Name:SODIUM TETRABORATE, ANHYDROUS CAS:1330-43-4 RTECS #:VZ2240000 Other REC Limits:NONE SPECIFIED OSHA PEL:10 MG/M3 ACGIH TLV:1 MG/M3; 9192

Ingred Name:POTASSIUM BORATE CAS:1332-77-0 Other REC Limits:NONE SPECIFIED

Ingred Name:HYDROCARBO N, INORGANIC SALT Other REC Limits:NONE SPECIFIED

Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES 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 NOTED. L ONG TERM EXPOSURE TO

FUMES/GASES/DUST MAY CAUSE PULMONARY IRRITATION OR PNEUMOCONIOSIS.
Explanation of Carcinogenicity:CONTAINS C [7440-43-9] WHICH IS
LISTED BY NTP AND IARC AND REGULATED BY OSHA AS A CARCINOGEN.
Effects of Overexposure:EXPOSURE TO WELDING/BRAZING 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, HEADAC HE, BREATHING DIFFICULTY, FREQUENT
COUGHING AND/OR CHEST P

AINS MAY OCCUR FROM ACUTE EXPOSURE. TOXIC GASES CAN BE FATAL. Medical Cond Aggravated by Exposure: INDIVIDUALS WITH IMPAIRED PULMONARY FUNCTION OR ILLNESS MAY HAVE SYMPTOMS EXACERBATED BY IRRITANTS CONTAINED IN WELDING FUMES. 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. ADMINISTE **R 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. Extinguishing Media: USE DRY CHEMICAL. Fire Fighting Procedures: WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS. EVACUATE AREA. COOL FIRE EXPOSED CONTAINERS WIT H WATER SPRAY. Unusual Fire/Explosion Hazard: MAY PRODUCE HAZARDOUS METAL FUMES, CARBON MONOXIDE & DIOXIDE, HYDROGEN FLUORIDE OR/& FLUORINE. Spill Release Procedures: CLEAN UP ANY GRINDING DUST OR WASTE RESIDUES AND PLACE IN SUITABLE DOT APPROVED CONTAINERS AND DISPOSE OF IN FULL COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. AVOID INHALATION AND SKIN EXPOSU RE. Neutralizing Agent:NOT RELEVANT =========== 

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. 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:F LAMEPROOF GAUNTLER GLOVES Eve 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 KEY1:T6. THIS IS A 2-PART KIT. WELDING & HOT CUTTING FUMES & GASES CANNOT BE CLASSIFIED SIMPLY. THEIR COMPOSITIO N & QUANTITY ARE DEPENDENT ON METAL BEING WELDED, THE PROCEDURES, PROCESSES & TYPE OF WI RE/ELECTRODES USED. OTHER INFLUENCING FACTORS ARE PRESENCE OF CONTAMINANTS. CHLORINATED SOLVENTS MAY FORM TO TOXIC GASES HCC:C1 NRC/State Lic Num:NOT RELEVANT Melt/Freeze Pt:M.P/F.P Text:1125F,607C Spec Gravity:9.5 Solubility in Water: INSOLUBLE Appearance and Odor:WIRE

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

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Stability Indicator/Materials to Avoid:YES STRONG ACIDS AND BASES Stability Condition to Avoid:NONE Hazardous Decomposition Products:WELDING/BRAZING OPERATIONS MAY INCLUDE ELEMENTAL METALS, OXIDES OF THE METALS, FUMES/GASES & ELECTROMAGNETIC RADIATION.

Waste Disposal Methods: DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

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## ing agencies):

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