Product ID:#44 RESIN CORE SOLDER MSDS Date:12/12/1988 FSC:3439 NIIN:01-039-0064 MSDS Number: BQCVP === Responsible Party === Company Name: KESTER SOLDER DIV, LITTON SYSTEMS INC Address:515 E TOUHY **City:DES PLAINES** State:IL ZIP:60018-2675 Country:US Info Phone Num:708-297-1600 Emergen cy Phone Num:708-297-1600 CAGE:75297 === Contractor Identification === Company Name: KESTER SOLDER DIVISION OF LITTON SYSTEMS, INC. Address:515 E. TOUHY AVENUE Box:City:DES PLAINES State:IL ZIP:60018 Country:US Phone:847-297-1600 CAGE:75297 Ingred Name:ROSIN ACID CAS:8050-09-7 Fraction by Wt: 3% Ingred Name:TIN CAS:7440-31-5 RTECS #:XP7320000 Fraction by Wt: 61.5% Other REC Limits:NONE RECOMMENDED OSHA PEL:2 MG/M3 ACGIH TLV:2

MG/M3; 9293

Ingred Name:LEAD (SARA III) CAS:7439-92-1 RTECS #:OF7525000 Fraction by Wt: 37.53% Other REC Limits:NONE RECOMMENDED OSHA PEL:0.05 MG/M3;1910.1025 ACGIH TLV:0.15 MG/M3;DUST 9293 EPA Rpt Qty:1 LB DOT Rpt Qty:1 LB

Ingred Name:ANTIMONY (SARA III) CAS:7440-36-0 RTECS #:CC4025000 Fraction by Wt: 0.5% Other REC Limits:NONE RECOMMENDED OSHA PEL:0.5 MG/M3 ACGIH TLV:0.5 MG SB/M3; 9293 EPA Rpt Qty:5000 LBS DOT Rpt Qty:5000 LBS

Ingred Name:BISMUTH CAS:7440-69-9 RTECS #:EB2600000 Fraction by Wt: 0.25% Other REC Limits:NONE RECOMMENDED

Ingred Name:COPPER (SARA III) CAS:7440-50-8 RTECS #:GL5325000 Fraction by Wt: 0.08% Other REC Limits:NONE RECOMMENDED OSHA PEL:0.1MG/M3 FUME/1 DUST ACGIH TLV:0.2MG/M3 FUME; 9293 EPA Rpt Qty:5000 LBS DOT Rpt Qty:5000 LBS

Ingred Name:ARSENIC (SARA III) CAS:7440-38-2 RTECS #:CG0525000 Fraction by Wt: 0.03% Other REC Limits:NONE RECOMMENDED OSHA PEL:0.5 MG/M3 (AS) ACGIH TLV:0.01,A1 MG/M3; 9394 EPA Rpt Qty:1 LB DOT Rpt Qty:1 LB

Ingred Name:IRON CAS:

6596-57-0 Fraction by Wt: 0.02% Other REC Limits:NONE RECOMMENDED

Ingred Name:ALUMINUM (SARA III) CAS:7429-90-5 RTECS #:BD0330000 Fraction by Wt: 0.005% Other REC Limits:NONE RECOMMENDED OSHA PEL:15MG/M3 DUST/5 FUME ACGIH TLV:10MG/M3 DUST; 9293

Ingred Name:ZINC (SARA III) CAS:7440-66-6 RTECS #:ZG8600000 Fraction by Wt: 0.005% Other REC Limits:NONE RECOMMENDED OSHA PEL:10 MG ZNO/M3 ACGIH TLV:10 MG ZNO/M3; 9293 EPA Rpt Qty:1000 LBS DOT Rpt Qty:1000 LBS

Ingred Name:OTHER COMPONENTS Fraction by Wt: 0.08% Other REC Limits:NONE RECOMMENDED

Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Hazards Acute and Chronic:SMOKE DURING SOLDIERING CAN IRRITATE EYES AND RESPIRATORY TRACT. ROSIN IS AN ALLERGEN - MAY CAUSE RASH, HEADACHE, OR THROAT IRRITATION IN A SENSITIVE PERSON. FLUX FUMES MAY CAUSE PULMONARY IRRITATION AND LUNG DAMAGE. LEAD FUME W ILL NOT OCCUR IN SUFFICIENT QUANTITY TO BE DANGEROUS AT NORMAL SOLDERING TEMPERATURES.

Explanation of Carcinogenicity: THE PRODUCT CONTAINS NO INGREDIENT THAT IS LISTED BY IARC, NTP OR OSHA AS A CARCINOGEN.

Effects of Overexposure:INHALATION: IRRITATION OF THE RESPIRATORY TRACT, HEADACHE, THROAT IRRITATION, PULMONARY IRRITATION, & LUNG DAMAGE. SKIN: RASH. EYES:IRRITATION.

Medical Cond Aggravated by Exposure:SUPPLIER DID NOT ADDRESS THIS FIELD.

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Flash Point:420F,216C Extinguishing Media: CARBON DIOXIDE, ALCOHOL FOAM, DRY CHEMICAL Fire Fighting Procedures: SUPPLIER SAID "NONE". HMIS: FIRE FIGHTERS SHOULD USE NIOSH APPROVED SCBA & FULL PROTECTIVE EQUIPMENT WHEN FIGHTING CHEMICAL FIRE. **Unusual Fire/Explosion Hazard:NONE** Spill Release Procedures: MFR SAID "N/A". HMIS: ALLOW METAL TO COOL AND SWEEP UP. Neutralizing Agent:SU PPLIER DID NOT ADDRESS THIS FIELD. Handling and Storage Precautions: AVOID EYE CONTACT WITH HOT FLUX. AVOID BREATHING SMOKE DURING SOLDERING. WASH HANDS BEFORE EATING OR SMOKING AFTER HANDLING SOLDER WIRE. Other Precautions: DON'T PLACE FLUX CORED SOLDER WIRE INTO A HOT SOLDER POT. THE FLUX MAY IGNITE. Respiratory Protection: USUALLY NOT REQUIRED Ve ntilation:LOCAL EXHAUST: REMOVE SMOKE. GENERAL MECHANICAL VENTILATION RECOMMENDED. Protective Gloves:NONE REQUIRED Eye Protection:SAFETY GLASSES Other Protective Equipment:NONE Work Hygienic Practices: MFR: ? HMIS: USE GOOD INDUSTRIAL HYGIENE PRACTICE. AVOID UNNECESSARY CONTACT. WASH THOROUGHLY BEFORE EATING OR DRINKING. Supplemental Safety and Health MSDS RECEIVED FROM NAVY (FOCAL POINT N). CAGE CODE AND NSN IDENTIFIED BY THEM. THE FORMULA FOR THE SOLDER WAS TAKEN FROM THE CTDF SUPPLIER LISTED ONLY ROSIN UNDER HAZARDOUS INGREDIENTS AND AT 95%. HCC:N1 NRC/State Lic Num:NONE Solubility in Water: INSOLUBLE Appearance and Odor:SOLID AMBER CORE INSIDE SOLDER WIRE \* SOFTENING POINT (DROP METHOD 149F/65C Stability Indicator/Materials to Avoid:YES STRONG OXIDIZERS Stability Condition to Avoid:SUPPLIER LEFT THIS FIELD BLANK. Haza

rdous Decomposition Products:SMALL AMOUNTS OF TURPENTINE. MAY EMIT HYDROGEN CHLORIDE FUMES (