

KESTER SOLDER DIV,LITTON SYSTEMS INC -- 1544-MIL TYPE RA FLUX -- 3439-00-400-1972  
===== Product Identification =====

Product ID:1544-MIL TYPE RA FLUX

MSDS Date:05/11/1993

FSC:3439

NIIN:00-400-1972

MSDS Number: BWPDS

=== 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

Emergenc

y 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

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

Ingred Name:ETHYL ALCOHOL (ETHANOL)

CAS:64-17-5

RTECS #:KQ6300000

Fraction by Wt: 25%

Other REC Limits:NONE RECOMMENDED

OSHA PEL:1000 PPM

ACGIH TLV:1000 PPM; 9394

Ingred Name:SEC-BUTYL ALCO

HOL (SARA III)  
CAS:78-92-2  
RTECS #:EO1750000  
Fraction by Wt: 25%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:150 PPM  
ACGIH TLV:100 PPM; 9394

Ingred Name:ROSIN ACID  
CAS:8050-09-7  
Fraction by Wt: 50%  
Other REC Limits:NONE RECOMMENDED

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

LD50 LC50 Mixture:LD50 (ORAL) 4.4 G/KG  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:INHALATION- FU  
MES DURING SOLDERING MAY

IRRITATE MUCOUS MEMBRANES AND RESPIRATORY SYSTEM. SKIN- LOCAL IRRITATION. EYES- IRRITATION FROM CONTACT WITH LIQUID AND SMOKE FROM SOLDERING. INGESTION- BURNING SENSATION IN THE DEGESTIVE TRACT.

Explanation of Carcinogenicity:NONE OF THE COMPOUNDS IN THIS PRODUCT IS LISTED BY IARC, NTP, OR OSHA AS A CARCINOGEN.

Effects of Overexposure:INHALATION- HIGH CONCENTRATIONS CAN CAUSE HEADACHE, DIZZINESS, NARCOSIS AND NAUSEA.

Medical Cond Aggravated by  
Exposure:CHEMICAL HYPERSENSITIVITY, ASTHMA AND OTHER RESPIRATORY CONDITIONS.

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

First Aid:INHALATION: REMOVE TO FRESH AIR. GIVE MOUTH-TO-MOUTH RESUSCITATION IF NOT BREATHING. GET MEDICAL ATTENTION IMMEDIATELY. EYE: IMMEDIATELY FLUSH WITH RUNNING WATER FOR 15 MINUTES WHILE HOLDING EYELID. GET MEDICAL ATTENTION IMMEDIATELY. SKIN:WASH WITH SOAP & WATER. REMOVE CONTAMINATED CLOTHING. INGESTION: INDUCE VOMIT

ING. NOTHING BY MOUTH IF UNCONSCIOUS. GET MEDICAL ATTENTION IMMEDIATELY.

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

Flash Point Method:TOC

Flash Point:65.0F,18.3C

Autoignition Temp:Autoignition Temp Text:720F

Lower Limits:2.5

Upper Limits:15.0

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

Fire Fighting Procedures: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:NOTIFY SAFETY PERSONNEL OF SPILL/LEAK. PROVIDE MAXIMUM EXPLOSION-PROOF VENTILATION. ELIMINATE ALL SOURCES OF IGNITION. WEAR PROTECTIVE EQUIPMENT. CONTAIN LARGE SPILL FOR VACUUM PICK-UP. CONSIDER WATER DILUTION. ABSORB SMALL AMOUNTS WITH INERT MATERIAL.

Neutralizing Agent:NOT APPLICABLE.

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

Handling and Storage Precautions:PROTECT CONTAINERS FROM PHYSICAL DAMAGE. STORAGE AND USE CONDITIONS MUST BE SUITABLE FOR AN OSHA CLASS IB FLAMMABLE LIQUID.

Other Precautions:MAKE FREQUENT CAREFUL LEAKAGE INSPECTIONS. ISOLATE FROM OXIDIZERS, CHEMICALS CAPABLE OF SPONTANEOUS HEATING, MATERIALS REACTING WITH AIR OR MOISTURE TO LIBERATE HEAT, IGNITION SOURCES AND EXPLOSIVES. KEEP OUT OF DIRECT SUN & AWAY FROM HEAT.

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

Respiratory Protection:IF VENTILATION DOES NOT MAINTAIN INHALATION EXPOSURES BELOW PEL(TLV), USE NIOSH/MSHA APPROVED RESPIRATORS. RESPIRATORS SHOULD BE SELECTED BASED ON THE FORM AND CONCENTRATION OF CONTAMINANT IN AIR & IN ACCORDANCE WITH OSHA (29 CFR 1910.134).

Ventilation:USE BOTH GENERAL AND LOCAL NONSPARKING, EXPLOSION-PROOF EXHAUST VENTILATION TO MAINTAIN AIRBORNE LEVELS

BELOW TLV/PEL.

Protective Gloves:WEAR IMPERVIOUS GLOVES

Eye Protection:SAFETY GLASSES/CHEMICAL SAFETY GOGGLES.

Other Protective Equipment:WEAR RUBBER BOOTS, APRONS, AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT SUITABLE TO THE WORK SITUATION.

Work Hygienic Practices:PRACTICE GOOD PERSONAL HYGIENE. KEEP MATERIAL OFF CLOTHES AND EQUIPMENT. DO NOT SMOKE ANYWHERE NEAR WORK AREA.

Supplemental Safety and Health

AVOID REPEATED OR PROLONGED SKIN CONTACT OR INHALATION OF VAPORS. USE

ONLY WITH ADEQUATE VENTILATION AND ELIMINATE ALL SOURCES OF HAZARDOUS OR UNINTENDED IGNITION. EXPOSURE TO ETHYL ALCOHOL ENHANCES TOXICITY HAZARDS OF OTHER MATERIALS SUCHAS CHLORINATED HYDROCARBON SOLVENTS OR DRUGS. WASH THOROUGHLY AFTER USE.

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

HCC:F2

Boiling Pt:B.P. Text:170F,77C

Vapor Pres:40

Vapor Density:1.8

Spec Gravity:0.926

Evaporation Rate & Reference:1.8 (N-BUTYL ACETATE=1)

Solubility in Water:50%

Appe

arance and Odor:DARK, AMBER STICKY LIQUID.

Percent Volatiles by Volume:57

===== 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:WHEN HEATED TO SOLDERING TEMPERATURES, THE SOLVENTS ARE EVAPORATED AND PRODUCE ALIPHATIC ALKEHYDES, ACIDS & TERPENES.

===== Disposal Consideratio

Waste Disposal Methods: MATERIAL SHOULD BE RECLAIMED, RECYCLED OR  
INCINERATED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL  
REGULATIONS. EMPTY CONTAINERS MAY CONTAIN RESIDUE.

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