

LITTON KESTER SOLDER

-- AP-20 CLEANING SOLUTION

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MSDS Safety Information

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FSC: 6850

MSDS Date: 05/19/1997

MSDS Num: CHZXQ

LIIN: 00F056914

Product ID: AP-20 CLEANING SOLUTION

MFN: 01

Responsible Party

Cage: G0157

Name: LITTON KESTER SOLDER

Address: 515 EAST TOUHY AVENUE

City: DES PLAINES IL 60018-2675

Info Phone Number: 708-297-1600

Emergency Phone Number: 708-297-1600

Preparer's Name: D BERNIER

Review Ind: Y

Published: Y

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Preparer Co. when other than Responsible Party Co.

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Cage: G0157

Assigned Ind: Y

Name: LITTON KESTER SOLDER

Address: 515 EAST TOUHY AVENUE

City: DES PLAINES IL 60018-2675

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Contractor Summary

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Cage: 75297

Name: KESTER SOLDER DIVISION OF LITTON SYSTEMS, INC.

Address: 515 E. TOUHY AVENUE

City: DES PLAINES IL 60018

Phone: 847-297-1600

Cage: G0157

Name: LITTON KESTER SOLDER

Address: 515 EAST TOUHY AVENUE

City: DES PLAINES IL 60018-2675

Phone: (708) 297-1600

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Ingredients

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Cas: 127-18-4

RTECS #: KX3850000

Name: PERCHLOROETHYLENE (TETRACHLOROETHYLENE) (SUSPECTED ANIMAL CARC B
& IARC - GROUP 2A; CARC BY NTP) *98-3*

% Wt: 80

Other REC Limits: 50 PPM

OSHA PEL: 50 PPM
ACGIH TLV: 50 PPM
EPA Rpt Qty: 100 LBS
DOT Rpt Qty: 100 LBS

Cas: 628-63-7
RTECS #: AJ1925000
Name: AMYL ACETATE
% Wt: 19
Other REC Limits: 530 PPM
OSHA PEL: 100 PPM
ACGIH TLV: 100 PPM
EPA Rpt Qty: 5000 LBS
DOT Rpt Qty: 5000 LBS

RTECS #: 9999999VO
Name: VOLATILE ORGANIC CONTENT: 1470 G/L
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Health Hazards Data

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Route Of Entry Inds - Inhalation: YES

Skin: YES

Ingestion: YES

Carcinogenicity Inds - NTP: YES

IARC: YES

OSHA: NO

Effects of Exposure: INHALATION: LOCAL IRRITANT TO EYES, NOSE & RESPIR TRACT. SKIN: SLIGHT IRRITANT. EYES: SEVERE IRRITATION. INGESTION: HA MAY CAUSE CNS DEPRESSION & IRRITATION TO UPPER DIGESTIVE TRACT. SEVE EXPOSURE MAY CAUSE CARDIAC FAILURE & MAY DAMAGE LIVER & KIDNEYS. MA AFFECT CENTRAL NERVOUS SYSTEM. DERMATITIS.

Explanation Of Carcinogenicity: SEE INGREDIENTS.

Signs And Symptions Of Overexposure: DIZZINESS, NARCOSIS, IRRITATION, GIDDINESS, HEADACHE, NAUSEA, DEFATTING/DRYING OF SKIN, INFLAMMATION

First Aid: EYES: FLUSH W/PLENTY OF WATER. SKIN: WASH W/SOAP & WATER. REPLACE MOISTURE W/HAND LOTION. INHALATION: REMOVE TO FRESH AIR. PRO OXYGEN IF BREATHING IS DIFFICULT. INGESTION: INDUCE VOMITING. KEEP V HEAD BELOW HIPS TO PREVENT ASPIRATION INTO LUNGS. OBTAIN MEDICAL ATT ALL CASES.

Handling and Disposal

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Spill Release Procedures: CONTAIN TO SMALLEST POSSIBLE AREA. ABSORB W/ DIATOMACEOUS EARTH/OTHER INERT MATERIAL & DISPOSE. AVOID BREATHING VAPORS. REMOVE SOAKED CLOTHING.

Waste Disposal Methods: INCINERATE/DISPOSE OF IN ACCORDANCE W/LOCAL, S & FEDERAL REGULATIONS. UN1897.

Handling And Storage Precautions: KEEP CONTAINER SEALED WHEN NOT IN US STORE AT TEMPS EXCEEDING 90F. OPEN CONTAINERS CAUTIOUSLY TO ALLOW VE ANY INTERNAL PRESSURE.

Other Precautions: DON'T USE A CUTTING TORCH ON CONTAINERS EVEN EMPTY
RESIDUAL MAY EXPLODE. AVOID BREATHING VAPORS. AVOID SKIN & EYE CONTACT
OBSERVE ALL LABEL PRECAUTIONS.

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Fire and Explosion Hazard Information

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Flash Point Text: NONE

Fire Fighting Procedures: USE WATER SPRAY TO COOL FIRE EXPOSED CONTAINERS
TO CONTROL VAPORS. WEAR A SELF CONTAINED BREATHING APPARATUS IF THIS
IS IN THE VICINITY OF A FIRE.

Unusual Fire/Explosion Hazard: SEALED CONTAINERS COULD EXPLODE DURING
RESULTING IN HIGHLY TOXIC FUMES.

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Control Measures

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Respiratory Protection: AS REQUIRED TO MEET TLV REQUIREMENTS. FOR HIGH
CONCENTRATIONS, USE ORGANIC CARTRIDGE RESPIRATOR/SELF CONTAINED BREATHING
APPARATUS.

Ventilation: GENERAL/LOCAL TO MEET EXPOSURE REQUIREMENTS. LOCAL EXHAUST
MINIMIZE DISPERSION OF SMOKE/FUMES INTO THE WORK AREA.

Protective Gloves: NEOPRENE

Eye Protection: CHEMICAL GOGGLES

Other Protective Equipment: IMPERMEABLE APRON

Work Hygienic Practices: REMOVE SOAKED CLOTHING.

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Physical/Chemical Properties

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B.P. Text: 245F

Vapor Pressure: 12

Vapor Density: 6.3

Spec Gravity: 1.48

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

Solubility in Water: INSOLUBLE

Appearance and Odor: COLORLESS LIQUID W/CHARACTERISTIC ODOR

Percent Volatiles by Volume: 100

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Reactivity Data

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Stability Indicator: YES

Stability Condition To Avoid: FIRE/FLAME

Materials To Avoid: STRONG OXIDIZING AGENTS, ALKALINE FUMES/ALKALI METALS

Hazardous Decomposition Products: PHOSGENE GAS & HYDROCHLORIC ACID, CO

Hazardous Polymerization Indicator: NO

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Toxicological Information

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Ecological Information

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MSDS Transport Information

Regulatory Information

Other Information

HAZCOM Label

Product ID: AP-20 CLEANING SOLUTION
 Cage: G0157
 Assigned IND: Y
 Company Name: LITTON KESTER SOLDER
 Street: 515 EAST TOUHY AVENUE
 City: DES PLAINES IL
 Zipcode: 60018-2675
 Health Emergency Phone: 708-297-1600
 Label Required IND: Y
 Date Of Label Review: 10/12/1999
 Status Code: A
 Origination Code: G

Hazard And Precautions: INHALATION: LOCAL IRRITANT TO EYES, NOSE &
 RESPIRATORY TRACT. SKIN: SLIGHT IRRITANT. EYES: SEVERE IRRITATION. I
 HARMFUL. MAY CAUSE CNS DEPRESSION & IRRITATION TO UPPER DIGESTIVE TR
 SEVERE EXPOSURE MAY CAUSE CARDIAC FAILURE & MAY DAMAGE LIVER &
 KIDNEYS. MAY AFFECT CENTRAL NERVOUS SYSTEM. DERMATITIS.

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TECHNICAL SPECIFICATION SHEET

J.W. HARRIS CO., INC.
4501 QUALITY PLACE
MASON, OHIO 45040
TEL. (513) 754-2000
FAX, (513) 754-8778
www.jwharris.com

ISO 9002
Cert. No. 31598

ALSOLDER[®] 500 ALUMINUM SOLDER

WARNING: PROTECT yourself and others. Read and understand this information.

FUMES AND GASES can be hazardous to your health.

HEAT RAYS (INFRARED RADIATION) from flame or hot metal can injure eyes.

- Before use, read and understand the manufacturer's instructions, Material Safety Data Sheet (MSDSs), and your employer's safety practices.
- Keep your head out of fumes.
- Use enough ventilation, exhaust at the flame, or both, to keep fumes and gases from your breathing zone and the general area.
- Wear correct eye, ear, and body protection.
- See American National Standard Z49.1, *Safety in Welding, Cutting, and Allied Processes*, published by the American Welding Society, 550 N.W. LeJeune Road, Miami, Florida 33126; OSHA Safety and Health Standards, available from the U.S. Government Office, Washington, DC 20402

STATEMENT OF LIABILITY — DISCLAIMER

Any suggestion of product applications or results is given without representation or warranty, either expressed or implied.

Without exception or limitation, there are no warranties of merchantability or of fitness for particular purpose or application. The user must fully evaluate every process and application in all aspects, including suitability, compliance with applicable law and non-infringement of the rights of others. J.W. Harris Co., Inc. and its affiliates shall have no liability in respect thereof.

NOMINAL COMPOSITION:

Tin	85%
Zinc	15%

PHYSICAL PROPERTIES:

Solidus	391°F (199°C)
Liquidus	482°F (248°C)
Elongation in 2"	50%
Tensile Strength	Up to 20,000 psi (Cu to Cu)



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ALSOLDER[®] 500 ALUMINUM SOLDER

SOLDERING PROPERTIES:

An intermediate temperature alloy useful for soldering aluminum to itself and other metals (not recommended for magnesium). Frequently used for repair of aluminum evaporators and soldering aluminum to copper tubing. When joining aluminum to dissimilar metals, the possibility of electrolytic corrosion must be considered. ALSOLDER 500 is also suited to repair zinc die cast alloys.

AVAILABLE FORMS:

- Standard wire diameters
- Preformed Rings
- Kits 1-oz of each solder & flux

SPECIFICATION COMPLIANCE:

J.W. Harris Internal

RECOMMENDED FLUX:

- Stay Clean Aluminum Flux
- Stay Clean Flux on other metals

J.W. Harris Co., Inc.	Fax	513-754-8778
4501 Quality Place	Tel.	513-754-2000
Mason, Ohio 45040		800-733-4533