

Material Safety Data Sheet

Section 1 Product and Company Identification

Product Name:

FLUX-RITE 90 LIQUID and PASTE

Revision #: 1.5

Date Prepared: December 2, 1994

Date Revised: June 18, 2007

Manufacturer:

**LA-CO INDUSTRIES, Inc. Markal
Co.**

1201 Pratt Blvd.

Elk Grove Village, IL, USA 60007-5746

Information Telephone: 847-956-7600

Emergency Telephone: Call CHEMTREC

USA 800-424-9300

International (Call Collect) 1-703-527-3887

Chemical Formula: Mixture

CAS No.: Not Applicable. Derivation: Not Applicable.

Synonyms: Not Applicable.

General Use: ASTM B 813 Compliant Soldering Flux
for Copper, Brass, Tin, and Steel.

Supplier/Importer:

Section 2 Composition/Information on Ingredients

Ingredient

Ammonium Chloride^{3,4,5,6}

For Fume - ACGIH: TWA = 10mg/m³ STEL = 20mg/m³

EPA: CERCLA RQ = 5000 lbs.

CAS No.

12125-02-9

%

2

(For Section 2 footnotes: See Section 15)

Section 3 Hazards Identification

EMERGENCY OVERVIEW: Caution: Soldering may produce irritating fumes and gases.
Use adequate ventilation.

POTENTIAL HEALTH EFFECTS:

Primary Entry Routes: Ingestion, Inhalation

Acute Effects

Eyes: Fumes evolved during soldering may be irritating.

Skin: Not Applicable.

Ingestion: Not Applicable.

Inhalation: Fumes evolved during soldering may be irritating.

Chronic Effects

Eyes: Not Applicable.

Skin: Not Applicable.

Ingestion: Not Applicable.

Inhalation: Not Applicable.

Carcinogenicity: Not Applicable.

Target Organ Effects: Not Applicable.

Medical Conditions Aggravated by Long-Term Exposure: Not Determined.

Other Information: BASED ON RESULTS OF INDEPENDENT TESTS AND IN ACCORDANCE WITH THE U.S. FEDERAL HAZARDOUS SUBSTANCES LABELING ACT AND U.S. CONSUMER PRODUCT SAFETY COMMISSION REGULATIONS, THIS PRODUCT IS NOT AN EYE OR SKIN IRRITANT, NOR IS IT TOXIC BY ORAL INGESTION.

HMIS Rating: Health 0, Flammability 1, Reactivity 0

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Section 4

First Aid

Eye Contact: Flush with water.

Skin Contact: Rinse with water.

Ingestion: Drink water if irritation develops.

Inhalation: Remove from exposure.

Other Information: Consult physician if any exposure symptoms persist.

Section 5

Fire Fighting Measures

Flash Point (method): Not Applicable.

Autoignition Temperature: Not Applicable.

LEL: Not Applicable. **UEL:** Not Applicable.

Flammability Classification: Not Applicable.

Extinguishing Media: Water fog, alcohol foam, dry chemical.

Hazardous Combustion Products: Carbon Monoxide, Carbon Dioxide, Ammonia, Ammonium Chloride, Hydrogen Chloride.

Unusual Fire or Explosion Hazards: Not Applicable.

Fire-Fighting Instructions/Equipment: Keep personnel removed and upwind of any fire. Wear full fire-fighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

NFPA Rating: Health 1, Flammability 1, Reactivity 0

Section 6

Accidental Release Measures

Use recommended personal protective equipment (see Section 8).

Small Spill: Scrape or wipe up. Flush remainder with water.

Large Spill: Contain spill. Scrape up for reuse or soak up with absorbent material. Flush remainder with water.

Section 7

Handling and Storage

Handling Precautions: Use recommended personal protective equipment (see Section 8). Wash thoroughly after handling.

Storage Requirements: Store in a cool, dry area.

Section 8

Exposure Controls/Personal Protection

Eye/Face Protection: Goggles or face shield recommended to protect from burns when soldering.

Skin Protection: Gloves recommended to protect from burns when soldering.

Respiratory Protection: Acid gas respirator in very enclosed areas.

Other Personal Protective Equipment: Eye wash and safety shower.

Engineering Controls: Normal room ventilation. Local exhaust in confined areas.

Administrative Controls: Users of this product must be properly trained and qualified in its use.

Other Information: Not Applicable.

Section 9

Physical and Chemical Properties

Appearance/Physical State: LIQUID: Green liquid. PASTE: Pale yellow gel.

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Odor: Low odor.

Odor Threshold (ppm): Not Determined.

Specific Gravity (H₂O = 1): Paste: 1.1, Liquid: 1.18 (9.80 lbs./gal.)

Solubility in Water: Soluble.

Coefficient of Water/Oil Solubility: >>1

pH: 7

Melting Point: Not Applicable.

Boiling Point: Not Applicable.

Vapor Pressure (mm Hg at 20°C): Not Applicable.

Vapor Density (Air = 1): Not Applicable.

Evaporation Rate (n-BuAc=1): <<1

V.O.C.: 0%(w/w), 0%(v/v), 0 lbs./gal., 0 kg/l

Section 10

Stability and Reactivity

Chemical Stability: Stable.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Not Applicable.

Chemicals to Avoid: Oxidizers, Cyanides, Sulfides.

Hazardous Decomposition Products: Not Applicable.

Section 11

Toxicological Information

Sensitization to Product: Not Applicable.

Irritancy of Product: Not Applicable.

Reproductive Toxicity: Not Applicable.

Teratogenicity: Not Applicable.

Mutagenicity: Not Applicable.

Toxicological information regarding individual ingredients, if applicable, may be found in Section 2.

Section 12

Ecological Information

Not Determined.

Section 13

Disposal Considerations

Dispose of in accordance with applicable federal, state, and local regulations.

Section 14

Transport Information

D.O.T. (U.S.)

Proper Shipping Name: Not Regulated.

Hazard Class or Division: Not Regulated.

Hazard Label: Not Regulated.

I.D. Number: Not Regulated.

TDG (Canada): Not Regulated.

IATA: Not Regulated.

ICAO: Not Regulated.

IMO: Not Regulated.

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Australian Code for the Transport of Dangerous Goods

Dangerous Goods Class and Subsidiary Risk: Not Determined.

Section 15

Regulatory Information

Footnotes for Section 2:

- 1 Subject to the reporting requirements of SARA Title III, Section 313.
- 2 Appears on the California Safe Drinking Water and Toxic Enforcement Act (Prop. 65) Substances List.
- 3 Appears on the Massachusetts Substances List.
- 4 Appears on the New Jersey Right-To-Know Hazardous Substances List.
- 5 Appears on the Pennsylvania Hazardous Substances List.
- 6 Appears on the Canadian WHMIS Ingredient Disclosure List.

U.S.A.

OSHA Hazard Status: This product is not considered to be hazardous as defined by the U.S. OSHA HCS (29 CFR 1910.1200).

EPA SARA sec. 311/312 Hazard Categories: Not Applicable.

Toxic Substances Control Act (TSCA): All ingredients contained in this product are listed on the U.S. EPA TSCA Chemical Substance Inventory.

HMIS Rating: Health 0, Flammability 1, Reactivity 0

NFPA Rating: Health 1, Flammability 1, Reactivity 0

American Society for Testing and Materials (ASTM): FLUX-RITE 90 meets ASTM Spec. B813.

Copper Development Association (CDA): FLUX-RITE 90 meets CDA Test Method 1.0.

CANADA

WHMIS Status: This product is not considered to be hazardous as defined by Canadian WHMIS Controlled Products Regulations.

WHMIS Rating: None.

WHMIS Risk Phrases: None.

WHMIS Precautionary Statements: None.

Domestic Substances List (DSL): All ingredients contained in this product are listed on the Canadian EPA (CEPA) Domestic Substances List (DSL).

E.U.

European Inventory of Existing Chemical Substances (EINECS): All ingredients contained in this product are listed on the European Inventory of Existing Chemical Substances (EINECS).

Categories of Danger (Labeling Information): None.

Risk (R) Phrases: None.

Safety (S) Phrases: Keep out of reach of children (S2)

AUSTRALIA

Worksafe Australia Status: This product is not classified as hazardous according to criteria of Worksafe Australia.

HAZCHEM Code: None allocated.

Poisons Schedule Number: None allocated.

Further regulatory information regarding individual ingredients, if applicable, may be found in Section 2.

This product has been classified in accordance with the hazard criteria of the U.S. OSHA Hazard Communication Standard, the Canadian WHMIS Controlled Products Regulations, the British CHIP2 regulation 6, and the Australian NMRCWHS. This MSDS contains the information required by the above regulations and conforms to ANSI Z400.1-1993.

Section 16

Other Information

MSDS Prepared By: Director of Chemical Safety

The information contained herein is based on data available to us and is accurate and reliable to the best of our knowledge and belief. However, LA-CO Industries, Inc. makes no representations as to its completeness or accuracy. Information is supplied on condition that persons receiving such information will make their own determination as to its suitability for their purposes prior to use. In no event will LA-CO Industries, Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon the information contained herein.