

Material Safety Data Sheet

Section 1 Product and Company Identification

Product Name:

BRITE REGULAR FLUX LIQUID

Revision #: 2.0

Date Prepared: June 3, 1993

Date Revised: June 14, 2001

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: Soldering Flux for use with Copper,
Galvanized Iron, Sheet Lead, Zinc, Nickel, Tin,
Silver, Mild Steel, Terne Plate, Malleable Iron.

Supplier/Importer:

Section 2 Composition/Information on Ingredients

Ingredient

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

CAS No.

12125-02-9

%

5 - 10

For Fume - ACGIH: TWA = 10mg/m³ STEL = 20mg/m³
EPA: CERCLA RQ = 5000 lbs.

(For Section 2 footnotes: See Section 15)

Section 3 Hazards Identification

EMERGENCY OVERVIEW: Fumes evolved during soldering may be irritating.

POTENTIAL HEALTH EFFECTS

Primary Exposure Routes: Eyes, Skin, Ingestion, Inhalation

Acute Effects

Eyes: Fumes evolved during soldering may be irritating depending on substrate conditions and type of solder used.

Skin: Not Applicable.

Ingestion: Not Applicable.

Inhalation: Fumes evolved during soldering may be irritating depending on substrate conditions and type of solder used.

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: LA-CO[®] BRITE REGULAR FLUX LIQUID WAS TESTED BY AN INDEPENDENT LABORATORY AND FOUND TO BE NON-TOXIC BY INGESTION AND NON-IRRITATING TO THE SKIN AND EYES WHEN TESTED IN ACCORDANCE WITH THE FEDERAL HAZARDOUS SUBSTANCES ACT. LA-CO[®] REGULAR FLUX PASTE, A MORE

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CONCENTRATED FORM OF LA-CO® BRITE WAS TESTED FOR INHALATION TOXICITY ACCORDING TO A MODIFIED CONSUMER PRODUCT SAFETY COMMISSION REGULATIONS PROCEDURE FROM THE CODE OF FEDERAL REGULATIONS, NO. 16, PART 1500.3 (6) (i). TESTING PRODUCED NO TOXIC EFFECTS.

LA-CO BRITE REGULAR FLUX LIQUID CONTAINS NO LEAD AND IS CONSIDERED A LEAD-FREE PRODUCT.

Section 4

First Aid

Eye Contact: Flush with water. Contact physician if irritation persists.

Skin Contact: Rinse with water. Contact physician if irritation persists.

Ingestion: Drink water if irritation develops. Contact physician if irritation persists.

Inhalation: Remove from exposure. Contact physician if irritation persists.

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: Not Applicable

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).

Section 6

Accidental Release Measures

Use recommended personal protective equipment (see Section 8).

Small Spill: Wipe up. Flush remainder with water.

Large Spill: Contain spill. 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 away from incompatible chemicals (see Sec. 10). 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/Hand Protection: Gloves recommended to protect from burns when soldering.

Respiratory Protection: : Acid gas respirator in very enclosed areas.

Other Equipment: Eye wash and safety shower recommended.

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

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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: Yellow to light brown colored liquid.

Odor: Low odor

Odor Threshold (ppm): Not Determined.

Specific Gravity (H₂O = 1): 1.08 (8.97 lbs./gal.)

Solubility - Water: Soluble.

- Fat: Insoluble.

Coefficient of Water/Oil Solubility: >>1

Partition Coefficient (n-octanol/water): <<1

pH: 6.5 to 7

Melting Point: Not Applicable.

Boiling Point: Approximately 212°F (100°C)

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

Vapor Density (Air = 1): Not Determined.

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

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

Flash Point (method): (see Section 5)

Autoignition Temperature: (see Section 5)

Flammability Classification: (see Section 5)

Unusual Fire or Explosion Hazards: (see Section 5)

Oxidizing Properties: Not Applicable.

Other Information: None.

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 (non-thermal): Not Determined.

Section 11 Toxicological Information

Sensitization to Product: Not Applicable.

Irritancy of Product: Fumes evolved during soldering may be irritating depending on substrate conditions and type of solder used.

Reproductive Toxicity: Not Applicable.

Teratogenicity: Not Applicable.

Mutagenicity: Not Applicable.

Further hazard information, if applicable, may be found in Section 3. Toxicological information regarding individual ingredients, if applicable, may be found in Section 2.

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Section 12

Ecological Information

Mobility: Not Determined.

Degradability: Not Determined.

Accumulation: Not Determined.

Ecotoxicity: Not Determined.

Other Adverse Effects: Not Determined.

Section 13

Disposal Considerations

Dispose of in accordance with all applicable regulations.

Section 14

Transport Information

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

Proper Shipping Name: Flux, Soldering, NOI, O/T Liquid

Hazard Class or Division: None

Hazard Label: None

I.D. Number: None

TDG (Canada): Flux, Soldering, NOI, O/T Liquid

IATA: Not Regulated.

ICAO: Not Regulated.

IMO: Not Regulated.

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 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: None.

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 1, Flammability 0, Reactivity 0

NFPA Rating: Health 1, Flammability 1, Reactivity 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

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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: None.

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.