

Material Safety Data Sheet

Section 1 Product and Company Identification

Product Name:

REGULAR FLUX PASTE

Revision #: 1.6

Date Prepared: December 2, 1994

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

%

10 - 20

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.

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: LA-CO REGULAR FLUX PASTE HAS BEEN TESTED BY AN INDEPENDENT LABORATORY AND FOUND TO BE NON-TOXIC, NON-IRRITATING TO THE EYES AND SKIN WHEN TESTED IN ACCORDANCE WITH THE U.S. FEDERAL HAZARDOUS LABELING ACT. LA-CO REGULAR FLUX PASTE WAS TESTED FOR INHALATION TOXICITY ACCORDING TO A MODIFIED U.S. CONSUMER PRODUCT SAFETY COMMISSION REGULATIONS PROCEDURE FROM THE U.S. CODE OF FEDERAL REGULATIONS, No. 16, PART 1500.3 (6) (i). TESTING

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PRODUCED NO TOXIC EFFECTS.

LA-CO REGULAR FLUX PASTE 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): >400°F/204°C. (toc)

Autoignition Temperature: Not Applicable.

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

Flammability Classification: Not Applicable

Extinguishing Media: Water fog, Carbon Dioxide (CO₂), 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).

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 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 in confined areas.

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

Other Information: Not Applicable.

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Section 9 Physical and Chemical Properties

Appearance/Physical State: Amber colored paste

Odor: Low odor

Odor Threshold (ppm): Not Determined.

Specific Gravity (H₂O = 1): 1.1

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: 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.(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 Applicable.

Section 11 Toxicological Information

Sensitization to Product: Not Applicable.

Irritancy of Product: Fumes evolved during soldering may be irritating.

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: 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.

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 1, 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.

Regular Flux Paste (UK) conforms to BS 6920 and is approved and WRc listed under the Water Supply (Water Fittings) Regulations 1999 (WRAS).

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.