

FLUX-RITE 90® Paste

LA-CO Industries, Inc.

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)
Date of issue: 12/02/1994 Revision date: 03/05/2015 Supersedes: 02/04/2013
Version: 2.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : FLUX-RITE 90® Paste

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Soldering flux

1.3. Details of the supplier of the safety data sheet

LA-CO Industries, Inc.
1201 Pratt Boulevard
Elk Grove Village, IL. 60007-5746
Phone: (847) 956-7600
Fax: (847) 956-9885
E-mail: customer_service@laco.com



1.4. Emergency telephone number

Emergency number : 24-hour emergency: CHEMTREC- U.S. : 1-800-424-9300 International: +1-703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification in accordance with the Globally Harmonized Standard

Not classified

2.2. Label elements

GHS-US labelling

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	% (w/w)	GHS-US classification
Ethanolamine hydrochloride	(CAS No) 2002-24-6	4.56	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
ammonium chloride	(CAS No) 12125-02-9	1.65	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
lithium chloride	(CAS No) 7447-41-8	1.32	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : Allow victim to breathe fresh air.
First-aid measures after skin contact : Wash skin with mild soap and water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a POISON CENTER or doctor/physician if you feel unwell.

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4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : Irritation.
Symptoms/injuries after eye contact : May cause slight irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No special procedures required.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry powder. Foam. Water fog.
Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : No particular fire or explosion hazard.
Reactivity : No dangerous reactions known.

5.3. Advice for firefighters

Firefighting instructions : Do not allow run-off from fire fighting to enter drains or water courses.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Fire-resistant protective clothing. Wear a self contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : This product is not hazardous.

6.1.1. For non-emergency personnel

Protective equipment : Chemical goggles or safety glasses.
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Chemical goggles or safety glasses.
Emergency procedures : No additional risk management measures required.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Absorb and/or contain spill with inert material, then place in suitable container.
Methods for cleaning up : Wipe up with absorbent material (for example cloth).

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Does not necessitate any specific/particular technical measures.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry, cool and well-ventilated place.
Incompatible products : None known.

7.3. Specific end use(s)

Flux.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

FLUX-RITE 90® Paste	
ACGIH	Not applicable
OSHA	Not applicable

ammonium chloride (12125-02-9)		
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
ACGIH	ACGIH STEL (mg/m ³)	20 mg/m ³
ACGIH	Remark (ACGIH)	Eye & URT irr
OSHA	Not applicable	
Canada (Quebec)	VECD (mg/m ³)	20 mg/m ³
Canada (Quebec)	VEMP (mg/m ³)	10 mg/m ³

lithium chloride (7447-41-8)	
ACGIH	Not applicable
OSHA	Not applicable

Ethanolamine hydrochloride (2002-24-6)	
ACGIH	Not applicable
OSHA	Not applicable

8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: None under normal use.
Eye protection	: In case of splashing or aerosol production: protective goggles.
Respiratory protection	: No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Paste.
Colour	: light yellow.
Odour	: slight.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.1
Solubility	: Material highly soluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

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Explosive limits : No data available

9.2. Other information

VOC content : 0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Thermal decomposition generates : ammonia. ammonium chloride. Carbon dioxide. Carbon monoxide. hydrogen chloride.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

ammonium chloride (12125-02-9)	
LD50 oral rat	1410 mg/kg
LD50 dermal rat	> 2000 mg/kg
ATE CLP (oral)	1410.000 mg/kg bodyweight

lithium chloride (7447-41-8)	
LD50 oral rat	526 mg/kg
LD50 dermal rat	> 2000 mg/kg No mortality observed
LC50 inhalation rat (mg/l)	5.57 mg/l/4h
ATE CLP (oral)	526.000 mg/kg bodyweight
ATE CLP (vapours)	5.570 mg/l/4h
ATE CLP (dust,mist)	5.570 mg/l/4h

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

ammonium chloride (12125-02-9)	
NOAEL (subchronic, oral, animal/male, 90 days)	>= 580 mg/kg bodyweight 56 days

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms

Symptoms/injuries after inhalation : Irritation.

Symptoms/injuries after eye contact : May cause slight irritation.

Likely routes of exposure : Skin and eye contact;Inhalation

SECTION 12: Ecological information

12.1 Toxicity

ammonium chloride (12125-02-9)	
LC50 fish 1	209 mg/l 96 h

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ammonium chloride (12125-02-9)	
EC50 Daphnia 1	101 mg/l 48 h

lithium chloride (7447-41-8)	
LC50 fish 1	158 mg/l 96 h
EC50 Daphnia 1	249 mg/l 48 h

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

lithium chloride (7447-41-8)	
Log Pow	-0.46

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with DOT and TDG

Not considered a dangerous good for transport regulations

Proper Shipping Name (ADR) : Not applicable

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

ammonium chloride (12125-02-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb

lithium chloride (7447-41-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Ethanolamine hydrochloride (2002-24-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

15.2. International regulations

CANADA

ammonium chloride (12125-02-9)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	

lithium chloride (7447-41-8)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	

Ethanolamine hydrochloride (2002-24-6)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	

EU-Regulations

ammonium chloride (12125-02-9)	
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)	

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lithium chloride (7447-41-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Ethanolamine hydrochloride (2002-24-6)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

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All components are listed on the EEC inventory European Inventory of Existing Commercial Chemical Substances (EINECS).

All ingredients are listed in the Toxic Substances Control Act (TSCA).

All ingredients are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).

15.3. US State regulations

ammonium chloride (12125-02-9)

U.S. - Massachusetts - Right To Know List

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Indication of changes

: Revised sections: 1 - 16.

Data sources

: ACGIH 2000.

Canadian Centre for Occupational Health and Safety. Accessed at:
http://www.ccohs.ca/oshanswers/legisl/whmis_classifi.html.

ESIS (European chemical Substances Information System; accessed at:
<http://esis.jrc.ec.europa.eu/index.php?PGM=cla>.

European Chemicals Agency (ECHA) Registered Substances list. Accessed at
<http://echa.europa.eu/>. Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.

National Fire Protection Association; Fire Protection Guide to Hazardous Materials; 10th edition.

OSHA 29CFR 1910.1200 Hazard Communication Standard.

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

TSCA Chemical Substance Inventory. Accessed at
<http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>.

Abbreviations and acronyms

: ACGIH (American Conference of Government Industrial Hygienists).

ATE: Acute Toxicity Estimate.

CAS (Chemical Abstracts Service) number.

CLP: Classification, Labelling, Packaging.

EC50: Environmental Concentration associated with a response by 50% of the test population.

GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).

LD50: Lethal Dose for 50% of the test population.

OSHA: Occupational Safety & Health Administration.

PBT: Persistent, Bioaccumulative, Toxic.

STEL: Short Term Exposure Limits.

TSCA: Toxic Substances Control Act.

TWA: Time Weight Average.

Other information

: None.

NFPA health hazard

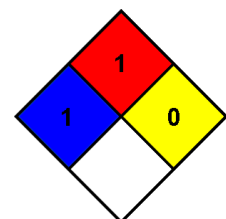
: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard

: 1 - Must be preheated before ignition can occur.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and not reactive with water.



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Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

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LACO NA GHS SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product