

A24-010

MATERIAL SAFETY DATA SHEET

FORCE INDUSTRIES DIVISION
American Solder and Flux Co., Inc.
28 Industrial Boulevard
Paoli, PA 19301

JAN 27 1997

MSDS: Lytestone
EFFECTIVE DATE: 4-7-94
REPLACES DATE: 2-1-91
PAGE: 1 of 5
CODE: 105

191 A Fallon Road
Hollister, CA 95023

PHONE NUMBER: (800) 647-3575 - DAY
EMERGENCY: (800) 424-9300 - ALL HOURS

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I. PRODUCT IDENTIFICATION
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PRODUCT NAME: AMCO Lytestone/#2 ALADDIN LOW ACID ALL PURPOSE FLUX

Appearance: Water clear liquid with no characteristic odor
Use: General purpose soft soldering flux, corrosive residue

CAS number: N/A - mixture
Name: N/A - mixture
Chemical Name & Synonyms: N/A - mixture

REGULATORY AND DEPARTMENT OF TRANSPORTATION INFORMATION: See Page 5

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II. CHEMICAL COMPOSITION
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<u>MATERIAL: CAS NAME</u>	<u>SARA/III</u>	<u>CAS#</u>	<u>PEL</u>	<u>HAZARD</u>
Zinc Chloride	< 45.0%	7646-85-7	1 mg/m ³	ACGIH
Ammonium Chloride	N/A	12125-02-9	10 mg/m ³	ACGIH
Hydrochloric Acid	< 1.0%	7647-01-0	7 mg/m ³	OSHA

Remaining ingredients, if any, are classified and claimed as trade secret.

N/A = Not Applicable
N/E = Not Established

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EMERGENCY PHONE NUMBER * CALL CHEMTREC (800) 424-9300 * AVAILABLE 24 HOURS
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While we believe all information presented herein is accurate and reliable, the data are not to be taken as a guarantee or representation of any kind for which Force Industries assumes legal responsibility. They are offered solely for your consideration, investigation, and verification.

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III. POTENTIAL HEALTH EFFECTS AND HEALTH HAZARD DATA

Target organ statement: DANGER: Causes severe burns to skin, eyes, and respiratory system. May be fatal if swallowed or inhaled.

PEL and Source Reference: ACGIH TLV: 2.33 mg/m³ for mixtures
OSHA PEL: N/E - Mixture

Effects of Chronic Exposure: Contact burns, irritation to skin (scarring), eyes and respiratory system. Possible liver and kidney effects.

Effects of Acute Overexposure

Swallowing: May be fatal. Can cause damage to digestive system. Corrosive to mucous membranes.

Skin Absorption: None currently known.

Inhalation: Irritation to respiratory system. Coughing and sneezing. Existing lung disorders will be aggravated.

Skin Contact: Dermatitis, possible chemical burns, corrosive to skin. Existing disorders will be aggravated.

Eye Contact: Irritation to eyes, tearing, burn of eye surfaces, corrosive to eyes, may cause blindness.

IV. EMERGENCY AND FIRST AID PROCEDURES

Swallowing: Call a physician at once or your poison control center. Advise of Section II immediately. May be fatal! Corrosive to mucous membranes.

Skin: Promptly flush with water to remove all residue. If rash or burn develops, consult a physician. Material is corrosive.

Inhalation: Remove to fresh air. If fumes are inhaled, call a physician.

Eyes: Flush with water for at least 15 minutes to remove all residue. Get medical help NOW! Blindness can result!

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V. FIRE AND EXPLOSION DATA

Flashpoint (°F): N/A

Flammable limits in air (% by volume)
LOWER: N/A
UPPER: N/A

Extinguishing media: Water, fog, or foam.

Special firefighting procedures: Full protective equipment required. May release zinc oxide and HCl fumes. Toxic metal halide fumes produced.

Unusual fire and explosion hazards: Dense smoke may be generated.

VI. REACTIVITY INFORMATION

Stability considerations: Stable
Conditions to avoid: None

Hazardous polymerization: Will not occur
Conditions to avoid: None

Incompatibility
Materials to avoid: None

Hazardous combustion or
Decomposition products: Hydrogen chloride and zinc oxide

VII. SPILL AND LEAK RESPONSE

Steps to be taken if material is released or spilled: Contain spill, absorb, sweep-up and dispose. Flush area to chemical sewer.

Waste disposal method: Dispose of in accordance with all local, state, and federal regulations.

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VIII. SPECIAL PROTECTION INFORMATION

Respiratory protection:

If the work station is not properly ventilated to exhaust all fumes and vapors, use a NIOSH approved mask.

Ventilation:

Maintain air flow away from user to remove all fumes and vapors, so that the PEL is never exceeded. Adhere to environmental regulations for exhausts.

Protective gloves:

Chemical and acid impervious.

Eye protection:

Chemical tight safety goggles. Do NOT wear contact lenses.

Other protective equipment:

Full protective equipment normally used in a soldering operation so as to prevent any contact.

IX. STORAGE, HANDLING AND SPECIAL PRECAUTIONS

Precautions to be taken in handling and storage:

Store flux at ambient conditions. Wash thoroughly after handling to remove all residue.

Other precautions:

Do NOT breathe fumes. Professionally wash contaminated clothing before re-use. Existing lung disorders will have increased toxic susceptibility.

X. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (°F @ 760 mmHg): ~215
Specific gravity (H₂O = 1 @ 72°F): 1.46
Vapor density (air = 1): < 1
Vapor pressure: 3.5
Percent volatiles by volume: 50
Solubility in water: Appreciable
Evaporation rate (butyl acetate = 1): < 1

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XI. OPTIONAL INFORMATION

Department of Transportation: DOMESTIC GROUND

Proper shipping name: Corrosive Liquid, N.O.S.
(Zinc Chloride, Hydrochloric Acid)
Hazard Class: Class 8
ID & Packing Group Number: UN 1760, PG III
ERG Guide Number: 60

Toxic Substance Control Act: All components of this compound are listed within the TSCA inventory.

Hazard Communication Program: Hazardous warnings and training requirements as mandated for
(29 CFR 1910.1200) corrosive material.

State Right-to-Know Programs:

Pennsylvania: All components are listed in PA 34 Title III.

California: As currently manufactured this material contains no compounds subject to the reporting and labelling requirements of Proposition 65.

Miscellaneous:

Material contains in excess 10% zinc chloride; classified as a marine pollutant.

Other regulations may apply when shipping this material and are in the process of change and update, verify all applicable regulations prior to shipment either domestically or internationally via air, ground, or water.

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