



MATERIAL SAFETY DATA SHEET

Aladdin #585 Super Soldering Flux

Ref. Revision Date: June 1, 2011 ID: AMCO 4952

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I. CHEMICAL COMPOSITION AND INFORMATION

= COMPONENTS - Chemical Name & Common Name(*Hazardous Components 1% or greater; Carcinogens 0.1% or greater)

This product, in usual physical or natural state does not present an inhalation, ingestion, or contact hazard. When subjected to welding, burning, grinding, cutting, heat treatment, machining, abrasive blasting, or similar operations, potentially hazardous fumes or dusts may be emitted.

COMPONENT	CAS NO.	%	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED
Zinc Chloride	7646-85-7		1 mg/m ³		Hazard: Corrosive
n-Propyl alcohol	71-23-8		500 mg/m ³		Hazard: Flammable
Fluoride (as sodium salt)	7681-49-4	2.5 mg/m ³			Hazard: Acute & chronic effects. See Section III.
Ammonium Chloride	12125-02-9		10 mg/m ³		Hazard: May be nuisance dust

Others, if any, are not in the lists of hazardous materials and are classified as trade secret.

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

II. PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: °F @ 760 mmHg: 207 **Specific Gravity** (H₂O = 1 @ 72°F): 1.51

Solubility in Water: =100 - complete **Melting temperature or range:** Active between 550 - 800 °F

Evaporation rate: (butyl acetate = 1) 1.3 **Appearance and Odor:** White slurry with alcohol **USE:** Aluminum soldering flux.
odor; corrosive, flammable

III. FIRE AND EXPLOSION HAZARD DATA

Flash Point (°F) 59 **Flammability Limits** in air % / volume: Lower: 2.1 Upper: 13.7

Extinguisher Media: Alcohol-type or all-purpose type foams for large fires. CO₂ or dry chemical for small fires..

Special Fire Fighting 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

IV. REACTIVITY HAZARD DATA

STABILITY = STABLE **Conditions to avoid:** Extreme high temperature / high pressure

Incompatibility (Materials to avoid): Strong nitric, sulfuric acids, cyanide

Hazardous Decomposition Products: In presence of water and heat - HCl and HF; also zinc oxide

Hazardous Polymerization: Will not occur.

**EMERGENCY PHONE NUMBER * CALL CHEMTREC (800) 424-9300 * AVAILABLE 24 HOURS



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V. POTENTIAL HEALTH HAZARD DATA

Target Organ Statement:

DANGER: Solids cause severe burns to skin, eyes and respiratory system. Fluorides affect bones, muscles and may have crippling effects - long term. Alcohol may affect kidneys.

Effects of Chronic Exposure: Dermatitis and contact burns to skin, eyes, and respiratory system. See target organ statement.

VI. EFFECTS OF ACUTE OVEREXPOSURE

Swallowing: Can cause damage to digestive system. Corrosive to mucous membranes
Skin Absorption/Contact: No known adverse absorption effects. Dermatitis; possible chemical burns corrosive to skin. Existing disorders will be aggravated
Inhalation: Irritation to respiratory system. Coughing, chest pains, nausea and headaches. Existing lung disorders will be aggravated.
Eye Contact: Irritation to eyes, tearing, burn of eye surfaces, corrosive.

VII. EMERGENCY AND FIRST AID PROCEDURES

SWALLOWING: Call a physical or poison control center at once; advise of chemical composition. (section 1) and Potential health effects, (section 5).
SKIN: Promptly wash with water to remove all residue. If a rash or burn develops, consult a physician. Material is corrosive. HF may be present.
INHALATION: Terminate exposure and remove to fresh air. Call physical immediately; advise of chemical composition (section 2) and potential health hazards, (section 5). Over inhalation may cause life-threatening lung injury.
EYES: Flush with water for at least 15 minutes to remove all residue. Get medical help. Blindness can result.

VIII. CONTROL AND PROTECTIVE MEASURES

Respiratory Protection: If the work station is not properly ventilated to exhaust all fumes and dusts, use a NIOSH approved mask.
Protective Gloves: Chemical and acid impervious.
Eye Protection: Chemical tight safety goggles. Do NOT wear contact lenses.
VENTILATION: Maintain air flow away from user to remove all fumes and dusts, so that the PEL is never exceeded. Adhere to Environmental regulations for exhausts.
 Conform with applicable regulatory statutes.
OTHER: Standard protective equipment normally used in soldering (/applicable) operations so as to prevent any contact.

IX. PRECAUTIONS FOR SAFE HANDLING AND USE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Store flux at ambient conditions, keep under extremely dry and controlled conditions. Wash thoroughly after handling to remove all residue.

OTHER PRECATIONS:

Do Not breathe fumes. May be fatal! Professionally wash contaminated clothing before re-use. Material will naturally absorb moisture and cake solid. Existing lung disorders will have increased toxic susceptibility.

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X. SPILL AND LEAK RESPONSE PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

If molten allowed to solidify, contain, absorb, sweep-up and dispose. Flush area to chemical sewer.

WASTE DISPOSAL METHOD: Dispose of in accordance with all federal, state, and local regulations.

XI. OPTIONAL INFORMATION

DEPARTMENT OF TRANSPORTATION:

Proper shipping name:

Hazard Class:

ID & Packing Group Number:

ERG Guide Number:

Domestic Ground
Flammable Liquids, Corrosive, N.O.S.
(n-Propyl Alcohol; Zinc chloride)
3, Subsidiary 8
UN 2924, PG III
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TOXIC SUBSTANCE CONTROL ACT:

All components of this compound are listed within the TSCA inventory.

SARA Title III Program:

Section 313 Supplier Notification:
This product contains the following toxic chemicals subject to the reporting requirements of EPCRA of 1986 and 40 CFR 372.

Table with 3 columns: Chemical Name, CAS No., Concentration. Row 1: Zinc Chloride, 7656-85-7, 65 %

This information must be included in all MSDS that are copied and distributed for this material.

STATE RIGHT-TO-KNOW PROGRAMS:

Pennsylvania: All materials of Section II are listed in PA code Title 34.

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

* GOOD HOUSEKEEPING PROCEDURES SHOULD BE MAINTAINED. PERSONNEL SHOULD WASH THOROUGHLY BEFORE SMOKING OR EATING. FOOD AND DRINK SHOULD NOT BE CONSUMED OR TOBACCO PRODUCTS USED, NOR COSMETICS APPLIED IN AREAS WHERE EXPOSURES EXIST.

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Aladdin #585 Super Soldering Flux (550°F - 800°F)

General Characteristics and Uses:

#585 flux is a white paste for high temperature soldering of aluminum & zinc diecast alloy. It is a reaction-type flux with the active ingredients dispersed in alcohol.

#585 flux demonstrates considerable shelf life stability in which the suspending agents prevent separation and recrystallization of the active ingredients. The performance of the paste in the form of zinc deposition is also consistent over time.

PHYSICAL DATA: White paste with alcohol odor containing chlorides and fluorides
Specific Gravity: 1.51 @ 73°F
Weight per gallon: 12.6 lbs.
Flash point: 71°F / TCC
Viscosity: 40,000 cps #6 spindle 10 rpm Brookfield Model RF 73°F
Active Ingredients: 70%

APPLICATION: Working Temperature Range: 550° - 800°F.
Can be used on all common aluminum alloys and zinc diecast alloy.
Recommended soldering alloys: All compositions tin-zinc alloys, 50/50 tin-lead and 98Zn/2Al; or any alloy/application for aluminum soldering which demands working temperature range between 550°F and 800°F.
Residue is corrosive but is easily removed with water or n-propyl alcohol.

CAUTION: WHEN USED WITH ALUMINUM, TOXIC FUMES WILL BE GIVEN OFF. READ AND UNDERSTAND THE MATERIAL SAFETY DATA SHEET.

NOTE: FLUX IS RATED BY D.O.T. AS CORROSIVE HAZARD - CANNOT SHIP BY AIR.