

Material Safety Data Sheet**Section 1****CHEMICAL PRODUCT SECTION**

Identification: Product Name: Flux Remover No Clean
Product Number: 8623

Recommend use: Removes no clean flux from printed circuit boards

Manufacturer: ACL Incorporated
840 W 49th Place
Chicago, IL 60609
PH: (01) 847.981.9212 [U.S.A.]
FAX: (01) 847.981.9278 [U.S.A.]

Emergency telephone: INFOTRAC: (01) 800.535.5053 (day or night)

Section 2**HAZARDOUS IDENTIFICATION****HMIS HAZARD RATING:**

(3) Fire (1) Health (0) Reactivity (B) Protective Equipment

Emergency Overview: Product is extremely flammable. Pressurized container may explode when exposed to heat or flame. Contact may cause skin and eye irritation. Mist may cause nose and throat irritation. Ingestion may cause nausea, vomiting, pain, upset stomach, and diarrhea.

Potential health effects:

Skin Contact: This product may cause irritation to the skin. Prolonged or repeated contact with this product may dry and/or defat the skin. This product may be harmful if it is absorbed through the skin.

Eye Contact: Liquid or vapors may irritate the eyes. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Eye contact may lead to permanent damage if not treated promptly.

Ingestion: This product is harmful if swallowed. Ingestion can cause gastrointestinal irritation, nausea, and diarrhea. **Target Organs:** Central Nervous System, lungs, skin, eyes.

Inhalation: This product may cause dizziness, nausea, upper respiratory irritation, drowsiness, mental depression or narcosis, difficulty in breathing, irregular heartbeats. See Section 8 for recommended exposure limits.

Classification of the chemical in accordance with paragraph (d) of §1910.1200:**Physical hazards**

Extremely flammable aerosol
Gases under pressure

Category 1
Liquefied gas

Extremely flammable aerosol
Contains gas under pressure; may
explode if heated.

Health hazards

Serious eye damage/eye irritation

Category 2A

Causes serious eye damage

Signal word:**DANGER****Hazard statement(s):**

Extremely flammable aerosol
Contains gas under pressure; may explode if heated

**Hazard symbol(s):****Precautionary statement(s) Prevention:**

Keep away from heat/sparks/open flames/hot surfaces. -No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Section 3 COMPOSITION / INFORMATION ON INGREDIENTS				
CHEMICAL	C.A.S. Number	EC#	Weight %	EU Classification and Risk phrases
Isohexane	64742-49-0	265-151-9	25-35%	Carc. Cat. 2; R45 Muta. Cat. 2; R46 Xn; R65
Acetone	67-64-1	200-662-2	35-45%	F; R11-Xi; R36 R66, R67
Ethanol	64-17-5	200-578-6	5 – 15%	F; R11
1,1,1,2-Tetrafluoroethane	811-97-2	212-377-0	2-12%	Not classified
Carbon Dioxide	124-38-9	204-696-9	10-20%	Not classified

Section 4 FIRST AID MEASURES

Inhalation: Move person to non-contaminated air. If the affected person is not breathing, apply artificial respiration. Call a physician if symptoms develop or persist.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Get prompt medical attention.

Skin Contact: Immediately flush with plenty of soap and water for at least 15 minutes. If irritation persists, get medical attention.

Ingestion: If the material is swallowed, get immediate medical attention or advice. DO NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Seek immediate medical attention. Do not give anything.

Section 5 FIRE FIGHTING MEASURES

Flash Point: concentrate: < 64.4°F / < 18°C

propellant: N/A

Flammability limits in air: 7.0 upper % by volume concentrate 1.0 lower % by volume concentrate
N/A upper % by volume propellant N/A lower % by volume propellant

Basic Fire Fighting Procedures: Dangerous when exposed to heat or flame. This material can be ignited by flame or spark under normal atmospheric condition. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back. Pressurized Container: May explode when exposed to heat or flame. Empty containers may retain product residue including Flammable or Explosive vapors. DO NOT cut, drill, grind, or weld near full, partially full, or empty product containers.

Fire Fighting Instructions: Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Extinguishing Media: Use dry chemical, carbon dioxide, or foam. Use water to cool fire-exposed containers and to protect personnel. Do not direct a solid stream of water or foam into hot, burning pools this may results in frothing and increase fire intensity.

Special Fire Fighting Procedures: Container could potentially burst or be punctured upon mechanical impact, releasing flammable vapors.

Unusual Fire & Explosion Hazards: During a fire, irritating and highly toxic gases may be generated during combustion or decomposition. High temperatures can cause sealed containers to rupture due to a buildup of internal pressures. Cool with water

Section 6 ACCIDENTAL RELEASE MEASURES
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Emergency Action: Remove all sources of ignition and ventilate area. Evacuate the area promptly and keep upwind of the spilled material.

Containment: Isolate the spill area to prevent people from entering. Wear appropriate protective equipment and clothing during clean-up. Stop discharge if safe to do so. Stop material from contaminating soil or from entering sewers or water streams. Cover spills with non-flammable absorbent and place in closed chemical waste containers.

Section 7	HANDLING AND STORAGE
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Handling: Keep this product away from heat, sparks or open flame. Avoid sources of ignition. Avoid getting this material into contact with your skin and eyes. Avoid breathing mists or aerosols of this product. Use this product with adequate ventilation. Do not reuse the empty container.

Storage: Store in a cool, dry, well-ventilated area. Keep away from direct sunlight.

Storage Temperatures: Ambient. Avoid freezing and do not store at temperatures above 120 ° F (48.9°C)

Storage Pressure: Atmospheric

General: Read and follow the directions on the product label; they are your best guide to using this product in the most effective way, and give the necessary safety precautions to protect your health.

Empty Container Precautions: Attention! Follow label warnings even after container is emptied since empty containers may retain product residues. Do not reuse empty container.

Section 8	EXPOSURE CONTROL / PERSONAL PROTECTION
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OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200): Exposure Limits 8 Hours TWA (ppm)

Component(s)	TLV	OSHA-PEL
Isohexane	500ppm	
Acetone	500ppm	1000ppm
Ethanol	1000ppm	
1,1,1,2- Tetrafluoroethane	1000ppm	
Carbon Dioxide	No data available	

Engineering Controls: Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

Personal Protection:

General: Use good hygiene practices in handling this material.

Respiratory Protection: Use NIOSH approved respiratory protection. High airborne concentrations may necessitate the use of self-contained breathing apparatus (SCBA).

Skin and Body Protection: Impervious gloves should be used when handling this product. Use of protective coveralls and long sleeves is recommended.

Eye Protection: Wear goggles or safety glasses with side shields.

Section 9	PHYSICAL AND CHEMICAL PROPERTIES
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Boiling Point.....NA	pH..... NA
% Solids.....NA	Evaporation Rate >1 (butyl acetate=1)
Specific Gravity 5.49	VOC (non-exempt).....40 %
Physical State.....Aerosol / liquid	
Odor..... Characteristic	Color:.....Clear

Section 10	STABILITY AND REACTIVITY
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General: This product is stable under normal storage conditions. Hazardous polymerization will not occur.

Incompatible Materials: Strong oxidizing agents, reducing agents, acids, bases.

Hazardous Decomposition: Carbon monoxide, carbon dioxide and hydrocarbon vapors.

Conditions to Avoid: Keep away from heat, direct sunlight, open flames, sparks, or sources of ignition.

Section 11	TOXICOLOGY INFORMATION
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Isohexane: Oral LD50: 25 g/kg (rat)
Inhalation LC50: 3125 ppm/4H (rat)
Dermal LD50: 1.3 g/kg (rabbit)

Acetone: Oral LD50: 5,800 mg/kg (rat)
Inhalation LC50: >16000 ppm/4H (rat)
Dermal LD50: >20,000 mg/kg (rabbit)

Methanol: Oral LD50: 300 mg/kg (human)

Ethanol: Oral LD50: 7,060 mg/kg (rat)
Dermal LD50: 20 g/kg (rabbit)

1,1,1,2-Tetrafluoroethane: Inhalation LC50: 1500 g/m³ (rat)

Carbon Dioxide: Inhalation LC50: 40000 ppm

Section 12	ECOLOGICAL INFORMATION
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No information

Section 13	DISPOSAL CONSIDERATIONS
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Do not puncture, incinerate or compact aerosol can.

When contents are depleted continue to depress button until all gas is expelled.

RCRA 40 CFR 261 Classifications:

As packaged and after use, this product is considered non-acute **Ignitable waste (code # D001)**.

Waste Disposal: Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Section 14	TRANSPORTATION INFORMATION
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U.S. DOT (Ground): Basic Description: NON HAZARDOUS MATERIAL
Proper Shipping Name: Consumer Commodity

U.S. DOT (AIR): Hazard Class: 9
Packaging Group: NA
UN Number: 1950
Limitations: NA

IATA Proper Shipping Name: Aerosols, Flammable
Hazard Class: 2.1
Packing Group: NA
UN Number: UN 1950
Limitations: Y203

OCEAN Proper Shipping Name: Aerosols, Flammable
Hazard Class: 2.1
Packing Group: NA
UN Number: UN 1950
Limitations: Y203

Section 15 REGULATORY INFORMATION

United States Federal Regulations: MSDS complies with the OSHA, 29 CFR 1910.1200.

SARA Superfund and Reauthorization Act of 1986 Title III sections 302, 311, 312 and 313:

Section 302 – None of the chemicals are EPCRA hazards

CERCLA/Superfund, 40 CFR 117, 302: Acetone 5,000 RQ;

CHEMICAL	C.A.S. Number	Weight %	Section 311/312
Isohexane	64742-49-0	25-35%	Acute Health Hazard; Fire Hazard
Acetone	67-64-1	35-45%	Acute Health Hazard; Fire Hazard
Ethanol	64-17-5	5-15%	Acute Health Hazard; Chronic Health Hazard; Fire Hazard
Carbon Dioxide	124-38-9	10-20%	Acute Health Hazard; Chronic Health Hazard

Section 313 – List of Toxic Chemicals (40CFR 372): This product does not contain chemicals (at level of 1% or greater) found on the 313 list of Toxic Chemicals.

Toxic Substance Control Act (TSCA): **All substances are TSCA listed.**

Resource Conservation and Recovery Act (RCRA 40 CFR 261) Subpart C & D: Refer to Section 13

Federal Water Pollution Control Act, Clean Water Act, 40 CFR 401.15 (formerly section 307) 40 CFR 116 (formerly section 311): This product does not contain listed chemicals

STATE REGULATIONS:

This MSDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

California Proposition 65: This product does not contain substances listed.

California Safer Consumer Products list(SCP): Isohexane is a candidate for the SCP: Carcinogenicity;

Genotoxicity (authoritative list: EC Annex VI CMRs - Cat. 1B)

Acetone is a candidate for the SCP: Candidate:Neurotox (Authoritative list: ATSDR Neurotoxicants)

INTERNATIONAL REGULATIONS:

Canada WHMIS: This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

REACH: To the best of our ability, this MSDS is written in accordance to REACH Directive EC1907/2006 Annex II and GHS requirements. This product does not contain substances listed on the Candidate List of Substances of Very High Concern (SVHC).

Sections 16 OTHER INFORMATION

REVISION DATES, SECTIONS, REVISED BY:

05-June-14 Original Preparer: Mary Kay Botkins

ABBREVIATIONS USED IN THIS DOCUMENT:

NE – Not Established, NA – Not Applicable, NIF – No Information Found, ND – Not Determined

ABRIDGED LIST OF REFERENCES:

Code of Federal Regulations (CFR)

The Sigma-Aldrich Library of Regulatory and Safety Data

Chemical Guide and OSHA Hazardous Communication Standard

The Environmental Protection Agency (www.epa.gov)

http://oehha.ca.gov/prop65/prop65_list

<http://orise.orau.gov/emi/hazards-assessment/files/resources/epa-title3.pdf>

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