

**SECTION 1: CHEMICAL PRODUCT AND COMPANY INFORMATION****Company Address:**8125 Cobb Center Drive  
Kennesaw, GA 30152Product Information: 800-TECH-401  
Customer Service: 800-645-5244Emergency: (Chemtrec) 800-424-9300  
Revision Date: February 10, 2007**Product Identification****CIRCUITWORKS® LEAD-FREE FLUX**

Product Code: CW3220

**SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS****Product Ingredient Information**

Product Ingredient Information	CAS#	Wt. % Range
Isopropanol	67-63-0	60.0-80.0
Rosin	8050-09-7	15.0-25.0
Tripropylene glycol butyl ether	55934-93-5	1.0-3.0
Mineral Spirits	64742-88-7	1.0-3.0

**SECTION 3: HAZARD IDENTIFICATION**

**Emergency Overview:** Clear, yellow liquid with strong alcohol odor. This product is flammable. Liquid will irritate eyes and skin under repeated or prolonged exposure. Breathing high concentrations of product vapor may produce drowsiness and a headache.

**Potential Health Effects:**

**Eyes:** Liquid and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation. Vapors released from the soldering process may cause eye irritation.

**Skin:** Prolonged contact may cause skin irritation and/or sensitization.

**Ingestion:** Harmful if swallowed. Irritating to mouth, throat and stomach. May cause vomiting.

**Inhalation:** Harmful if inhaled. High concentrations of vapors in immediate area can displace oxygen and can cause dizziness and unconsciousness, with longer exposure. Vapors from soldering processes may cause irritation of the nose and throat. Respiratory sensitization may result from inhalation of rosin fumes.

**Pre-Existing Medical Conditions Aggravated by Exposure:** Heart, lung, skin, eye.

**SECTION 4: FIRST AID MEASURES**

**Eyes:** If eye irritation occurs immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel if irritation develops or persists.

**Skin:** Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists. Wash clothing separately before reuse.

**Ingestion:** Swallowing less than an ounce will not cause significant harm. For larger amounts, do not induce vomiting, but get immediate medical attention.

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and get immediate medical attention.

**SECTION 5: FIRE FIGHTING MEASURES**

**Flash Point:** 62°F (17C) (TCC)

**LEL/UEL:** Not established (% by volume in air)

**Extinguishing Media:** Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

**Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus (pressure-demand, OSHA/NIOSH approved or equivalent) and full protective gear.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Spills:** Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container for proper disposal. Do not flush to sewer. Avoid runoff into storm sewers and ditches which lead to waterways.

**SECTION 7: HANDLING AND STORAGE**

Avoid prolonged or repeated contact with eyes and skin. Wash hands before eating. Use with adequate ventilation. Avoid breathing product vapor or mist. Avoid breathing vapors given off by the soldering process. Do not reuse this container. Store in a cool dry place away from heat, sparks and flame. Keep container closed when not in use. Do not store in direct sunlight.

**KEEP OUT OF REACH OF CHILDREN.**

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****Exposure Guidelines:**

CHEMICAL NAME	ACGIH TLV	OSHA PEL	ACGIH STEL
Isopropanol	200 ppm	400 ppm	400 ppm
Tripropylene glycol butyl ether	NA	NA	NA
Mineral Spirits	200 ppm	NA	NA

**Work/Hygienic Practices:** Ventilation is recommended to control airborne levels of soldering process vapors. Wear safety glasses with side shields (or goggles) and chemical resistant gloves when handling this material.

**NFPA and HMIS Codes:**

	NFPA	HMIS
Health	1	1
Flammability	3	3
Reactivity	0	0
Personal Protection	- B	

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State:** Yellow liquid

**Odor:** Alcohol

**pH:** NA

**Vapor Pressure:** 33 mm Hg @ 68°F

**Vapor Density:** 2.0

(Air=1)

**Boiling Point:** 180°F (82C)

**Solubility in Water:** Soluble

**Specific Gravity:** (Water =1) 0.85

**Evaporation Rate:** > 1

(Butyl acetate =1)

**Viscosity:** 1 (Approx.)

(Water = 1)

**Percent Volatile:** 75%

**SECTION 10: STABILITY AND REACTIVITY**

Stability - This product is stable.

Conditions to Avoid: Do not use near open flames, red hot surfaces or other sources of ignition.

Incompatibility: Do not mix with strong acids or strong oxidizing agents.

Products of Decomposition: Thermal decomposition may release carbon monoxide, carbon dioxide and incompletely burned hydrocarbons.

Hazardous Polymerization: Will not occur.

**SECTION 11: TOXICOLOGICAL INFORMATION****Toxicological Information**Inhalation:

Isopropanol LC50/rats 12,000 ppm/8hr

Ingestion:

Isopropanol LD50 rats 5,045 mg/kg

Skin:

Isopropanol Rabbit LD50 12,800 mg/kg

Eye:

Isopropanol rabbit MLD-MOD

Cancer Information: No ingredients listed as human carcinogens by NTP or IARC

Reproductive effects: none

Teratogenic effects: none

Mutagenic effects: none

**SECTION 12: ECOLOGICAL INFORMATION****Environmental Impact Information**

Avoid runoff into storm sewers and ditches which lead to waterways. Water runoff can cause environmental damage.

**REPORTING**

US regulations require reporting spills of this material that could reach any surface waters. The toll free number for the US Coast Guard National Response Center is: 1-800-424-8802

**SECTION 13: DISPOSAL CONSIDERATIONS**

Dispose of in accordance with all federal, state and local regulations. Water runoff can cause environmental damage.

**SECTION 14: TRANSPORTATION INFORMATION**

	Proper Shipping Name	UN Number	Class	Sub. Risk	Pkg. Group	Hazard Label	Pkg. Instr./Auth	Max. Quantity
<u>Air</u> :	Flammable liquid n.o.s. (Isopropanol)	UN 1993	3	NA	II	Flammable liquid	305	1L
<u>Ground</u> :	Consumer Commodity ORM-D	NA	NA	--	NA	ORM-D	173.150	

**SECTION 15: REGULATORY INFORMATION****SECTION 313 SUPPLIER NOTIFICATION**

This product contains no toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372).

This information should be included on all MSDSs copied and distributed for this material.

TOXIC SUBSTANCES CONTROL ACT (TSCA)

All ingredients of this product are listed on the TSCA Inventory.

WHMIS: Class B2; Class D2B

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**SECTION 16: OTHER INFORMATION**

Product should be used only with adequate ventilation. Mechanical ventilation is recommended on all soldering stations. If such ventilation is not available, personnel should wear NIOSH approved organic vapor respirators equipped with particulate dust filters specified for use during welding or soldering.

To the best of our knowledge, the information contained herein is accurate. However, all materials may present unknown hazards and should be used with caution. In particular, improper use of our products and their inappropriate combination with other products and substances may produce harmful results which cannot be anticipated. Final determination of the suitability of any material is the sole responsibility of the user. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that may exist.