

MATERIAL SAFETY DATA SHEET

Date-Issued : 08/14/2003
MSDS Ref. No : 360F
Date-Revised : 01/28/2010
Revision No : 2

#360F Liquid Flux

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: #360F Liquid Flux
PRODUCT DESCRIPTION: No Clean Liquid Flux

MANUFACTURER

Qualitek International, Inc.
 315 Fairbank St.
 Addison, IL 60101
Product Stewardship: (630) 628-8083

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Content</u>	<u>CAS</u>	<u>EINECS</u>
Ethanol	< 48 < 21	64-17-5	200-578-6
n-Propyl alcohol	< 18	71-23-8	200-746-9
Methanol	< 3	67-56-1	200-659-6

EEC LABEL SYMBOL AND CLASSIFICATION



EEC Highly flammable - "F"



EEC Irritant - "Xi"

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYES: Irritating, and may injure eye tissue if not removed promptly.

SKIN: Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).

INGESTION: Minimal toxicity. Small amounts of the liquid aspirated into the respiratory system during ingestion, or from vomiting, may cause bronchiopneumonia or pulmonary edema.

INHALATION: High vapor concentrations are irritating to the eyes, nose throat and lungs. May cause headaches and dizziness and may have other central nervous system effects. Negligible hazard at ambient temperature (-18 to 38°C).

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Stinging, tearing, redness and swelling.

SKIN: Redness, burning, drying, cracking and rash.

INGESTION: Nausea, vomiting, impaired coordination, diarrhea, dizziness, drowsiness, weakness, fatigue, headache and loss of consciousness.

CARCINOGENICITY: This product contains no components at concentrations of 0.1 percent or greater that are listed by IARC, NTP,

OSHA or ACGIH as carcinogens.

4. FIRST AID MEASURES

EYES: Remove any contact lenses. Immediately flush eyes with large quantities of water for at least 15 minutes. Get immediate medical attention.

SKIN: Immediately flush with large amounts of water. Use soap if available. Remove contaminated clothing, including shoes, after flushing has begun. Get medical attention as soon as possible.

INGESTION: If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention.

INHALATION: Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

NOTES TO PHYSICIAN: If symptoms such as loss of gag reflex, convulsions, or unconsciousness occur before vomiting, gastric lavage with a cuffed endotracheal tube should be considered. Metabolism of isopropanol forms acetone, which may be detected in the urine or expired air. In contrast to diabetic acidosis, acidosis will occur in the absence of hyperglycemia. Hemodialysis should be considered in severe acute intoxications.

COMMENTS: If victims of chemical over-exposure are taken for medical attention, give a copy of the label or this MSDS to the physician/health care professional.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: 12°C (53°F)

FLAMMABLE LIMITS: N/D

AUTOIGNITION TEMPERATURE: Not Determined

GENERAL HAZARD: Flammable Liquid. Can release vapors that form flammable mixtures at temperatures at or above the flash point. Empty containers retain product residue (liquid and/or vapor). DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

EXTINGUISHING MEDIA: Alcohol foam, carbon dioxide, or dry chemical.

HAZARDOUS COMBUSTION PRODUCTS: May include carbon monoxide and carbon dioxide.

FIRE FIGHTING PROCEDURES: Either allow fire to burn under controlled conditions or extinguish with alcohol type foam and dry chemical. Try to cover liquid spills with foam. Use water spray to cool fire exposed surfaces and to protect personnel. Shut off "fuel" to fire. If a leak or spill has not ignited, use water spray to disperse the vapors.

FIRE FIGHTING EQUIPMENT: Self contained breathing apparatus and full protective turn-out gear.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Recover by pumping (use an explosion proof or hand pump) or with a suitable absorbent. Consult an expert on disposal of recovered materials and ensure conformity to local disposal regulations.

LARGE SPILL: If in public area, keep public away and advise authorities. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Recover by pumping (use an explosion proof or hand pump) or with a suitable absorbent. Consult Section 13 for disposal information.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: In the event of a water spill, eliminate all sources of ignition. Warn occupants and shipping in surrounding and downwind areas of fire and explosion hazard and request that all stay clear.

LAND SPILL: In the event of a land spill, prevent liquid from entering sewers, watercourses, or low areas.

7. HANDLING AND STORAGE

HANDLING: Keep container closed. Handle and open containers with care. DO NOT handle near an open flame, heat, or other sources of ignition. DO NOT pressurize, cut, heat, or weld containers. Empty product containers may contain product residue. DO NOT reuse empty containers without commercial cleaning or reconditioning.

STORAGE: Store in a cool, well ventilated place away from incompatible materials. Do not store near an open flame, heat, or other source of ignition. Protect materials from direct sunlight.

ELECTROSTATIC ACCUMULATION HAZARD: Use proper grounding and bonding procedures when transferring material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

<u>Chemical Name</u>		<u>EXPOSURE LIMITS</u>					
		<u>OSHA PEL</u>		<u>ACGIH TLV</u>		<u>Supplier OEL</u>	
		<u>ppm</u>	<u>mg/m³</u>	<u>ppm</u>	<u>mg/m³</u>	<u>ppm</u>	<u>mg/m³</u>
Ethanol	TWA	1000 ppm ^[1]	1900 mg/m ³	1000 ppm	1880 mg/m ³	NL	NL
	STEL	NL ppm	NL mg/m ³	NL ppm	NL mg/m ³	NL	NL
n-Propyl alcohol	TWA	200 ppm	500 mg/m ³	200 ppm	492 mg/m ³	NL ppm	NL mg/m ³
	STEL	250 ppm	625 mg/m ³	250 ppm	614 mg/m ³	NL ppm	NL mg/m ³
Methanol	TWA	200(S) ppm ^[2]	260 mg/m ³	200(S) ppm	262 mg/m ³	NL ppm	NL mg/m ³
	STEL	250 ppm	310 mg/m ³	250 ppm	328 mg/m ³	NL ppm	NL

OSHA TABLE COMMENTS:

1. NL = Not Listed
2. S = Skin

ENGINEERING CONTROLS: Provide general and/or local exhaust ventilation to control airborne levels below the OSHA/ACGIH exposure guidelines.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear splash goggles or glasses with face shield.

SKIN: Neoprene rubber gloves, impermeable gloves, cuffed butyl-rubber gloves, or nitrile rubber gloves.

RESPIRATORY: Atmospheric levels should be maintained below the exposure guideline. For most conditions, no respiratory protection should be needed; however, if handling at elevated temperatures and/or without sufficient ventilation, use a NIOSH/MSHA approved air-purifying respirator.

PROTECTIVE CLOTHING: Protective clothing and safety shoes as necessary to minimize contact.

WORK HYGIENIC PRACTICES: Good personal hygiene practices should be used. Wash after any contact, before eating, and at the end of the work period.

OTHER USE PRECAUTIONS: Eye wash station and quick drench safety shower in immediate work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Slightly sharp alcohol odor.

APPEARANCE: Clear liquid

COLOR: Colorless

VAPOR PRESSURE: 33 mmHg at 20°C (68°F)

VAPOR DENSITY: > 1 (Air=1)

BOILING POINT: 79°C (174°F)

MELTING POINT: Not Applicable
SOLUBILITY IN WATER: Partially Soluble
EVAPORATION RATE: < 2.5 (n-Butyl Acetate=1)
SPECIFIC GRAVITY: 0.812 to 0.824

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Ignition sources such as sparks and open flames.

STABILITY: Stable under ordinary use and storage conditions.

POLYMERIZATION: Will not occur under normal use and storage conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: May emit toxic fumes of carbon monoxide and carbon dioxide.

INCOMPATIBLE MATERIALS: Caustics, amines, alkanamines, aldehydes, strong oxidizing agents, and chlorinated compounds.

11. TOXICOLOGICAL INFORMATION

GENERAL COMMENTS: No toxicological information available at this time.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: May be harmful to aquatic life. Aquatic toxicity rating (TLm 96) = 10 to 1000 ppm. No food chain concentration potential.

GENERAL COMMENTS: No information on ecological toxicity or biodegradability is available at this time.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of this material, contaminated absorbent material and other contaminated materials in an approved waste disposal facility, according to all applicable Federal, State, and Local regulations. Recovery and reuse, rather than disposal, should be the ultimate goal in handling efforts.

EMPTY CONTAINER: Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or otherwise properly disposed of.

GENERAL COMMENTS: This substance, when discarded or disposed of, could be hazardous waste according to Federal regulations (40 CFR 261) due to its characteristic of ignitability (D001). The transportation, storage, and disposal of this waste material must be conducted in compliance with 40 CFR 262, 263, 264, 268 and 270. Disposal can occur only in properly permitted facilities. Check state and local regulations for any additional requirements, as these may be more restrictive than federal laws and regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in the MSDS incomplete, inaccurate or otherwise inappropriate.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Flammable Liquid, N.O.S.

TECHNICAL NAME: Contains Ethanol

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: UN 1993

PACKING GROUP: II

PLACARDS: Flammable Liquid

LABEL: Flammable Liquid

15. REGULATORY INFORMATION

UNITED STATES

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: Not subject to any special reporting under the requirements of the Comprehensive Environmental Response,

Compensation, and Liability Act (CERCLA).

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: All ingredients are listed or are exempt from listing (as polymers) on the Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): WHMIS Hazardous Ingredients: 2-Propanol

WHMIS CLASS: Class B Division 2, Class D Division 2B

EUROPEAN COMMUNITY**EEC LABEL SYMBOL AND CLASSIFICATION**

Highly flammable (R-11) Keep away from sources of ignition - No smoking (S-16)

EEC Highly flammable - "F"



Irritating to eyes (R-36) Vapors may cause drowsiness and dizziness (R-67) Avoid contact with skin (S-24) and eyes (S-25) In case of contact with eyes, rinse immediately with plenty of water and seek medical advice (S-26)

EEC Irritant - "Xi"

CALIFORNIA PROPOSITION 65: When used for soldering and similar applications chemicals may be produced which are known to some states to cause birth defects or other reproductive harm.

16. OTHER INFORMATION

APPROVED BY: Tippy Wicker **TITLE:** Director of Product Development

PREPARED BY: B. Backes

INFORMATION CONTACT: (630) 628-8083

REVISION SUMMARY Revision #: 2 This MSDS replaces the February 05, 2007 MSDS. Any changes in information are as follows: In Section 1 MSDS Number

HMIS RATING

HEALTH:	<input type="checkbox"/>	2
FLAMMABILITY:	<input type="checkbox"/>	3
PHYSICAL HAZARD:	<input type="checkbox"/>	0
PERSONAL PROTECTION:		C

MANUFACTURER DISCLAIMER: The information contained herein is based upon data considered to be accurate and is offered solely for information, customer consideration and investigation. The manufacturer extends no warranties, makes no representations and assumes no responsibility as to the accuracy, completeness or suitability of this data for any purchaser's use. The content of this Material Safety Data Sheet relates only to this product as sold and does not relate to use with any other material or in any process. All chemical products should be used only by, or under, the direction of technically qualified personnel, who are aware of the hazards involved and of the necessity for reasonable care in handling. Hazard communication regulations, United States Occupational Health and Safety (OSHA) and Canadian Workplace Hazardous Materials Information System (WHMIS) require that employees must be trained in the use of Material Safety Data Sheets as a source of hazards information and response.