

MATERIAL SAFETY DATA SHEET

HAL-776 (Hot Air Leveling) Flux

PRODUCT IDENTIFICATION AND USE

Manufacturer:

Amtech Solder Products, Inc.
75 Schoolground Road
Branford, CT 06405

Customer Service: 203-481-0362, 1-800-435-0317

Emergency Telephone Numbers

Emergency Contract: Infotrac

Emergency Phone: 1-800-535-5053

support@amtechinc.com

PRODUCT NAME & NUMBER AS USED ON LABEL : HAL-776 Flux		
PRODUCT USE : Soldering flux for PCB Fabrication.	NFPA HAZARD RATING	4-EXTREME
DATE ISSUE : January 14, 2003	HEALTH : 1	3-HIGH
FREIGHT CLASSIFICATION	FLAMMABILITY : 0	2-MODERATE
D.O.T. : N/A	REACTIVITY : 0	1-SLIGHT
TDG : N/A	SPECIAL	0-INSIGNIFICANT

II - INGREDIENTS AND HAZARDS

HAZARDOUS INGREDIENTS \geq 1% , CARCINOGENS \geq 0.1%	WEIGHT %	OSHA PEL (ppm)
Polyoxyethylene/Propylene Glycol, CAS: 9003-11-6	70-85	N.E
NON-HAZARDOUS INGREDIENTS		
Proprietary Additive	15-30	N.A
NOTES : N.A – Not Applicable, N.E – Not established, U.N – unknown		

(1) Per 29 CFR 1910 the mixture has not been tested as a whole. All hazardous components, which comprise \geq 1% of the mixture (0.1% if carcinogenic) is listed. Percentages of individual components are not listed as this information is considered a trade secret.

(2) The identity of the specific chemical(s) is being withheld as a trade secret per 29 CFR 1910.1200. The hazardous properties of these ingredients are disclosed in this MSDS.

III - PHYSICAL DATA

BOILING POINT (760 mmHg) : 212°F	SPECIFIC GRAVITY AT 60°F : 1.10 +/- 0.02
VAPOR PRESSURE(mmHg at 20°C) : N.D	MELTING POINT(°C) : N.A
VAPOR DENSITY(AIR=1) : N.D	EVAPORATION RATE(BUTYL ACETATE=1): 1.45
SOLUBILITY WATER(%BY WT) : Complete	%VOLATILE(BY WEIGHT) : 0
pH VALUE(conc) : 1.45	VOLATILE ORGANIC COMPOUND(VOC): N.E
APPEARANCE AND ODOR : Colorless clear liquid with alcohol odor.	

IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT(C.O.C) : >510°F	LOWER EXPLOSION LIMIT % BY VOL IN AIR : N.D
AUTO-IGNITION TEMPERATURE : N.D	UPPER EXPLOSION LIMIT % BY VOL IN AIR : N.D
EXTINGUISHING MEDIA [] WATER [x] ALCOHOL FOAM [x] CO ₂ [x] DRY CHEMICAL	
HAZARDOUS COMBUSTION PRODUCTS : None	
SPECIAL FIREFIGHTING PROCEDURES : None	
UNUSUAL FIRE AND EXPLOSION HAZARDS : None	

V - REACTIVITY HAZARD DATA

STABILITY : [x] STABLE [] UNSTABLE	CONDITIONS TO AVOID : See Below
INCOMPATIBILITY(MATERIALS TO AVOID) : Strong Alkali	
HAZARDOUS DECOMPOSITION : Carbon Dioxide/Carbon Dioxide	
HAZARDOUS POLYMERIZATION : [] MAY OCCUR [x] WILL NOT OCCUR	
CONDITIONS TO AVOID : Direct heat, Open flames & Storage in Aluminum	

VI - HEALTH HAZARD DATA

PRIMARY ROUTES OF ENTRY : [] SKIN [x] EYES [x] INHALATION [x] INGESTION	
EFFECTS OF ACUTE EXPOSURE (SEVERE SHORT-TERM)	EMERGENCY FIRST AID
<p>INHALATION : May cause mild throat irritation. High concentrations may cause headache, dizziness, narcosis and nausea.</p> <p>INGESTION : May result in Gastric Disturbance.</p> <p>SKIN CONTACT: May cause mild irritation. Skin absorption will not occur.</p> <p>EYE CONTACT : Vapors may be irritating, liquid may damage eye tissue.</p>	Remove victim to fresh air. Induce vomiting and get prompt medical attention Wash thoroughly with soap and water. Flush eyes with plenty of water.
EFFECT OF CHRONIC EXPOSURE (PROLONGED): Prolonged or repeated skin contact can result in rash and dryness. Inhalation of vapors can result in headache, dizziness, narcosis and irritation of mucous membranes.	Seek Medical Assistance For Further Treatment, Observation And Support If Needed.
CARCINOGEN : [] NTP [] OSHA [] IARC [x] NOT LISTED	

VII - PROCEDURES FOR MATERIAL CONTROL

SPILL OR LEAK PROCEDURE: Remove all ignition sources. Provide adequate ventilation. Absorbents such as vermiculite can be use to soak up the spilled liquid. Clean up the residue vermiculite can be use to soak up the spilled liquid. Clean up the residue with soap or detergent and rinse with water.

WASTE DISPOSAL METHODS: According to local regulation, usually by incineration or by Government contractors.

HANDLING AND STORAGE : Avoid eye contact, prolonged or repeated skin contact and breathing smoke / fumes generated during soldering. Store away from source of ignition.

Storage temperature : 20 – 30°C [] Indoor [] Outdoor

REGULATORY INFORMATION: All components in this product are listed on the TSCA Inventory.

If spill occurs, no reporting under CERCLA is required.

VIII- PROTECTIVE MEASURES

PROTECTIVE GLOVES : Wear chemically resistant gloves where necessary to avoid skin contact.

EYE PROTECTION : Put on safety glasses or goggles when splashing is likely to occur.

RESPIRATORY PROTECTION : Usually not required. Only when ventilation is not adequate to remove fume from the breathing zone, a cartridge type respirator should be worn.

VENTILATION TO BE USED : Provide adequate exhaust ventilation to meet TLV requirements.

OTHER SAFETY EQUIPMENT: Plastic or rubber apron to be worn when splashing is likely to occur.

HYGIENIC WORK PRACTICES: Wash hands before eating foods or drinks.

DISPOSAL, SPILL OR LEAK PROCEDURES

AQUATIC TOXICITY CLASSIFICATION: Not Established

PROCEDURES FOR RELEASE / SPILL: Rinse with water

REGULATORY INFORMATION: All components in this product are listed on the TSCA Inventory
If spilled, no reporting under CERCLA is required.