



SAFETY DATA SHEET

Section 1: Product and Company Identification

Product Name: UTILITY WATER FLUX



Product Use: B-813 compliant water-flushable soldering flux for copper, brass, galvanized iron, lead, zinc, tin, silver, nickel, mild steel, terne plate and malleable iron.

Manufacturer: **UTILITY**
700 Main Street
Westbury, NY 11590

Phone Number: Tel: 1-516-997-6300
Fax: 1-516-997-6345

24-hour Emergency: INFOTRAC: (800) 535-5053

Section 2: Hazards Identification

Protective Clothing	NFPA Rating (USA)	EU Classification	WHMIS (Canada)	Transportation
		Not classified as dangerous	 Not controlled	Not Regulated

Emergency Overview: Exposure to hazardous substances is not expected when handling this product for its intended use.

Appearance, Color and Odor: Tan paste; faint odor.

USA: This material is not considered hazardous by the OSHA hazard Communication Standard (29 CFR 1910.1200).

Canada: This is not a controlled product under WHMIS.

European Union (EU): This product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Potential Health Effects

ACUTE (short term): see Section 8 for exposure controls

Relevant Route(s) of Exposure:

Skin contact, Inhalation.

Inhalation: Inhalation of vapors is not expected with normal use. Over exposure to high vapor concentrations may cause nasal and respiratory irritation, sore throat, coughing and difficulty breathing. High concentrations may also cause dizziness, headache, nausea, vomiting or in extreme cases, unconsciousness or asphyxiation.

Ingestion: Not an expected route of occupational exposure. Low oral toxicity. Swallowing large quantities may cause abdominal and chest pain, nausea, vomiting, diarrhea or dizziness. Aspiration into the lungs may occur during swallowing or from vomiting, resulting in lung injury.

Skin: This product has been tested and found to be non-irritating to skin.

Eye: This product has been tested and found to be non-irritating to eyes. Solids may cause temporary irritation as a foreign object in the eye.

CHRONIC (long term): see Section 11 for additional toxicological data

Chronic effects are not expected with normal use. Prolonged or repeated over exposure to high vapor concentrations may cause damage to the respiratory tract or lungs.

Medical Conditions Aggravated by Exposure:

Individuals with pre-existing or chronic diseases of the eyes, skin, respiratory system, cardiovascular system, gastrointestinal system, liver, or kidneys may have increased susceptibility to excessive exposure.

Interactions With Other Chemicals:

Not available



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Section 3: Composition / Information on Ingredients

Hazardous Ingredients:

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Wt. %</u>	<u>EINECS / ELINCS</u>	<u>Symbol</u>	<u>Risk Phrases</u>
Ammonium Chloride	12125-02-9	5 – 25	235-186-4	Xn, Xi	R22, R36
Zinc Chloride	7646-85-7	5 - 25	231-592-0	Xn, Xi	R22,R36

Note: See Section 16 for the full text of the R-phrases above.

Section 4: First Aid Measures

Inhalation: Move victim to fresh air and get medical attention.

Eye Contact: Flush with water for 15 minutes. Get medical attention.

Skin Contact: Quickly and gently, blot or brush away excess paste. Remove contaminated clothing and shoes. Wash with lukewarm water and non-abrasive soap. If irritation develops, get medical attention.

Ingestion: Call a physician or Poison Control Center at once. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Section 5: Fire Fighting Measures

Flammable Properties: Product will burn if involved in a fire but does not ignite readily.

Suitable extinguishing Media: Use water spray, dry chemical, carbon dioxide, or an appropriate foam. Use water spray to cool fire-exposed containers.

Unsuitable extinguishing Media: Not applicable

Explosion Data:

Sensitivity to Mechanical Impact: Not applicable

Sensitivity to Static Discharge: Not applicable

Specific Hazards arising from the Chemical: During a fire, products of combustion may include carbon dioxide, carbon monoxide, ammonia, hydrogen chloride, smoke and irritating and toxic fumes may be formed.

Protective Equipment and precautions for firefighters: Self-contained breathing apparatus and protective clothing should be worn. Remove all unprotected personnel.

NFPA

Health: 0
Flammability: 0
Instability: 0

Section 6: Accidental Release Measures

Personal Precautions: Wear protective gloves. Spilled product may pose a slipping hazard.

Environmental Precautions: Prevent the product from entering sewers or waterways.

Methods for Containment: Stop the spill if it is safe to do so. Contain spilled flux with earth, sand, or absorbent material which does not react with spilled material.

Methods for Clean-up: Scrape or scoop up the spilled product and collect for proper disposal. Dispose of any contaminated, unusable product as described in Section 13 of this SDS.



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Section 7: Handling and Storage

Handling: Avoid contact with eyes and skin; do not breathe fumes. Do not ingest. Keep out of reach of children. Use this material with adequate ventilation. Keep container closed when not in use. Wash thoroughly with detergent and water after handling, before eating, drinking, smoking or using the toilet.

Storage: Store in a cool, dry area, away from incompatible materials (see Section 10).

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines

Ingredient	ACGIH TLV (8-hr. TWA)	U.S. OSHA PEL (8-hr. TWA)	Ontario (Canada) TWAEV	UK OEL (8-hr. TWA)
Ammonium Chloride	10 mg/m ³ (fume); 20 mg/m ³ STEL	10 mg/m ³ (fume); 20 mg/m ³ STEL	10 mg/m ³ ; 20 mg/m ³ STEV	10 mg/m ³ (fume); 20 mg/m ³ STEL
Zinc Chloride	1 mg/m ³ (fume); 2 mg/m ³ STEL	1 mg/m ³ (fume); 2 mg/m ³ STEL	1 mg/m ³ ; 2 mg/m ³ STEL	1 mg/m ³ (fume); 2 mg/m ³ STEL

STEV = Short Term Exposure Value STEL = Short Term Exposure Limit

Exposure Controls

Engineering Controls: Provide adequate ventilation/local exhaust to keep vapor concentrations below the exposure limits listed above.

Personal Protection: Workers must comply with the Personal Protective Equipment requirements of the workplace in which this product is handled. For operations requiring specific protection for mechanical hazards and heat protection refer to the appropriate occupational safety standard.

Eye/Face Protection: Wear eye/face protection (e.g. goggles/face shield) appropriate for the workplace where this material is handled and the conditions of use.

Skin Protection: Wear appropriate protective gloves and clean, body-covering clothing, when workplace conditions warrant their use.

Respiratory Protection: If ventilation and other engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protective equipment (RPE). Where occupational exposure limits are exceeded, workers must wear an approved respirator. In workplaces where respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection. Consult with respirator manufacturer to determine respirator selection, use and limitations.

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements, European Standard EN529 or Canadian Standards Association (CSA) Standard Z94.4-2002 must be followed whenever workplace conditions warrant a respirator's use.

General Hygiene Measures: Do not ingest. Avoid contact with skin and eyes. Keep out of reach of children. Wash hands after handling.

Section 9: Physical and Chemical Properties

Physical State:	Paste	Vapor Pressure (mm Hg @ 25°C):	<0.01 @ 68°F (20°C)
Appearance:	Tan	Vapor Density (Air = 1):	>10 calculated
pH:	Not measurable	Volatile Organic Compounds (VOC) Content:	0% or (0g/L)
Relative Density (water = 1):	1.1	Solubility in Water:	100%
Boiling Point:	> 200°C calculated	Odor Type:	Low odor
Freezing Point:	4 – 8°C ASTM D1177	Odor Threshold:	Not applicable
Viscosity:	6.8 – 8.0 cSt @ 98.9°C <small>ASTM D445</small>	Evaporation Rate (n-Butyl Acetate = 1):	Not applicable
Oxidizing Properties:	Not applicable	Auto Ignition Temperature (°C):	No test data available
Flash Point and Method:	>204°C (400°F) TOC	Flammability Limits (%):	No test data available



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Section 10: Stability and Reactivity

Chemical Stability:	Stable at normal room temperature.
Conditions to Avoid:	None known
Incompatible Materials:	None known
Hazardous Decomposition Products:	Toxic fumes of zinc, chloride and HCl may evolve during soldering.
Possibility of Hazardous Reactions:	Hazardous polymerization will not occur.

Section 11: Toxicological Information

Toxicity Data:

Zinc Chloride:	Oral-Rat LD ₅₀ :	> 350 mg/kg (rat)
	Inhalation-Rat	LCLo Oral: 1960 mg/m ³ /10M
Ammonium Chloride:	Oral-Rat LD ₅₀ :	> 1650 mg/kg (rat)
	Inhalation-Rat	LC50 Oral: N/D

Chronic Toxicity Data

Carcinogenicity: Normal use of this product will not result in exposure to any component that is considered a human carcinogen by IARC (International Agency for Research on Cancer), ACGIH (American Conference of Governmental Industrial Hygienists, OSHA or NTP (National Toxicology Program)).

Section 12: Ecological Information

Ecotoxicity:	Zinc Chloride - 7.2 ppm/96hr/medium bluegill/TLm Ammonium Chloride - 6 ppm/96hr/sunfish/TLm
Persistence/Degradability:	None known
Bioaccumulation/Accumulation:	Product is biodegradable. Any products of degradation are less toxic than the original components.
Mobility:	Not applicable

Section 13: Disposal Considerations

Waste Disposal Method:	Do not discard into any sewers, on the ground or into any body of water. Store material for disposal as indicated in Section 7 Handling and Storage. The conditions of use, storage and disposal of this product are beyond our control and may be beyond our knowledge. The supplier does not assume responsibility and expressly disclaims liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.
USA:	Dispose of in accordance with local, state and federal laws and regulations.
Canada:	Dispose of in accordance with local, provincial and federal laws and regulations.
EU:	Waste must be disposed of in accordance with relevant EU Directives and national, regional and local environmental control regulations.

Section 14: Transport Information:

U.S. Hazardous Materials Regulation (DOT 49CFR):	Not regulated
Canadian Transportation of Dangerous Goods (TDG):	Not regulated
ADR/RID:	Not regulated
IMDG:	Not regulated
Marine Pollutants:	Not applicable
ICAO/IATA:	Not regulated



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Section 15: Regulatory Information

USA	TSCA Status: All ingredients in the product are listed on the TSCA inventory.
	SARA Title III
	Sec. 302/304: None
	Sec. 311/312: Not applicable
	Sec. 313: Not applicable
	CERCLA RQ: Not applicable
	California Prop 65: This product is not known to contain chemicals known to the State of California to cause cancer or reproductive harm.
Canada	This product has been classified in accordance with the hazard criteria of the <i>Controlled Products Regulations</i> and the MSDS contains all the information required by the <i>Controlled Products Regulations</i> .
	WHMIS Classification: Not controlled
	DSL: All component substances are listed on Canada's Domestic Substances List (DSL).
EU Classification for the Substance/Preparation	
	Symbol: This product is not classified as dangerous according to Directive 1999/45/EC and its amendments.
	Safety Phrases: S1/2: Keep locked up and out of the reach of children.

Section 16: Other Information

Full Text of R-phrases appearing in Section 3:	R22: Harmful if swallowed R36: Irritating to eyes
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Disclaimer:

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