MATERIAL SAFETY DATA SHEET

PLEASE CAREFULLY READ AND UNDERSTAND THIS MATERIAL SAFETY DATA SHEET BEFORE USING THIS PRODUCT

For Welding Consumables and Related Products

May be used to comply with OSHA's Hazards Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

SECTION I (IDENTIFICATION)

Manufacturer/Supplier Name: UNIWELD PRODUCTS, INC. Emergency Phone No.: (954) 584-2000
2850 Ravenswood Road
Fort Lauderdale, FL 33312
Product Name(s): **UNI-1450 FLUX**
Product Classification: **INORGANIC ACID SOLDERING FLUX**

SECTION II (HAZARDOUS INGREDIENTS/IDENTITY INFORMATION)

Important: This section covers the materials from which these products are manufactured. The fumes and gases produced during normal use of these products are covered by Section V. The term "Hazardous Materials" should be interpreted as a term required and defined in OSHA Hazard Communication Standard 26 CFR 1910.1200 and it does not necessarily imply the existence of hazard.

INGREDIENT	CAS NO.	EXPOSURE LIMIT (mg/m^3)	
		OSHA PEL	ACGIH TLV
HYDROCHLORIC ACID	7647-01-0	5	N/A
ZINC CHLORIDE	7647-01-0	1	N/A
AMMONIUM CHLORIDE	12125-02-9	N/A	N/A

SECTION III (PHYSICAL DATA)

Boiling Point:	104°C/220°F	Specific Gravity (H_2O = 1 @ 72°F):	1.30
Vapor pressure (mm Hg):	N/A	Percent volatile by volume:	64%
Vapor density (Air = 1):	N/A	Evaporation rate (Butyl Acetate = 1):	0.6
Melting temperature or range:	-0°C/32°F	Solubility in water:	Unlimited
Reactivity in water:	None	Appearance and odor:	Clear, odorless liquid

SECTION IV (FIRE AND EXPLOSION HAZARD DATA)

Flash Point (°F): None
Extinguishing media: Dry chemical, CO_2 foam
Unusual fire and explosion hazard: will release hydrochloric acid fumes upon decomposition
Special fire fighting procedures: Normal caution when dealing with chemical
Auto ignition temperature: None

SECTION V (REACTIVITY DATA)

Stability: Hazardous polymerization will not occur.
Incompatibility (material to avoid): Alkalis, oxidizing or reducing materials, cylinders or combustible materials
Conditions to avoid: Contact with metals, excessive heat or cold
Hazardous Polymerization: Will not occur.
Hazardous decomposition products: HCI, zinc chloride, zinc oxide, ammonium

One recommended way to determine the composition and quantity of fumes to which workers are exposed is to take an air sample inside the welder's helmet. If worn, or in the worker's breathing zone. (See ANSI/AWS F1.1, available from the American Welding Society, P.O. Box 351040, Miami, FL 33135. Also from AWS is F1.3, "Evaluating Contaminants in the Welding Environment – A Sampling Strategy Guide," which gives additional advice on sampling.) At a minimum, materials listed in this section should be analyzed for the following:

SECTION VI (HEALTH HAZARD DATA)

PRIMARY ROUTES OF ENTRY TO BODY: fume inhalation, ingestion, skin, and eyes.

SIGNS AND SYMPTOMS OF EXPOSURE: (1) **Acute overexposure**: Pulmonary edema, abdominal pain, vomiting, eye damage, and skin burn. (2) **Chronic overexposure**: No specific information available.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None presently known.

HEALTH HAZARDS: OSHA permissible exposure limit (PEL): 1 PPM. ACGIH threshold limit value (TLV): 1 PPM

EMERGENCY AND FIRST AID PROCEDURES: Inhalation: Remove victim to fresh air. Eyes: Flush with water for 10 minutes. Call a physician. Skin: Wash thoroughly with water. Ingestion: If patient is fully conscious, give large amounts of water. Obtain medical attention immediately.

WARNING: DO NOT BREATHE FUMES !

WARNING: CALIFORNIA PROPOSITION 65: This product, when used for welding, soldering, brazing, cutting and other metal working or flame processes, produces fumes, particulates, residues and other by-products which contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

SECTION VII (PRECAUTIONS FOR SAFE HANDLING AND USE/APPLICABLE CONTROL MEASURES)

Read and understand the manufacturer's instructions and the precautionary label on the product. (See American National Standard Z-49.1, "Safety in Welding and Cutting," published by the American Welding Society, P.O. Box 351040, Miami, FL 33135 and OSHA Publication 2206 (29 CFR 1910), US Government Printing Office, Washington, DC 20402 for more details on the following):

RESPIRATORY PROTECTION: Use NIOSH approved respirator.

WARNING: DO NOT BREATHE FUMES !

VENTILATION: Yes

LOCAL EXHAUST: Yes

MECHANICAL (GENERAL): Yes

PROTECTIVE GLOVES: Recommended, NIOSH approved.

EYE PROTECTION: Safety glasses/goggles.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Optional to the user's preference.

CONTINUED ON THE BACK

PROCEDURE FOR CLEANUP OF SPILLS OR LEAKS: Neutralize with soda ash or sodium bicarbonate, dilute with water and dispose in accordance with local and state EPA regulations and wash with plenty of water.

WASTE DISPOSAL: Clean up paste and flush remaining material with lots of water.

SPECIAL PRECAUTIONS: IMPORTANT. MAINTAIN EXPOSURE BELOW PEL/TLV. USE INDUSTRIAL HYGIENE MONITORING TO ENSURE THAT YOUR USE OF THIS MATERIAL DOES NOT CREATE EXPOSURES WHICH EXCEED PEL/TLV. Always use exhaust ventilation. Refer to the following sources for important additional information: ANSI Z-49.1. The American Welding Society, P.O. Box 351040, Miami FL 33135: OSHA (29 CFR 1910), US Dept. of Labor, Washington, DC 20210.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep containers away from excessive heat. Keep containers sealed except during use.