

**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-1500 FLUX**  
 Product Classification: **GENERAL PURPOSE BRAZING 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 <sup>3</sup> ) |           |
|------------|------------|-------------------------------------|-----------|
|            |            | OSHA PEL                            | ACGIH TLV |
| BORIC ACID | 10043-35-3 | 10.0                                | 10        |

**SECTION III (PHYSICAL DATA)**

|                          |               |                                       |                       |
|--------------------------|---------------|---------------------------------------|-----------------------|
| Boiling Point:           | N/A           | Specific Gravity (water = 1)          | 1.4                   |
| Vapor Pressure (mm Hg):  | N/A           | Percent volatile by volume:           | 0%                    |
| Vapor density (Air = 1): | N/A           | Evaporation rate (Butyl Acetate = 1): | 0.3                   |
| Melting Point:           | -175°C(347°F) | Solubility in water:                  | Moderate              |
| Reactivity in water:     | None          | Appearance and odor:                  | White odorless powder |

**SECTION IV (FIRE AND EXPLOSION HAZARD DATA)**

|                                    |  |
|------------------------------------|--|
| Flash Point:                       | None                                       |
| Extinguishing media:               | Not needed                                 |
| Unusual fire and explosion hazard: | None                                       |
| Special fire fighting procedures:  | Normal caution when dealing with chemicals |
| Auto ignition temperature:         | None                                       |
| Flammable limits:                  | None                                       |

**SECTION V (REACTIVITY DATA)**

|                                      |  |
|--------------------------------------|--|
| Stable                               | Hazardous polymerization will not occur. |
| Incompatibility (material to avoid): | None                                     |
| Conditions to avoid:                 | Excess heat                              |
| Hazardous decomposition products:    | Boron trioxide                           |

**SECTION VI (HEALTH HAZARD DATA)**

**Threshold Limit Value:** The ACGIH recommended general limit for welding fume NOC (Not Otherwise Classified) is 5 mg/m<sup>3</sup>. ACGIH 1984-85 preface states, "The TLV-TWA should be used as guides in the control of health hazards and should not be used as firm lines between safe and dangerous concentrations." See Section V for specific fume constituents which may modify this TLV.

**Effects of Overexposure:**

FUMES AND GASES can be dangerous to your health. Primary route of exposure is inhalation of fumes. Preexisting respiratory or allergic conditions may be aggravated in some individuals.

**▽ WARNING: DO NOT BREATHE FUMES!**

SHORT-TERM (ACUTE) OVEREXPOSURE to welding fumes may result in discomfort such as dizziness, nausea, or dryness or irritation of the nose, throat or eyes.

LONG-TERM (CHRONIC) OVEREXPOSURE may lead to siderosis (iron deposits in the lungs) and is believed by some investigators to affect pulmonary functions.

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

**SIGNS AND SYMPTOMS OF EXPOSURE:** (1) **Acute overexposure:** Nausea, vomiting, abdominal pain, mucous membrane irritation and diarrhea.

(2) **Chronic overexposure:** Skin reddening and rash, central nervous system stimulation.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** Any weakness of the lungs, kidneys or liver will be aggravated.

**HEALTH HAZARDS:** OSHA permissible exposure limit (PEL): 10 PPM. ACGIH threshold limit value (TLV) 10 PPM weakness of the lungs, kidneys or liver will be aggravated.

**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.

**AVOID CONTACT WITH SKIN AND CLOTHING.****▽ 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)**

Carefully 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):

**VENTILATION:** Use enough ventilation, local exhaust at the arc, or both, to keep the fumes and gases below the TLV's (Threshold Limit Value) in the worker's breathing zone and the general area. Train the welder to keep his head out of the fumes.

CONTINUED ON THE BACK

▽ **WARNING: DO NOT BREATHE FUMES!**

**RESPIRATORY PROTECTION:** Use NIOSH approved or equivalent respirable fume respirator or air supplies respirator when welding in confined spaces or where local exhaust or ventilation does not keep exposure below PEL/TLVs.

**EYE PROTECTION:** Wear helmet or use face shield with filter lens. As a rule of thumb, begin with shade #14. Adjust if needed by selecting the next lighter or darker shade number.

**PROCEDURE FOR CLEANUP OR SPILLS OR LEAKS:** Recyclable solid. Vacuuming is strongly recommended for accumulated dust. Conform with applicable federal, state, local, and OSHA regulatory statutes..

**WASTE DISPOSAL:** Prevent waste from contaminating surrounding environment. Discard any product, residue, disposable container or liner in an environmentally acceptable manner, in full compliance with Federal, State and Local regulations.

**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:** Store unused rods in dry place at ambient temperatures. Gloves should be worn during handling to avoid cuts, scrapes, and burns (when applicable). Clothing should be laundered after contact. Wash hands after handling. Do not smoke cigarettes while handling. Keep containers closed when not in use.

Uniweld Products, Inc. believes this data to be accurate and to reflect qualified expert opinion regarding current research. Uniweld Products, Inc. cannot make any expressed or implied warranty as to this information.