

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200. Standard must be consulted for specific requirements. Based on ANSI Z400.1-1998 Material Safety Data Sheets - Preparation. **IMPORTANT!** Read and understand this Material Safety Data Sheet and the Gasfluxer Operator's Manual before handling or using this product. The reader should consult reference works or individuals who are authorities on safety, fire prevention, ventilation, toxicology, etc. as necessary or appropriate to use and comprehend the data contained in this MSDS.

User Responsibility: The information in this Material Safety Data Sheet cannot be expected to cover all potential, individual workplace conditions. The user of the product has a responsibility to provide and maintain a safe workplace. All areas of operation should be examined to determine if, or where, safeguards - in addition to those described in this *Material Safety Data Sheet* - are required. Health hazards and safety information contained within this document should be passed on to your customers and/or employees as the case may be.

Section 1. Chemical / Product and Company Identification

Product Name : **Unibrazo Silver Brazing Paste Flux** Label Name : **Unibrazo Silver Brazing Paste Flux**
 Manufacturer : The Gasflux Company Information: (440) 365-1941 (8am - 4:30pm est M-F)
 32 Hawthorne Street Chemtrec: (800) 424-9300 (24 hours/day 7 days/week)
 P. O. Box 1170 Chemtrec International: (01) (703) 527-3887
 Elyria, Ohio 44036 U.S.A. Replaces MSDS Dated June 01, 2010

Section 2. Composition Information on Ingredients

INGREDIENT NAME	CAS#	WEIGHT % (APPROX.)
Potassium Fluoride	7789-23-3	15-25%
Potassium BiFluoride	7789-29-9	10-20%
Boric Acid	10043-35-3	45%
Water & Wetting Agent		REMAINDER

Section 3. Hazards Identification

EMERGENCY OVERVIEW:
 Danger! May be fatal if swallowed or inhaled. **Corrosive.** Affects respiratory system, heart, skeleton, circulatory system, central nervous system and kidneys. Causes irritation and burns to skin, eyes and respiratory tract. Irritation and burn effects may be delayed. Harmful if absorbed through skin.

Potential Health Effects

- Inhalation:** May cause irritation and burns to the respiratory tract, symptoms may include coughing, sore throat, and labored breathing. May be absorbed through inhalation of fumes; systems may parallel those from ingestion exposure. Irritation and burning effects may not appear immediately.
- Eye contact:** Causes irritation. May be extremely irritating with possible burns to eye tissue and permanent eye damage may result.
- Skin contact:** Causes severe irritation and possibly burns to the skin. May be absorbed through the skin. Effects may not appear immediately..
- Ingestion:** May cause salivation, nausea, vomiting, diarrhea, and abdominal pain, followed by weakness, tremors, shallow respiration, convulsions, and comma. May cause brain and kidney damage. Death may be caused by respiratory paralysis. Affects heart and circulatory system.
- Chronic:** Chronic exposure may cause mottling of teeth and bone damage (osteosclerosis) and fluorosis. Symptoms of fluorosis include brittle bones, weight loss, anemia, calcified alignments, general ill health and joint stiffness. Medical conditions generally aggravated by exposure : May aggravate existing respiratory and/or skin ailments.

Important! This section covers the materials from which the product is manufactured. Reasonably expected fumes and gases produced during the brazing process are covered in Section 8 - Exposure Controls / Personal Protection (when brazing).

Section 4. First Aid Measures

- Inhalation:** Remove victim to fresh air. Administer oxygen or artificial respiration only on physician's recommendation. Seek medical attention.
- Eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Seek medical attention.
- Skin contact:** Copiously flush skin with plenty of water for several minutes.
- Ingestion:** If swallowed induce vomiting. Seek medical attention immediately.

Important! Always contact physician or poison center in case of medical emergency. Treatment may vary with condition of victim and specifics of incident.

Section 11. Toxicological Information

Acute Toxicity Data:

Potassium BiFluoride	Potassium Fluoride	Boric Acid
Oral LD50 (rat)	Oral LD50 (rat)	Oral LD50 (rat)
245 mg/kg	245 mg/kg	2660 mg/kg

Carcinogenicity: The component chemicals of this product have **not** been classified as a carcinogen by IARC, NTP, OSHA or ACGIH.

Eye Effects: Chronic eye exposure effects for this product are not known.

Skin Effects: Chronic dermal exposure effects for this product are not known.

Mutagenicity: N/D

Section 12. Ecological Information

Eco toxicity: N/D

Environmental Fate: N/D

Section 13. Disposal Considerations

Raw material and/or empty containers may require special disposal considerations, depending on local controls. Contact reliable, licensed chemical waste disposal firm. Disposal regulations vary from state to state. Disposal must be made in accordance with applicable regulations. State and local regulations may be more stringent than federal controls. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listings.

Section 14. Transportation Information

D.O.T. Information: Shipping Name: Corrosive Solid, N.O.S. (Contains Potassium Fluoride and Potassium Bifluoride)
Hazard Class: 8 UN Number: 1759 Packing Group: II
Required Labels: Corrosive 1996 North American ERG Book No. 128

Section 15. Regulatory Information

Ozone Depleting Chemicals : No regulated ingredients

SARA Title III Section 311/312 Hazard Categories:

Health Hazard (yes) / Sudden Release of Pressure Hazard (no) / Acute Health Hazard (yes) / Chronic Health Hazard (yes) / Reactivity Hazard (no)

NFPA:

Health : 3

Fire : 0

Reactivity : 0

Section 16. Other Information

American Welding Society (AWS) Specification

Class	Form	Filler Metal	Typical Ingredients	Application	Activity Temp. Range	Recommended Base Metals
FB3-A	Paste	Bag and BCuP	Borates and Fluorides	General purpose flux for most ferrous and non-ferrous alloys.	1050-1600°F 565-870°C	All brazeable ferrous and non-ferrous metal except those with aluminum or magnesium as a constituent. Also used to braze carbides

WHMIS: This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the CPR.

Publications for Reference:

American Conference of Governmental Industrial Hygienists (ACGIH), 1998 Threshold Limit Values For Chemical Substances And Physical Agents / Biological Exposure Indices © Copyright 1998

American National Standards (ANSI) ANSI Z400.1-1998 Material Safety Data Sheets - Preparation © Copyright 1998

American Welding Society, ANSI/AWS A5.31-92 An American National Standard - Specification For Fluxes For Brazing And Braze Welding © Copyright 1992

American Welding Society, ANSI/ASC Z49.1-88 Safety in Welding and Cutting © Copyright 1988

American Welding Society, ANSI/AWS F2.2-89 Lens Shade Selector © Copyright 1989

BOCA National Fire Prevention Code/1993 © Copyright 1993

Code of Federal Regulations, Title 29, CFR - Labor (part 1910 § 1910.1000 To End) revised July 1, 1998

Code of Federal Regulations, Title 49, CFR - Transportation (Section 172.101) revised July 1, 1998

Labelmaster on behalf of the United Nations, Transport Of Dangerous Goods 10th Revised Edition © Copyright 1997

J.J. Keller & Associates, Inc., Hazardous Materials 181: The Guide For Shippers, Handlers & Transporters © Copyright 1992 - 1998

J.J. Keller & Associates, Inc., 1910 OSHA Guide - Plant Safety Regulations & Index © Copyright 1989 through 1998

NFPA Fire Protection Guide to Hazardous Materials, 12th edition © Copyright 1997

U.S. Department of Health & Human Services, NIOSH Pocket Guide to Chemical Hazards © Copyright 1997

U.S. Department Of Transportation, 1996 North American Emergency Response Guidebook DOT (RSPA P 5800.7) © Copyright 1996

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