

**MATERIAL SAFETY DATA SHEET**

MAY BE USED TO COMPLY WITH OSHA'S HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200 AND SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) OF 1986 PUBLIC LAW 99-499. STANDARD SHOULD BE CONSULTED FOR SPECIFIC REQUIREMENTS.

**SECTION I (IDENTIFICATION)**

**MANUFACTURER/  
SUPPLIERS NAME:** MESSER – MG Welding Products  
N94 W14355 Garwin Mace Drive  
Menomonee Falls, WI 53051 USA

**TELEPHONE NUMBER:**  
262-532-4677

**PRODUCT NAME:** MG 130 Paste Flux (Formerly MG 810)

**PRODUCT CLASSIFICATION:** 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 in Section V. The term "Hazardous" in "Hazardous Ingredients" should not only be interpreted as a term required and defined in OSHA Hazard Communication Standard (29 CFR Part 1910.1200), but also as defined by other regulatory agencies. The chemicals or compounds subject to reporting under Title III, in Section 313, of the Superfund Amendments and Reauthorization Act (SARA) are marked by the symbol #.

**WARNING:** This product contains or produces a chemical known to the State of California to cause birth defects (or other reproductive harm) and cancer. (California Health & Safety Code 25249.5 et seq.)

<u>INGREDIENTS</u>	<u>CAS</u>	<u>Exposure Limit (mg/m<sup>3</sup>)</u>		<u>Percent Ingredients (by weight)</u>
	<u>NUMBER</u>	<u>OSHA PEL</u>	<u>ACGIH-TLV</u>	
Boric Acid	10043-35-3	10	Not listed	50 – 60
Anhydrous Borax	1303-96-4	10	1	15 – 25
Water	7732-18-5	Not listed	Not listed	10 – 30
Kaolin	1332-58-7	10	2	0.1 – 1
Silica	14808-60-7	**	0.05	0.1 – 1

\*\* 10 mg/m<sup>3</sup> / (% SiO<sub>2</sub> + 2)

**SECTION III (PHYSICAL DATA)**

White Powder, no characteristic odor.

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

Nonflammable - Brazing flames can ignite combustibles. Refer to American National Standard Z49.1 for fire prevention during welding/brazing. Rating under National Fire Production 704: Health, 1; Flammability, 0; Reactivity, 0.

**SECTION V (REACTIVITY DATA)**

Brazing fumes cannot be classified simply. The composition and quantity of both are dependent upon the metal being welded, the process, procedure, and the filler material used. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: coatings on the metal being soldering (such as paint, plating, or galvanizing), the number of welders and the volume of the work area, the quality and the amount of ventilation, position of the welder's head with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning and degreasing activities).

When the material is consumed, the fume and gas decomposition products generated are different in percent and form from the ingredients listed in Section II. Fume and decomposition products, not the ingredients in the flux, are important. Decomposition products include those originating Section II, plus those from the base metal and coating, etc., as noted above. These components are virtually always present as complex oxides and not as metals (Characterization of Arc Welding Fume: American Welding Society).

**Monitor fume levels.** One recommended way to determine the composition and quantity of fumes and gases to which workers are exposed is to take an air sample inside the workers' face shield, if worn, or in the worker's breathing zone. Gaseous reaction products may include carbon monoxide and carbon dioxide. Ozone and nitrogen oxides may also be formed by radiation from the arc. One recommended way to determine the composition and quantity of fumes and gas 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, F1.2, F1.3, F1.4, and F1.5, available from the "American Welding Society," 550 N.W. LeJeune Road, Miami, FL 33126).

---

**SECTION VI (HEALTH HAZARD DATA)**

**Threshold Limit Value:** The **ACGIH** recommended general limit for welding fume NOS (not otherwise specified) is 5 mg/m<sup>3</sup>. The **ACGIH 1999** 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 that may modify the **TLV**.

**EFFECTS OF OVEREXPOSURE** - Electric arc welding may create one or more of the following health hazards:

**FUMES AND GASES** can be dangerous to your health.

**PRIMARY ROUTES OF ENTRY** are the respiratory system. Other possible routes are eyes, ingestion, and/or skin contact.

**PREEXISTING** respiratory or allergic conditions may be aggravated in some individuals (i.e. asthma, emphysema).

**Effects of Over Exposure:**

**FUMES AND GASES** can be dangerous to your health. **PRIMARY ROUTES OF ENTRY** are the respiratory system, eyes, and/or skin. **PREEXISTING** respiratory or allergic conditions may be aggravated in some individuals. **SHORT TERM (ACUTE) OVEREXPOSURE** to fumes may result in discomfort such as dizziness, nausea, or dryness or irritation of nose, throat, or eyes. **CHRONIC OVEREXPOSURE** requires the use of a dust mask.

**EMERGENCY & FIRST AID PROCEDURES:** Call for medical aid. Employ first aid techniques recommended by The American Red Cross.

**INHALATION:** Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, begin artificial respiration. If no detectable pulse, begin Cardiopulmonary Resuscitation. (CPR). Call for medical aid.

**SKIN:** Wash affected area with soap and water. If rash develops, see a physician.

**EYES:** Flush with a large amount of fresh water for at least 15 minutes. Get medical attention.

**INGESTION:** Seek medical attention.

**CARCINOGENICITY**

**SILICON DIOXIDE** - is listed as being carcinogenic to humans on **IARC** and **NTP** lists, and is listed by **NIOSH** as being a potential occupational carcinogen (with no further categorization).

**WELDING FUMES** (not otherwise specified) are considered to be carcinogenic defined with no further categorization by **NIOSH** and **IARC**.

---

**SECTION VII (STORAGE, HANDLING AND SPECIAL PRECAUTIONS)**

**Read and understand the manufacturer's instructions and precautionary label on this product.**

See American National Standard Z49.1, Safety in Welding and Cutting, published by the "American Welding Society," 550 N.W. LeJeune Road, Miami, FL 33126 and OSHA Publication 2206 (29CFR 1910), U.S. Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954 for more detail on the following:

**Ventilation:** Use enough ventilation, local exhaust at the arc, or both, to keep the fumes and gases below the **TLV's** in the workers breathing zone and the general area. Train the welder to keep his head out of the fumes. Maintain air flow away from user to exhaust all dusts and fumes, so that the **TLV** is never exceeded.

**Respiratory Protection:** Use respirable fume respirator or air supplied respirator when soldering in confined space or where local exhaust or ventilation does not keep exposure below **TLV**.

**Eye Protection:** Wear helmet or face shield and chemical safety goggles.

**Protective Clothing:** Wear head, hand, and body protection which help to prevent injury from flux. See ANSI Z49.1. At a minimum, this includes chemical impervious gloves and a protective face shield and may include arm protectors, aprons, hats, shoulder protection as any other equipment used in soldering operations as to prevent any contact.

**Waste:** Dispose of any grinding dust and waste residues in accordance with all federal, state, and local regulations. If material is spilled or released, contain spillage, absorb, sweep up, dispose. Flush area with water to a chemical sewer. Wash thoroughly after handling to remove all residue.

**Storage:** Keep material sealed before use. Store at ambient temperature.

**SUPPLEMENTAL INFORMATION**

IARC: International Agency for the Research on Cancer  
ACGIH: American Conference of Governmental Industrial Hygienists  
NIOSH: National Institute for Occupational Safety and Health  
NTP: National Toxicology Program  
PEL: Permissible Exposure Limit  
OSHA: U.S. Occupational Safety and Health Administration  
OSHA TLV: Threshold Limit Value  
CAS: Chemical Abstracts Service Registry Number

Exposure limits are subject to change. Contact ACGIH, OSHA, NIOSH, and IARC for current values.

130PF

---

The information in this MSDS was obtained from sources we believe are reliable. However, this information is provided without any representation or warranty, expressed or implied, regarding accuracy or correctness. The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons we do not assume responsibility and expressly disclaim liability or loss, damage, or expense arising from it or in any way connected with the handling, storage, use, or disposal of the product.