

# Material Safety Data Sheet

## Section 1 Product and Company Identification

**Product Name:** MBO Alugel Flux Paste

**Revision #:** 2.4 **Date Prepared:** July 3, 1993 **Date Revised:** June 18, 2007

**Supplier/Importer:**

**MBO (UK) Limited**

**Mill End - Standon - Ware - Herts - UK  
SG11 1LR**

Tel: +44(0)1920 823999

Fax: +44(0)1920 823631

**Chemical Formula:** Mixture

**CAS No.:** Not Applicable. **Derivation:** Not Applicable.

**Synonyms:** Not Applicable.

**General Use:** Flux for soldering aluminum with soft solders.

## Section 2 Composition/Information on Ingredients

<u>Ingredient</u>	<u>CAS No.</u>	<u>%</u>
Stannous Chloride <sup>3,4,6</sup>	7772-99-8	15
Zinc Chloride <sup>3,4,5,6</sup>	7646-85-7	10
ACGIH (fume): TWA = 1 mg/m <sup>3</sup> ; STEL = 2 mg/m <sup>3</sup>		
OSHA (fume): TWA = 1 mg/m <sup>3</sup>		
EPA: CERCLA RQ = 1000 lbs.		
Clean Water Act Section 311 Hazardous Substance		
Fluorides, (as F) <sup>5</sup>	16984-48-8	10
ACGIH: TWA = 2.5 mg/m <sup>3</sup>		
SARA: Health Assessment Rank = 240		
SDWA: MCL = 4.0 mg/l; MCLC = 4 mg/l		

(For Section 2 footnotes: See Section 15)

## Section 3 Hazards Identification

**EMERGENCY OVERVIEW:** DANGER: Harmful if swallowed. Causes severe burns. Avoid physical contact with eyes, mucous membranes and skin. CONTAINS ORGANIC FLUORIDES AND ZINC CHLORIDES. Do not take internally. Soldering may produce fumes and gases. Use adequate ventilation. ANTIDOTES: Internal - Give soluble calcium in any form: milk, lime water, calcium gluconate solution or calcium lactate solution. External - Wash with water. Eyes: Flush with water. Call physician immediately. KEEP OUT OF REACH OF CHILDREN.

**POTENTIAL HEALTH EFFECTS:**

**Primary Exposure Routes:** Eyes, Skin, Ingestion, Inhalation

**Acute Effects**

**Eyes:** Causes severe burns. May cause blindness.

**Skin:** Contact may cause severe irritation, especially on abraded skin.



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## Section 7 Handling and Storage

**Handling Precautions:** Handle as toxic substance. Use recommended personal protective equipment (see Section 8). Wash thoroughly after handling.

**Storage Requirements:** Store in a cool, dry area.

## Section 8 Exposure Controls/Personal Protection

**Eye/Face Protection:** Chemical safety goggles and full face shield.

**Skin Protection:** Rubber gloves. Change contaminated clothing. Wash after use.

**Respiratory Protection:** NIOSH approved dust or mist respirator.

**Other Personal Protective Equipment:** Eye wash and safety shower.

**Engineering Controls:** Normal room ventilation. Local exhaust in confined areas.

**Administrative Controls:** Users of this product must be properly trained and qualified in its use.

**Other Information:** Not Applicable.

## Section 9 Physical and Chemical Properties

**Appearance/Physical State:** Honey colored viscous liquid.

**Odor:** Ammonia-like.

**Odor Threshold (ppm):** Not Determined.

**Specific Gravity (H<sub>2</sub>O = 1):** 1.33 (11.03 lbs./gal.)

**Solubility in Water:** Soluble.

**Coefficient of Water/Oil Solubility:** >>1

**pH:** 8

**Melting Point:** Not Determined.

**Boiling Point:** >200°F/93°C

**Vapor Pressure (mm Hg at 20°C):** Not Applicable.

**Vapor Density (Air = 1):** Not Applicable.

**Evaporation Rate (n-BuAc=1):** Not Applicable.

**V.O.C.:** 0%(w/w), 0%(v/v), 0 lbs./gal.(U.S.), 0 kg/l

## Section 10 Stability and Reactivity

**Chemical Stability:** Stable.

**Hazardous Polymerization:** Will not occur.

**Conditions to Avoid:** None Known.

**Chemicals to Avoid:** Strong oxidizers, sodium nitrite, nitrosating agents.

**Hazardous Decomposition Products (non-thermal):** Not determined.

## Section 11 Toxicological Information

**Sensitization to Product:** Not Applicable.

**Irritancy of Product:** Skin, Eyes, Respiratory tract.

**Reproductive Toxicity:** Not Applicable.

**Teratogenicity:** Not Applicable.

**Mutagenicity:** Not Applicable.

Toxicological information regarding individual ingredients, if applicable, may be found in Section 2.

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## Section 12 Ecological Information

Not Determined.

## Section 13 Disposal Considerations

Dispose of in accordance with applicable federal, state, and local regulations.

## Section 14 Transport Information

**U.S. D.O.T.**

**Proper Shipping Name:** Consumer Commodity

**Hazard Class or Division:** ORM-D

**I.D. Number:** Not Applicable.

**Australian Code for the Transport of Dangerous Goods**

**Dangerous Goods Class and Subsidiary Risk:** Not Determined.

## Section 15 Regulatory Information

**Footnotes for Section 2:**

- 1 Subject to the reporting requirements of SARA Title III, Section 313.
- 2 Appears on the California Safe Drinking Water and Toxic Enforcement Act Substances List.
- 3 Appears on the Massachusetts Substances List.
- 4 Appears on the New Jersey Right-To-Know Hazardous Substances List.
- 5 Appears on the Pennsylvania Hazardous Substances List.
- 6 Appears on the Canadian WHMIS Ingredient Disclosure List.

### U.S.A.

**OSHA Hazard Status:** This product is considered to be hazardous as defined by the U.S. OSHA HCS (29 CFR 1910.1200).

**EPA SARA sec. 311/312 Hazard Categories:** Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard.

**Toxic Substances Control Act (TSCA):** All ingredients contained in this product are listed on the U.S. EPA TSCA Chemical Substance Inventory.

**HMIS Rating:** Health 3, Flammability 1, Reactivity 0

**NFPA Rating:** Health 3, Flammability 1, Reactivity 0

### CANADA

**WHMIS Status:** This product is considered to be hazardous as defined by Canadian WHMIS Controlled Products Regulations.

**WHMIS Rating:** D-1B, D-2B.

**WHMIS Risk Phrases:** DANGER: Harmful if swallowed. Causes severe burns. CONTAINS ORGANIC FLUORIDES AND ZINC CHLORIDES. Do not take internally. KEEP OUT OF REACH OF CHILDREN.

**WHMIS Precautionary Statements:** Avoid physical contact with eyes, mucous membranes and skin. Do not take internally.

**Domestic Substances List (DSL):** All ingredients contained in this product are listed on the Canadian EPA (CEPA) Domestic Substances List (DSL).

### E.U.

**European Inventory of Existing Chemical Substances (EINECS):** All ingredients contained in this product are listed on the European Inventory of Existing Chemical Substances (EINECS).

**CHIP 2 Categories of Danger (England):** Toxic (T).

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AUSTRALIA

**Worksafe Australia Status:** This product is classified as hazardous according to criteria of Worksafe Australia.

**HAZCHEM Code (Australia):** Not Determined.

**Poisons Schedule Number (Australia):** Not Determined.

Further regulatory information regarding individual ingredients, if applicable, may be found in Section 2.

This product has been classified in accordance with the hazard criteria of the U.S. OSHA Hazard Communication Standard, the Canadian WHMIS Controlled Products Regulations, and the Australian NMRCWHS. This MSDS contains the information required by the above regulations and conforms to ANSI Z400.1-1993.

**Section 16**

**Other Information**

**MSDS Prepared By:** Director of Chemical Safety

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