

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Ticon Welding Flux
Product Number: 61618
CAS Number: Blend

Company Identification

Ticonium Co., Div. of CMP Industries LLC
413 North Pearl St
Albany, NY 12207-1311 USA
(518)-434-3147 (For product information)
(800)-424-9300 (For emergencies)
1-800-424-9300 or 1-202-483-7616 (CHEMTREC)

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Amount</u>	<u>CAS Number</u>
BORIC ACID	50.0 - 60.0 %	10043-35-3
BORATE	20.0 - 30.0 %	14213-97-9
FLUORIDE SALT	10.0 - 20.0 %	16984-48-8

(See Section 8 for exposure guidelines)

(See Section 15 for regulatory information)

HAZARDS DISCLOSURE

This product contains hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

As defined under Sara 311 and 312, this product contains materials that are acute hazards.



3. HAZARDS IDENTIFICATION

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***** EMERGENCY OVERVIEW *****
*
* CAUTION
*
* Avoid eye contact. Avoid inhalation.
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*****
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NFPA Rating - **Health:**
 Flammability:
 Reactivity:
Special Hazard: N/A

POTENTIAL HEALTH EFFECTS

EYE:

May cause irritation.

SKIN:

May cause skin irritation.

INHALATION:

Breathing dust may irritate nose & throat.

INGESTION:

Dusts may cause nausea & vomiting.

SIGNS AND SYMPTOMS OF EXPOSURE:

Eye irritation, mucous membrane irritation, respiratory irritation, dry skin, weakness, wakefulness, nausea, abdominal pain, vomiting & diarrhea (these symptoms apply to the inhalation or ingestion of material in powder form).

REPRODUCTIVE HAZARDS:

None.

CARCINOGENICITY INFORMATION:

No known cancer hazards.

MEDICAL CONDITIONS AGRAVATED BY EXPOSURE:

Not determined.

MISCELLANEOUS:

Boric acid is a human poison by ingestion & possibly other routes. may cause burning of eyes or skin. Harmful if swallowed or absorbed through damaged skin.



4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

Flush eye with cold water for 15 minutes.

SKIN CONTACT FIRST AID:

Immediately wash skin with plenty of cold water and thoroughly wash with mild soap.

INHALATION FIRST AID:

If breathing is difficult, remove to fresh air and provide oxygen. Seek medical attention.

INGESTION FIRST AID:

Ingestion is not considered a potential route of exposure.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

COC Flash Point: N/A
Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR

LEL: N/A
UEL: N/A

FLAMMABLE PROPERTIES:

Not Flammable under normal conditions.

EXTINGUISHING MEDIA:

None.

FIRE & EXPLOSION HAZARDS:

None, several ingredients are fire retardents.

FIRE FIGHTING INSTRUCTIONS:

Decomposes in fire, liberating hydrogen fluoride and potassium oxide.
wear self-contained breathing apparatus.

COMBUSTION PRODUCTS:

Hydrogen fluoride and Potassium oxide.

6. ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL):

Wear appropriate personal protective equipment.



(section 6 continued)

LARGE SPILLS PROCEDURE:

Use a method that will not create dust (wet sweeping or vacuuming). Wear a dust mask during this process.

SMALL SPILLS PROCEDURE:

Same as large spill.

7. HANDLING AND STORAGE

HANDLING (PERSONNEL):

Use care in handling/storage. Wash hands thoroughly after handling. Wear sufficient clothing to protect skin (especially under the fingernail) from contamination.

HANDLING (PHYSICAL ASPECTS):

Store in a cool dry area.

STORAGE PRECAUTIONS:

Store in closed containers away from heat.

MISCELLANEOUS:

When heated, this flux gives off fumes which may irritate the skin, nose and throat. Avoid contact of flux with eyes and skin. Do not yake internally.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

If user operations generate dust, fume, or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

EYE / FACE PROTECTION REQUIREMENTS:

Chemical goggles are recommended to avoid contact with eyes.

SKIN PROTECTION REQUIREMENTS:

Wear neoprene gloves to minimize skin contamination. Wash hands thoroughly after handling.

RESPIRATORY PROTECTION REQUIREMENTS:

Wear approved respirator if dust or fumes exceed expsoure limits.



(section 8 continued)

EXPOSURE GUIDELINES:

BORIC ACID

OSHA PEL: 5 mg/m³
OSHA TWA: 10 mg/m³

FLUORIDE SALT

OSHA TWA: 2.5 mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Powder
COLOR: White
ODOR: No odor
SOLUBILITY IN WATER ...: Soluable
SPECIFIC GRAVITY: Boric acid: 1.51; borate: 1.95; fluoride: 2.37 (Water

10. STABILITY AND REACTIVITY

STABILITY:

Stable.

POLYMERIZATION:

Product will not undergo polymerization.

INCOMPATIBILITY WITH OTHER MATERIALS:

Avoid contact with acetic anhydride and elemental potassium.

DECOMPOSITION:

Decomposition occurs when heated and produces hydrogen fluoride and potassium oxide.

11. TOXICOLOGICAL INFORMATION

BORIC ACID

Test Code: Oral LD50
Species: Rat
Results: 4090 mg/kg

FLUORIDE SALT

Test Code: Acute Dermal Exposure
Description: Fluorine effects
Results: 15 mg/3 days produced mild irritation



12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Neutralize with lime. soluable in water, do not pour down drain.
Dispose in landfill according to federal , state and local regulations.

14. TRANSPORTATION INFORMATION

PRODUCT LABEL: Ticon Welding Flux
D.O.T. SHIPPING NAME: N/A
TECHNICAL SHIPPING NAME ...: N/A
D.O.T. HAZARD CLASS: N/A
UN NUMBER: N/A

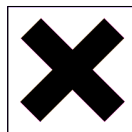
15. REGULATORY INFORMATION

REGULATORY LISTS SEARCHED:

01 = SARA 313	02 = CA Proposition 65
03 = SARA 302/304	04 = CERCLA 302.4
05 = ACGIH TWA	06 = ACGIH STEL
07 = ACGIH CALC TLV	08 = OSHA PEL
09 = CANADIAN WHMIS	10 = OSHA Ceiling

EEC Symbols and Indications of Danger:

Irritant (Xi)



R-Phrases:

R36/38 - Irritating to eyes and skin.

S-Phrases:

S3 - Keep in a cool place.

WHMIS Hazard Symbols:

None

Canadian Disclosure List

BORIC ACID (10043-35-3)



16. OTHER INFORMATION

PREPARED BY: Ylvonne Thomas
APPROVED BY: Abdul Khan
TITLE: Q. C. Manager
APPROVAL DATE: October 3, 2002
SUPERCEDES DATE ...: August 14, 1997
RTN NUMBER: 00000073 (Official Copy)

ABBREVIATIONS USED IN THIS MSDS:

TLV - THRESHOLD LIMIT VALUE	TWA - Time Weighted Average
STEL - SHORT TERM EXPOSURE LIMIT	TPQ - Threshold Planning Quantity
RQ - REPORTABLE QUANTITY	PEL - Permissible Exposure Limit
C - CEILING LIMIT	CAS - Chemical Abstract Service Number
NDA - NO DATA AVAILABLE	N/A - Not Applicable or Not Available

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END OF MSDS

