

Revision date 27-Jul-2018

Revision Number 1

1. IDENTIFICATION

Product identification

Product identifier Cronatron™ F40 Silver Brazing Flux

Other means of identification CW1078

Recommended use Flux

Restrictions on use For industrial use only

Supplier

Corporate Headquarters:
Cronatron, A Lawson Brand
Lawson Products, Inc.
8770 W.Bryn Mawr Ave.- Suite 900
Chicago, IL 60631
1-866-529-7664

Canadian Distribution Center:
Lawson Canada
7315 Rapistan Court
Mississauga, ON L5N 5Z4
(800) 323-5922

24 Hour Emergency Phone Number (888) 426-4851 (Prosar)

2. HAZARD(S) IDENTIFICATION

Hazard Classification This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3

Symbol



Signal word WARNING

Hazard statements

H319 - Causes serious eye irritation
H315 - Causes skin irritation
H335 - May cause respiratory irritation
H361 - Suspected of damaging fertility or the unborn child

Precautionary statements**Prevention**

P202 - Do not handle until all safety precautions have been read and understood
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P264 - Wash skin thoroughly after handling
P280 - Wear protective gloves/protective clothing and eye/face protection

Response**Eyes**

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention

Skin

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P332 + P313 - If skin irritation occurs: Get medical advice/attention

Inhalation

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell

Ingestion

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Storage

P405 - Store locked up

Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

Hazard(s) Not Otherwise Classified (HNOC)

None known.

Physical Hazards Not Otherwise Classified (PHNOC)

None known.

Unknown acute toxicity

None known

3. COMPOSITION/INFORMATION ON INGREDIENTS**Composition**

Mixture.

Chemical name	CAS-No	Weight %
Boric Acid	10043-35-3	30-45
Potassium Fluoroborate	12228-71-6	20-40
Potassium Tetraborate	1332-77-0	15-25

4. FIRST-AID MEASURES**Necessary first-aid measures****General Information**

Show this safety data sheet to the doctor in attendance. Call a POISON CENTER or doctor/physician. Move out of dangerous area.

Inhalation

Remove to fresh air. Consult a physician. If not breathing, give artificial respiration.

Ingestion

Rinse mouth with water. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Get medical attention immediately.

Skin contact	Wash area thoroughly with soap and water. Consult a physician.
Eye contact	Flush for 15 minutes or until irritation subsides. If easy to do, remove contact lenses. Consult a physician.
Most important symptoms (acute)	Not available.
Most important symptoms (over-exposure)	Not available.
Indication of any immediate medical attention and special treatment needed	Not available.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Dry chemical. Foam. Carbon dioxide (CO ₂). Water spray.
Unsuitable extinguishing media	Not available.
Specific hazards	Not available.
Special protective equipment for fire-fighters	Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Use personal protection recommended in Section 8. Prevent further leakage or spillage if safe to do so. Avoid dust formation. Avoid breathing dust/fume/gas/mist/vapors/spray. Ensure adequate ventilation. Evacuate personnel to safe areas.
Methods and materials for containment and cleaning up	Avoid dust generation. Take up mechanically and collect in suitable container for disposal. Sweep up product. Shovel into suitable container for disposal. Hard surfaces may be mopped with water.

7. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Ensure adequate ventilation.
Conditions for safe storage, including any incompatibilities	Store in plastic containers. Keep containers tightly closed in a cool, well-ventilated place. Do not store in glass or porcelain containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name	OSHA PEL (TWA)	ACGIH OEL (TWA)	NIOSH - TWA
Boric Acid	-	6 mg/m ³ STEL 2 mg/m ³ TWA	-
Potassium Fluorohydroborate	-	-	-
Potassium Tetraborate	-	6 mg/m ³ STEL 2 mg/m ³ TWA	-

Appropriate engineering controls

Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures, such as personal protective equipment**Eye protection**

ANSI approved safety goggles are recommended to prevent accidental eye contact.

Skin and body protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear protective nitrile rubber gloves. Wash contaminated clothing before reuse. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Use a properly fitted, air-purifying or supplied air respirator complying with a approved standard if a risk assessment indicates this is necessary.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Canadian Province Occupational Exposure Limits

Chemical name	Alberta OEL	British Columbia OEL	Manitoba OEL	New Brunswick - OEL	Newfoundland and Labrador - OEL	Nova Scotia - OEL	Ontario OEL	Prince Edward Island - OEL	Quebec OEL	Saskatchewan - OEL
Boric Acid	-	6 mg/m ³ STEL 2 mg/m ³ TWA 2 mg/m ³ TWA	2 mg/m ³ TWA 6 mg/m ³ STEL	-	6 mg/m ³ STEL 2 mg/m ³ TWA 2 mg/m ³ TWA	6 mg/m ³ STEL 2 mg/m ³ TWA	6 mg/m ³ STEL 2 mg/m ³ TWA	6 mg/m ³ STEL 2 mg/m ³ TWA 2 mg/m ³ TWA	-	6 mg/m ³ STEL 2 mg/m ³ TWA
Potassium Fluorohydroborate	-	-	-	-	-	-	-	-	-	-
Potassium Tetraborate	-	6 mg/m ³ STEL 2 mg/m ³ TWA	2 mg/m ³ TWA 6 mg/m ³ STEL	-	6 mg/m ³ STEL 2 mg/m ³ TWA	6 mg/m ³ STEL 2 mg/m ³ TWA	-	6 mg/m ³ STEL 2 mg/m ³ TWA	-	-

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Paste
Color	White
Odor	Not available
Odor threshold	Not applicable
pH	8.12 @ 20 TO 25 degrees Celsius
Melting point/range °C	500 °C
Melting point/range °F	932 °F
Boiling point/range °C	Not available
Boiling point/range °F	Not available

Flash point °C / °F	Not available
Flash point method used	Not available
Evaporation rate	Not available
Flammability (Solid, Gas)	Not available
Lower explosion limit	Not available
Upper explosion limit	Not available
Vapor pressure	Not available
Vapor density	Not available
Relative density	1.6
Solubility	completely soluble in water
Partition coefficient (n-octanol/water)	Not available
Autoignition temperature °C	Not available
Autoignition temperature °F	Not available
Decomposition temperature °C	Not available
Decomposition temperature °F	Not available
Viscosity	Not available

10. STABILITY AND REACTIVITY

Reactivity	Not available.
Chemical stability	Stable.
Possibility of hazardous reactions	Not available.
Conditions to avoid	Metals. Keep from excessive heat.
Incompatible materials	Oxidizing agents. Potassium. acid anhydrides.
Hazardous decomposition products	Not available.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	Inhalation. Ingestion. Eyes. Dermal.
Symptoms	Not available.
Delayed and immediate effects as well as chronic effects from	Not available.

short and long-term exposure

Numerical measures of toxicity

Chemical name	Inhalation LC50:	Dermal LD50:	Oral LD50:
Boric Acid	> 0.16 mg/L (Rat) 4 h	> 2000 mg/kg (Rabbit) >= 2000 mg/kg (Rabbit)	= 2660 mg/kg (Rat) = 3765 mg/kg (Rat)
Potassium Fluorohydroborate	-	-	-
Potassium Tetraborate	-	-	-

ATEmix (dermal) Not available

ATEmix (oral) Not available

ATEmix (inhalation-gas) Not available

ATEmix (inhalation-vapor) Not available

ATEmix (inhalation-dust/mist) Not available

Carcinogenicity

Chemical name	ACGIH OEL - Carcinogens	IARC	OSHA RTK Carcinogens	NTP
Boric Acid	A4	Group 2A	Listed	-
Potassium Fluorohydroborate	-	-	-	-
Potassium Tetraborate	A4	-	-	-

Canadian Province
carcinogenicity limits

Chemical name	Alberta - Carcinogen	British Columbia - Carcinogen	Manitoba - Carcinogen	New Brunswick - Carcinogen	Nova Scotia - Carcinogen	Quebec - Carcinogen
Boric Acid	-	-	ACGIH A4	-	ACGIH A4	-
Potassium Fluorohydroborate	-	-	-	-	-	-
Potassium Tetraborate	-	-	ACGIH A4	-	ACGIH A4	-

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish
Boric Acid	-	1020: 72 h Carassius auratus mg/L LC50 flow-through
Potassium Fluorohydroborate	-	-
Potassium Tetraborate	-	-

Persistence and degradability Not available.

Bioaccumulation

Chemical name	CAS-No	Partition coefficient (log Kow)
Boric Acid 10043-35-3	10043-35-3	-0.757 25 °C
Potassium Fluorohydroborate 12228-71-6	12228-71-6	-
Potassium Tetraborate 1332-77-0	1332-77-0	-

Mobility in soil Not available.

Other adverse effects An environmental hazard cannot be excluded in the event of unprofessional handling or disposal

13. DISPOSAL CONSIDERATIONS

Disposal information Dispose of via licensed waste disposal contractor. Discard container or liner in accordance with federal, state, and local regulations.

Contaminated packaging Dispose in accordance with local, state and federal regulations.

14. TRANSPORTATION INFORMATION

Shipping Descriptions

DOT

Proper shipping name Not regulated

TDG

Proper shipping name Not regulated

IATA

Proper shipping name Not regulated

IMDG/IMO

Proper shipping name Not regulated

Marine Pollutants

Chemical name	CAS-No	USDOT Marine Pollutant	Canada TDG Marine Pollutant	IMDG Marine Pollutant
Boric Acid	10043-35-3	-	-	-
Potassium Fluorohydroborate	12228-71-6	-	-	-
Potassium Tetraborate	1332-77-0	-	-	-

Special Precautions

Multi-modal shipping descriptions are provided for informational purposes and do not consider container size. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

15. REGULATORY INFORMATION

State regulations

U.S. state Right-to-Know regulations

Chemical name	CAS-No	Massachusetts - RTK	New Jersey - RTK	Pennsylvania - RTK
Boric Acid	10043-35-3	-	X	-
Potassium Fluorohydroborate	12228-71-6	-	-	-
Potassium Tetraborate	1332-77-0	-	X	-

California Prop. 65

Chemical name	CAS-No	California Prop. 65
Boric Acid	10043-35-3	-
Potassium Fluorohydroborate	12228-71-6	-
Potassium Tetraborate	1332-77-0	-

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. Federal Regulations

US EPA SARA 313

Chemical name	CAS-No	CERCLA/SARA Hazardous Substances RQ	SARA 313 - Threshold Values
Boric Acid	10043-35-3	-	-
Potassium Fluorohydroborate	12228-71-6	-	-
Potassium Tetraborate	1332-77-0	-	-

US EPA SARA 311/312 hazardous categorization

Not applicable

International inventories

All components of this product are listed on the following inventories: U.S.A. (TSCA 8(b)), Canada (DSL/NDSL) or are exempt.

Chemical name	DSL/NDSL	Inventory - United States - Section 8(b) Inventory (TSCA)	U.S. - TSCA (Toxic Substances Control Act) - Section 12(b) - Export Notification
Boric Acid	X	X	-
Potassium Fluorohydroborate	-	-	-
Potassium Tetraborate	X	X	-

Legend X - Listed

16. OTHER INFORMATION

NFPA

Health

Not available

Flammability	Not available
Instability	Not available

HMIS

Health	Not available
Flammability	Not available
Physical hazards	Not available

Notice: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA).

Prepared by	Regulatory Affairs
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Revision note**Key to abbreviations**

ACGIH (American Conference of Governmental Industrial Hygienists)
ATE (Average Toxicity Estimate)
DSL/NDL (Domestic Substance List/Non-Domestic Substance List)
HMIS (Hazardous Materials Identification System)
IARC (International Agency for Research on Cancer)
IATA (International Air Transport Association)
IMDG/IMO (International Maritime Dangerous Goods/International Maritime Organization)
NFPA (National Fire Protection Association)
NTP (National Toxicology Program)
OEL (Occupational Exposure Level)
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
PEL (Permissible Exposure Limit)
TSCA (Toxic Substances Control Act)
USEPA (United States Environmental Protection Agency)

Disclaimer

The information accumulated herein is believed to be accurate, but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

End of Safety Data Sheet