Bellman-Melcor, LLC

Safety Data Sheet

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Supplier:
Bellman-Melcor, LLC
7575 183rd Street
Tinley Park, IL 60477
Telephone: 800-367-6024
www.bellmanmelcor.com

Emergency Phone Number:
Chemtrec: Within USA and Canada: 800-424-9300
Chemtrec: Outside USA and Canada: 703-741-5970

Product: **Silver ChannelFlux A38T, A56T**
Product Use: Alloys for brazing and other metallurgical processes

SECTION 2: HAZARDS IDENTIFICATION

Classification (s):

Acute Toxicity, Oral: Hazard Category 4; Specific Target Organ Toxicity, Single Exposure: Hazard Category 3
Skin Corrosion: Hazard Category 1C
Severe Eye Damage: Hazard Category 1
Reproductive Toxicity: Hazard Category 2

Label Symbol(s): Health Hazard, Exclamation Point, Corrosive

Label Signal Word(s): Danger, Warning

Label Hazard Statement(s):
Harmful if swallowed.
Causes severe skin burns and eye damage.
Suspected of damaging fertility or the unborn child.
May cause respiratory irritation.

Label Precautionary Statement(s):

Avoid breathing dust or fume.
Use only outdoors or in a well ventilated area.
Do not handle until all safety precautions have been read and understood.
Obtain special instructions before using.
Wear protective gloves, protective clothing, and eye/face protection.
Wash hands thoroughly after handling. Store locked up.
Do not eat, drink, or smoke when using this product.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF SWALLOWED: Rinse mouth. Do not induce vomiting. Call a doctor or poison control if you feel unwell.

IF ON SKIN: Take off immediately all contaminated clothing before reuse.

IF IN EYES: Rinse cautiously with water for at least 15 mins. Remove contact lenses, if easy to do so. Continue rinsing. Immediately call a doctor or poison control center.
Dispose of contents and container in accordance with applicable regulations.
The acute toxicities of 5-80% of the products ingredients are unknown.

SECTION 3: Composition/Information on Ingredients

Ingredient Name	CAS Number	%	Impurities
Copper	7440-50-8	3-45	none known
Silver	7440-22-4	20-81	none known
Tin	7440-31-5	<1-30	none known
Zinc	7440-66-6	1-35	none known
Potassium Bifluoride	7789-29-9	1-5	none known
Potassium Fluoborate	14075-53-7	1-7	none known
Boric Acid	10043-35-3	1-7	none known
Potassium Tetraborate	1332-77-0	1-5	none known
Boron	7440-42-8	1-3	none known
Aliphatic Polycarbonate	----------	1-5	none known

SECTION 4: FIRST AID MEASURES

Eye: Immediately flush with water for at least 15 minutes. Seek medical assistance if necessary.

Skin: Immediately wash with soap and large amounts of water for at least 5 minutes. Seek medical attention if necessary. Launder or dry clean clothing before reuse.

Inhalation: If signs and symptoms of toxicity are observed, remove subject from area, administer oxygen, and seek medical attention. Keep the subject warm and at rest. Perform artificial respiration if breathing has stopped.

Ingestion: Do not induce vomiting. Give 3-4 glasses of milk or water. If unconscious or convulsive, seek immediate medical attention. Do not give anything by mouth to an unconscious or convulsing person.

Note to Physician: Depending upon the dose, ingestion of the component potassium bifluoride may be harmful or toxic. Treat fluoride intoxication symptomatically. No components are readily absorbed through the skin, although skin injury may occur from prolonged contact.

SECTION 5: FIRE-FIGHTING MEASURES

Fire and Explosion Hazards: This product is non-flammable and non-explosive. If present in a fire or explosion, it may emit fumes from its constituent metals or their oxides. Potential decomposition byproducts include boron oxide, potassium oxide, and/or fluorides.

Fire Fighting Instructions: If fighting a fire in which this product is present, wear a self-contained breathing apparatus with full face piece operated in pressure-demand or other positive pressure mode.

Extinguishing Media: Use a dry chemical. Do not use water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Methods and Materials: If a finely-divided form of product is spilled, clean up spillage so as to minimize dispersion of dust. Either wet sweeping or vacuuming using HEPA filtration is recommended.

Personal Precautions: Avoid contact with skin, eyes, and mucus membranes. Wear appropriate protective equipment during cleanup.

Environmental Precautions: Prevent spills from entering sewers or contaminating soil.

SECTION 7: HANDLING AND STORAGE

Handling Procedures: No special handling procedures are required.

Work and Hygiene Practices: To prevent ingestion following use of the product, wash hands and face before eating, drinking, applying cosmetics, or using tobacco. Remove contaminated clothing or protective equipment before entering eating/drinking areas.

Storage Precautions: Do not store in proximity to incompatible materials (see Section #10).

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTIONS

Ingredients – Exposure Limits

Copper
ACGIH TLVs: 0.2 mg/m3 TWA (fume); 1 mg/m3 TWA (dusts and mists)
OSHA PELs: .1 mg/m3 TWA (fume); 1 mg/m3 TWA (dusts and mists)

Silver
ACGIH TLV: 0.1 mg/m3 TWA (metal)
OSHA PEL: .01 mg/m3 TWA

Tin
ACGIH TLV: 2 mg/m3 TWA (metal)
OSHA PEL: 2 mg/m3 TWA

Zinc
ACGIH TLVs: (as ZnO): 2 mg/m3 TWA; 10 mg/m3 STEL (respirable fractions)
OSHA PEL: 5 mg/m3 TWA (as respirable fraction of ZnO dust or fume)

Potassium Biflouride
ACGIH TLV: 2.5 mg/m3 TWA (as F)
OSHA PEL: 2.5 mg/m3 TWA (as F)

Potassium Fluoborate
ACGIH TLV: 2.5 mg/m3 TWA (as F)
OSHA PEL: 2.5 mg/m3 TWA (as F)

Boric Acid
ACGIH TLV: none established
OSHA PEL: none established

Potassium Tetraborate
ACGIH TLV: none established
OSHA PEL: none established

Boron
ACGIH TLV: none established
OSHA PEL: none established

Aliphatic Polycarbonate
ACGIH TLV: none established
OSHA PEL: none established

Ingredients – Biological Limits

Copper
No ACIGH BEI(s) or other biological limits

Silver
No ACIGH BEI(s) or other biological limits

Zinc
No ACIGH BEI(s) or other biological limits

Tin
No ACIGH BEI(s) or other biological limits

Potassium Biflouride
ACIGH BEI(s) for fluoride in urine: 2 mg/1. prior to shift; 3 mg/1. End of shift

Potassium Fluoborate
ACIGH BEI(s) for fluoride in urine: 2 mg/1. prior to shift; 3 mg/1. End of shift

Boric Acid
No ACIGH BEI(s) or other biological limits

Potassium Tetraborate
No ACIGH BEI(s) or other biological limits

Boron
No ACIGH BEI(s) or other biological limits

Aliphatic Polycarbonate
No ACIGH BEI(s) or other biological limits

Engineering Controls
Use dilution or local exhaust ventilation adequate to maintain concentrations of all components and their byproducts to within their applicable standards.

Eye/Face Protection
Wear eye protection adequate to prevent eye contact with the product and injury if the product is used with a flame. Plastic frame spectacles with side shields.

Skin Protection
Wear protective gloves and clothing to prevent skin injuries if the product is used with a flame. Avoid flammable fabrics.

Respiratory Protection
If an exposure level to a component(s) exceeds an applicable standard, use a NIOSH approved respirator have a configuration (face piece, filter media, assigned protection factor, etc.) effective for the concentration of the component(s) generated. For guidance on selection and use of respirators, consult American National Standard Z88.2 (ANSI, New York, NY 10036, USA).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Silver wire with brown flux coating
Odor: Slight
Boiling Point: Not Determined
Specific Gravity (H2O=1): 8.5 to 9.6
Melting Point (F): Metal: 1220-1305 Flux 600-1050
Vapor Pressure (mm Hg): N/A
Vapor Density (Air=1): N/A
Evaporation Rate: N/A
% Solubility in Water: Metal: Negligible, Flux: 100%
pH: 7 to 8 SU

10. STABILITY AND REACTIVITY

Reactivity: none reasonably foreseeable
Stability: Generally considered stable
Hazardous Polymerization: Will not occur
Risk of Dangerous Reactions: Silver and copper can form unstable acetylides in contact with acetylene gas.

Incompatible Materials: Acetylene, ammonia, nitric acid, halogens, ethylene imine, ethylene oxide, chlorine trifluoride, sulfuric acid, peroxides, peroxyformic acid, hydrazine mononitrate, hydrazoic acid, hydrogen sulfide, bromates, chlorates, iodates of alkali and alkali earth metals, hydroxylamine, selenium, tellurium, carbon disulfide, and cupric nitrate.

Hazardous Decomposition Products: Toxic metal oxides are emitted when heated above the melting point. The amount of fume evolved increases as the temperature rises Thermal decomposition may produce oxides of carbon, boron, hydrogen fluoride and potassium.

11. TOXICOLOGICAL INFORMATION

Ingredient Name	CAS Number	%WT	LD50	LC50
Copper	7440-50-8	20-40	3.5 mg/kg interperitoneal mouse	Not Available
Silver	7440-22-4	30-60	Not Available	Not Available
Tin	7440-31-5	<1-30	Not Available	Not Available
Zinc	7440-66-6	1-35	7950 mg/kg oral mouse	2500 mg/kg mouse
Potassium Bifluoride	7789-29-9	1-5	Not Available	Not Available
Potassium Fluoborate	14075-53-7	1-7	Not Available	Not Available

Boric Acid	10043-35-3	1-7	7950 mg/kg oral mouse	9600 ug/m3/4 hr rat
Potassium Tetraborate	1332-77-0	1-5	Not Available	Not Available
Boron	7440-42-8	1-3	2000 mg/kg oral mouse	Not Available
Aliphatic Polycarbonate	----------	1-5	Not Available	Not Available

NOTE: See sections 3, 8 and 12 for additional information

12. Ecological Information - This section is not required and therefore not provided.

13. Disposal Considerations - This section is not required and therefore not provided.

14. Transport Information - This section is not required and therefore not provided.

15. Regulatory Information - This section is not required and therefore not provided.

16. Other Information

Revision Number: 2
Preparation Information: Jan 10 2017
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