MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 PRODUCT NAME

Snowcap Solder Syringe 8839

NFPA HAZARD RATINGE

Fire:	Significant
Health:	Insignificant
Reactivity:	Significant
Special:	Insignificant

1.2 MANUFACTURED FOR

Freedom Alloys
P.O. Box 1378
Cypress, TX 77410-1478
Phone: 281-807-0757

1.3 EMERGENCY TELEPHONE NUMBER Chem-Tel, Inc. 800-255-3924

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2. HAZARDOUS INGREDIENTS

INGREDIENT	CAS NUMBER	OSHA PEL mg/m^3	ACGIH-TLV mg/m^3	%
Zinc Chloride	7646-85-7	1.0	1.0	1-10
Lithium Fluoride	7440-50-8	2.50	2.50	1-10
Potassium Chloride	1314-13-2	None Established	None Established	10-20
Lithium Chloride	7440-31-5	None Established	None Established	5-10
Sodium Chloride	11113-50-1	None Established	None Established	10-20
Aluminum	1332-77-0	None Established	10.0	30-40
Silicon	7789-23-3	5.0	10.0	3-8
Distillates (petroleum), hydrotreated light	14075-53-7	None Established	None Established	30-40

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3. PHYSICAL DATA

BOILING POINT:	176ºF	SPECIFIC GRAVITY:	No data available
VAPOR PRESSURE:	No data available	PERCENT VOLATILE:	No data available
VAPOR DENSITY:	No data available	EVAPAORATION RATE:	No data available
SOLUBILITY H2O:	Soluble	MELTING POINT:	1080ºF
APPEARANCE:	Pink Paste		

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4. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	390ºF ASTM D-93
AUTO IGNITION TEMP:	Unknown
FIRE FIGHTING PROCEDURES	Wear self-contained breathing apparatus and protective clothing
FLAMMABLE LIMITS	Unknown
UNUSUAL HAZARDS	None
EXTINGUISHING MEDIA	CO_2, Dry Chemical, Foam

5. REACTIVITY DATA

STABILITY:	Stable
HAZARDOUS POLYMERIZATION:	Will not occur
INCOMPATIBILITY:	Strong acids and alkalis
CONDITIONS TO AVOID:	Excessive heat during storage
DECOMPOSITION BYPRODUCTS:	Fluoride fumes or gas

6. SAFE HANDLING AND USE

SPILLS:	Control source of spill. Scrape paste up using a putty knife or suitable blade. Residues can be removed with water, mineral spirits or similar solvents.
DISPOSAL:	Disposal of waste may be subject to federal, state and local regulations.
STORAGE:	Maintain at or below normal room temperature.
OTHER:	Refer to ANSI Z49.1: "Safety in Cutting and Welding" for safety guidelines.

7. HEALTH HAZARD DATA

ROUTE OF ENTRY:	INHALATION:	Yes
	SKIN:	Yes
	INGESTION:	Yes

CARCINOGENICITY: This product does not contain any products that are known carcinogens.

SIGNS AND SYMPTOMS OF EXPOSURE:

Zinc Chloride: Causes burns. Fumes, dust or mist may cause injury to the respiratory tract. Severe exposure may cause lung damage. Corrosive to the eyes and skin. Toxic effects include corrosion of mucosal surfaces, liver effects, and kidney effects, lower respiratory irritation with pulmonary edema

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Effects of overexposure may include: eye irritation with discomfort, tearing or blurring of vision; skin irritation with discomfort or rash; or irritation of the upper respiratory passages. Higher exposure may lead to: skin burns or ulceration; eye irritation with discomfort, tearing or blurring of vision; temporary lung irritation with cough, discomfort, difficulty breathing, or shortness of breath; possibly modest initial symptoms, followed in hours by severe shortness of breath requiring medical attention; or fatality from gross overexposure by fume inhalation or significant ingestion.

Lithium Fluoride May be toxic if ingested. Exposure to inorganic fluoride may cause kidney injury, stomach bleeding, abdominal pain, diarrhea, shortness of breath, difficulty in speaking, thirst, weakness of pulse, disturbed color vision, muscular weakness, convulsions, loss of consciousness and coma. Fluoride dust may cause irritation to the eyes, skin and respiratory tract. Chronic overexposure to fluoride may result in digestive disturbances, damage to the teeth, and abnormal hardening of the bones and other bone changes. High doses of fluoride have been reported to cause birth defects and embryo death in animals. The lithium ion

	can cause kidney damage, gastrointestinal disturbances, fatigue, dehydration, weight loss, dermatological effects and thyroid disturbances.
Potassium Chloride	Inhalation of high concentrations of dust may cause nasal or lung irritation. Ingestion of large quantities can produce gastrointestinal irritation and vomiting. May produce weakness and circulatory problems. Contact with skin may cause irritation or rash, particularly if skin is moist. Potassium chloride is an eye irritant. Redness, tearing, possible abrasions can occur. Persons with impaired kidney functions may be more susceptible to the effects of the substance.
Lithium Chloride	Vomiting, diarrhea, and ataxia may occur with acute exposure. Central nervous system effects include slurred speech, blurred vision, dizziness, sensory loss, convulsions and stupor. Chronic exposure may lead to neuromuscular effects as tremor, ataxia, weakness, clonus and hyperactive reflexes. The lithium ion can cause kidney damage, gastrointestinal disturbances, fatigue, dehydration, weight loss, dermatological effects and thyroid disturbances.
Sodium Chloride	Not anticipated to be a health hazard.
Distillates (petroleum), hydrotreated light:	High vapor concentrations (greater than approximately 700ppm) are irritating to the eyes and the respiratory tract, and may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death. Prolonged or repeated contact with skin tends to remove skin oils, possibly leading to irritation and dermatitis; however, based on human experience and available toxicological data, this product is judged to be neither a “corrosive” nor an “irritant” by OSHA criteria.
Aluminum Silicon	Contact with eyes may cause irritation and abrasion. Eye contact with hot material may cause severe burns. no effects from skin contact with ambient temperature material have been reported. Skin contact with hot material may cause severe burns. Excessive inhalation of powder or fumes, above the OSHA PEL, may cause irritation of the mucus membranes and upper respiratory tract or metal fume fever. Ingestion of powder may cause a burning in the mouth and throat, vomiting and diarrhea. Chronic ingestion may cause kidney and liver damage.

8. CONTROL MEASURES

In confined spaces or areas of insufficient ventilation, use a NIOSH approved airline respirator, hose mask or self-contained breathing apparatus. Local exhaust should produce an airflow of 100 lineal ft/min. Heat protective gloves, safety goggles or full face shield are recommended during use. Avoid flammable fabrics. An eye bath and safety shower should be located in the work area. Wash hands before eating, drinking or smoking. These activities should not be permitted in the workplace or while handling product.

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