

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 PRODUCT NAME

Sterling Solder Syringe 8833

NFPA HAZARD RATINGE

Fire: Moderate
 Health: Moderate
 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

2. HAZARDOUS INGREDIENTS

INGREDIENT	CAS NUMBER	OSHA PEL	ACGIH-TLV	OTHER LIMITS
Boric Acid	10043-35-3	None Established	None Established	None Known
Potassium Bifluoride	7789-29-2	2.50 mg/m ³	2.50 mg/m ³	None Known
Potassium Fluoroborate	14075-53-7	2.50 mg/m ³	2.50 mg/m ³	None Known
Isoparrifinic Hydrocarbons	None Established	None Established	None Established	2300 mg/m ³
Copper	7440-50-8	1.00 mg/m ³	1.00 mg/m ³	None Known
Phosphorous	7664-38-2	0.10 mg/m ³	0.10 mg/m ³	None Known
Tin	7440-31-5	2.00 mg/m ³	2.00 mg/m ³	None Known

This product does not contain any fluorides or halides

3. PHYSICAL DATA

BOILING POINT:	212°F	SPECIFIC GRAVITY:	No data available
VAPOR PRESSURE:	2mm @ 25°C	PERCENT VOLATILE:	No data available
VAPOR DENSITY:	Greater than 5	EVAPORATION RATE:	No data available
SOLUBILITY H2O:	Soluble	MELTING POINT:	1317°F
APPEARANCE:	Paste, no significant odor		

4. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	Unknown
AUTO IGNITION TEMP:	Unknown
FIRE FIGHTING PROCEDURES	Wear self-contained breathing apparatus and protective clothing
FLAMMABLE LIMITS	Unknown
UNUSUAL HAZARDS	None Identified
EXTINGUISHING MEDIA	CO ₂ , Dry Chemical, Foam, Water

5. REACTIVITY DATA

STABILITY:	Stable
HAZARDOUS POLYMERIZATION:	Will not occur
INCOMPATIBILITY:	Strong acids and alkalis
CONDITIONS TO AVOID:	Excessive heat during storage
DECOMPOSITION BYPRODUCTS:	Phosphorous, copper and tin fumes when overheated. Possible fluoride fumes.

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 soap and water, mineral spirits or similar solvents.
DISPOSAL:	Disposal of waste may be subject to federal, state and local regulations. Because of the precious metal content of this paste, the waste should be refined.
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:

BORIC ACID	No significant health hazards reported.
POTASSIUM BIFLUORIDE:	Dust when inhaled can be highly irritating to nose and throat. Inhalation may cause chills, labored breathing, fevers, unproductive cough. The fluoride ion may cause hypocalcemia. Inflammation and necrosis of the mucous membranes may occur. May be fatal if ingested. Symptoms may include salivation, nausea, vomiting, diarrhea and abdominal pain. Potassium ion may cause lowered blood pressure; coma, death may result. The fluoride ion can reduce serum calcium levels, possibly causing fatal hypocalcemia. Contact with dust, mist, fumes or solution may cause severe irritation, especially on abraded skin. Also, reddening and pustular dermatitis have been reported. Prolonged contact, particularly with solutions or with solid under sweaty conditions, may cause more severe burns and hypocalcemia with risk of death. Direct eye contact with dust, mist, fumes or solution may irritate strongly. Further exposure may cause burns or corneal damage.
POTASSIUM FLUOROBORATE:	Exposure to the dust or fume of fluoride salts may present significant health hazards. Fluoride salts can cause acute poisoning or death (principally by ingestion). Skin contact and exposure to mucous membranes can cause severe irritation and tissue damage. Nose bleed and slow healing scars in the nasal passage have been reported. Crippling bone changes and mottling of tooth enamel are chronic effects of exposure although they are not common among current industrial employees. Ingestion of fluoride salts can cause severe gastric pain, internal bleeding, tissue damage, and death. Acute poisoning from inhalation is not common. Nose bleeds, skin and eye irritation, tissue damage and slow healing scars can result if exposure is excessive. Fluoride salts are soluble in body fluids and

sweat and are corrosive to the skin and mucous membranes. Prolonged exposure to fluoride salts may cause damage to the skin, eye and mucous membranes.

PHOSPHOROUS:

Inhalation of phosphorous vapors can lead to respiratory tract irritation. Chronic intoxication includes gastrointestinal distress and garlic breath. A classical effect of chronic phosphorous intoxication is necrosis of the jaw.

COPPER:

Industrial exposure to copper fumes, dusts or mists results in metal fume fever with atrophic changes in nasal mucous membranes. Chronic poisoning results in Wilson's Disease, characterized by hepatic cirrhosis, brain damage, demyelination, renal disease and copper deposition in the cornea.

TIN:

Inhalation of tin oxide may lead to benign pneumoconiosis. Certain tin salts are mild irritants to the skin and mucous membranes.

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.

THE DATA IN THIS MATERIAL SAFETY DATA SHEET IS RELATED ONLY TO THE SPECIFIC MATERIAL DESIGNATED HEREIN AND DOES NOT RELATE TO USE IN COMBINATION WITH ANY OTHER MATERIAL OR IN ANY PROCESS. THE INFORMATION IS FURNISHED FREE OF CHARGE AND IS BASED ON TECHNICAL DATA WE BELIEVE TO BE RELIABLE. THIS INFORMATION IS INTENDED FOR USE BY PERSONS HAVING TECHNICAL SKILL AND AT THEIR OWN RISK AND DISCRETION. SINCE CONDITIONS OF USE ARE OUTSIDE OUR CONTROL, WE MAKE NO WARRANTIES, EXPRESSED OR IMPLIED, AND ASSUME NO LIABILITY IN CONNECTION WITH ANY USE OF THIS INFORMATION.