



# PRODUCT DATA SHEET

Current: July 1998  
Supersedes: July 1995

## ASBURY FLUXMASTER

### **#770 General Purpose Flux**

**CHARACTERISTICS:** ASBURY Flux #770 is a general purpose cleaning and drossing flux which is also used effectively as a cover flux. It promotes low metallic content in the dross and also helps keep furnace walls clean. It has good skimming properties for use in treating drosses. Flux #770 is designed for use in both crucible and reverberatory type furnaces when melt temperature is 1275-1350 °F.

### **APPLICATIONS:**

For use as a **charge cover flux**, spread about 1/4" evenly on the molten heel at the beginning of the heat. Charge metal through this cover until the melt is ready for the dross to be skimmed. Then apply a further quantity of flux over the dross. Stir or rabble the flux into the dross. Wait a few minutes and skim the dross from the furnace. Allow the skimmer to rest on the furnace sill, or remove it with a perforated spoon allowing a few seconds for the metal contained in the skim to flow back into the melt.

For use as a **drossing flux**, turn off the burners and observe the dross. Break any large lumps with the skimmer, rake the dross until even, then sprinkle about 1 lb. of flux/square yard of surface area depending on the oxide depth. Stir or rabble the flux into the dross as evenly as possible. If any large metal beads remain, additional flux is required. Add the flux, close the furnace door, turn on the burners for several minutes, and again observe for metal beads. The combination of additional flux and firing should finish the job. Dross should appear light, powdery and free of excessive metal.

**PACKAGING:** Fiber drums.....125-lb. and 500-lb

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**HEALTH HAZARD INFORMATION/EMERGENCY PROCEDURES (continued)**

**Ocular:** Proper protective equipment is recommended at all times. Safety glasses should be worn at any time there is a reasonable probability of exposure. **In the event of exposure, flush the eyes with large amounts of water, occasionally lifting the upper and lower lids. Seek medical attention as burns may not be evident or may appear later.**

**Carcinogenic References:** None of the materials used in this product have been listed as carcinogens by the suppliers. Additionally, **none of the materials have been found to be listed as carcinogens the NIOSH guide.**

**ENVIRONMENTAL PROTECTION INFORMATION**

In the event of a spill of powder or dust, clean-up should be conducted using a vacuum system with a high efficiency particulate air filtration system, a dustless system. Caution should be taken to minimize airborne generation of powder or dust and to avoid contamination of air and water.

Fluoride compounds may have significant impact on air and water quality. Airborne emissions, spills and releases to the environment (discharge to streams, sewer systems, ground water, surface soil, etc.) should be controlled immediately. If such potential for a spill or release exists, it is advisable to develop an emergency spill response plan. It is also advisable to consider monitoring ambient air as well as any effluent which may contain fluorides if potential exists for damage to aquatic or terrestrial ecosystems.

State or federal regulations may require specific labeling, packaging, storage, transportation and disposal procedures. It is recommended to contact an Environmental Engineer or consultant familiar with the applicable waste disposal regulations.

**SPECIAL PRECAUTIONS**

When working with fluoride containing salts it is advisable to wear eye protection, Niosh approved respirator, and gloves to limit exposure. Contact with the actual material should be minimized. **Always wash thoroughly prior to eating or smoking.**

This product must be handled accordingly to the size, shape and quantity of material involved. Drums may require use of hoists, cranes etc. **Store this material in a dry area. Fluoride salts should not be stored adjacent to acids. Keep away from contact with food or feed products.**

**DOT SHIPPING INFORMATION**

This material is not regulated by the DOT for land transportation. The following is the most accurate description of the material for shipping purposes:

**" SALT FLUX "**

This product may be regulated by the International Maritime Organization (IMO) and the International Air Transport Association (IATA) for vessel and air movement as a Class 6.1 poison.

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# MATERIAL SAFETY DATA SHEET

**ASBURY FLUXMASTER OF UTAH**

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EMERGENCY TELEPHONE

**800-424-9300 CHEMTREC**

Revision 1/1/00 **MSDS #50**

## PRODUCT IDENTIFICATION

Chemical name: Blended Alkali Salts

Chemical Family: Fluoride, Chloride, and Carbonated Salts

Formula: Mixture

**Trade names: #703, #707, #770, #775, #777, #778, #779, #779.5, #781, #832**

## CONSTITUENTS

<u>% of Mix</u>	<u>Name</u>	<u>CAS #</u>	<u>Niosh</u>	<u>OSHA Pel</u>	<u>ACGIH tlv</u>
5-35	<b>Sodium Fluorsilicate</b> Na <sub>2</sub> SiF <sub>6</sub>	16893-85-9	none	2.5 (F <sup>-</sup> )	2.5(F <sup>-</sup> )
0-30	<b>Sodium Carbonate</b> Na <sub>2</sub> CO <sub>3</sub>	497-19-8	n.l <sup>1</sup>	15 <sup>*</sup> ;5 <sup>**</sup>	10
30-80	<b>Sodium Chloride</b> NaCl	77647-14-5	n.l <sup>1</sup>	15 <sup>*</sup> ;5 <sup>**</sup>	10
20-60	<b>Potassium Chloride</b> KCl	7447-40-7	n.l <sup>1</sup>	15 <sup>*</sup> ;5 <sup>**</sup>	10

\* values expressed in Mg/m<sup>3</sup>

\* Total Dust,

\*\* Respirable dust

<sup>1</sup> classed as Particulates, not otherwise classified

## PHYSICAL PROPERTIES

**Freezing point:** N/A

**Vapor Pressure:** N/A

**Melting point:** approx. 932<sup>0</sup> F

**Vapor Density:** N/A

**Boiling point:** Decomposes

**Density (g/cc):** 2.679

**Sublimes:** N/A

**H<sub>2</sub>O Solubility:** >90% @ 17<sup>0</sup>

**Evaporation:** N/A

**% Volatiles:** none

**Appearance and odor:** White crystalline free flowing powder.

## EXPLOSION AND REACTIVITY DATA

**Flash Point:** none

**Flammable (explosive) Limits:** V/V%

**LEL:** none

**UEL:** none

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**EXPLOSION AND REACTIVITY DATA (continued)**

**Extinguishing Media:** This material is non-combustible. Use extinguishing media suitable for the surrounding fire.

**Special Firefighting Procedures:** If this material is involved in a fire-fighting situation, use a fullface, air-supplied, positive pressure, respiratory device to prevent exposure to hydrogen fluoride fumes of the fluoride salt.

**Unusual Fire or Explosion Hazards:** No unusual explosion hazards known.

**General Reactivity Information:** The product is a stable material.

**Incompatibility:** Contact with acid may liberate hydrogen fluoride gas which is toxic and corrosive.

**Hazardous Decomposition Products:** During melting operations and at elevated temperatures, fluoride compounds will be liberated, including, but not limited to hydrogen fluoride and potassium fluoride.

**HEALTH HAZARD INFORMATION/EMERGENCY PROCEDURES**

**General:** Exposure to dust or fumes of fluoride containing salts may present significant health hazards. Fluoride salts may cause acute poisoning and/or death (principally by ingestion). Skin contact and exposure to soft tissues or mucous membranes may result in severe irritation and/or tissue damage. Crippling bone changes and mottling of tooth enamel are reported as chronic effects of overexposure. **These effects are not common currently in industrial employees.**

**ACUTE:** Ingestion of fluoride salts can cause gastric pain, internal bleeding, tissue damage and death. Nose bleeds, skin rashes, eye irritation and slow healing scars may result if exposure is excessive. Fluoride salts are soluble in sweat and other body fluids and are corrosive to the skin and mucous membranes.

**CHRONIC** Chronic exposure may lead to calcification of the bones and ligaments, osteosclerosis. Prolonged exposure to fluoride salts may cause tissue damage.

**Inhalation:** NIOSH approved respirators are recommended if engineering controls are not feasible or unable to maintain a concentration below that specified. **If overexposed, remove victim to fresh air. Rinse mouth and nasal passages with water if the person is conscious.**

**Ingestion:** If conscious, give victim water and induce vomiting.

**Do not induce vomiting in an unconscious subject. Seek medical attention immediately. MAY BE FATAL IN SEVERE CASES.**

**Dermal:** Wear gloves if prolonged or repeated contact is expected.

**If irritation is evident, wash the contaminated area repeatedly with water and a mild soap. Always wash thoroughly after contact with fluoride salts.**

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