

# BHS Marketing

---

## Western Briquette

### MATERIAL SAFETY DATA SHEET

#### Ammonium Fluoride Solution 36 %

Date: January 31, 2001

#### I Company Identification

Company Name: BHS Marketing / Western Briquette  
Mailing Address: P.O. Box 27955 SLC, UT 84127-0955  
Physical Address: 2320 West Indiana Ave. SLC, UT 84104  
Telephone: (801) 973-8232  
Fax: (801) 973-8838  
Emergency Number: Chemtrec (800) 424-9300

#### II Product Identification

Product Name: Ammonium Fluoride Solution, Ammonium Mono-Fluoride Solution  
Molecular Formula:  $\text{NH}_4\text{F}$   
Molecular Weight: 37.04  
Composition: %:  
 $\text{NH}_4\text{F}$  36-40  
 $\text{H}_2\text{O}$  60-64  
Cas Number: 12125-01-8  
OSHA Hazard: Poison

#### III Typical Physical Properties

Physical Appearance: Clear to slightly colored liquid  
PH: 6.0-7.7  
Boiling Point: Approximately @ 220 deg. F  
Melting Point: N/A  
Specific Gravity: 1.09  
Evaporation Rate: N/A  
Vapor Density: 69.26 lbs./ft<sup>3</sup>  
Vapor Pressure: N/A  
% Volatile by volume: N/A  
Solubility in Water: Complete

00/LI

# BHS Marketing

---

## *Western Briquette*

### **IV Reactivity Data**

Chemical Stability:	Stable
Conditions to Avoid:	Temperatures above 220 deg. F will result in decomposition, releasing hydrogen fluoride and ammonia. Contact with strong acids will release hydrogen fluoride. Contact with strong alkali will release ammonia
Hazardous Decomposition Products:	Contact with strong acids or alkalis will release hydrogen fluoride and ammonia accordingly
Hazardous Polymerization:	Will not occur

### **V Fire and Explosion Hazard Data**

Flashpoint:	N/A
Extinguishing Media:	This chemical is not flammable, but for fires in area where this chemical is stored, foam, dry chemicals or CO <sub>2</sub> may be used
Special Firefighting Procedures:	Not a fire or explosion hazard, but may release toxic emissions if involved in a fire. Personnel should wear NIOSH approved self-contained breathing apparatus
Unusual Fire and Explosion Hazards:	Decomposes with heat above 220 deg. F resulting in release of hydrogen fluoride and ammonia
Autoignition Temperature:	N/A
Primary Routes of Exposure:	Eye and skin contact, inhalation, and ingestion
Effects of Overexposure:	
Acute:	Causes eye and skin irritations and burns, which may not be immediately evident
Chronic Effects:	Causes severe eye, skin and mucous membrane irritations which may not be immediately evident. Can cause fluoride poisoning

# BHS Marketing

---

## *Western Briquette*

### **VI Recommended First Aid Measures**

Eye Exposure:	Flush eyes with large amounts of water, lifting the upper and lower lids at periodic intervals to insure contact of water with all accessible tissue of the eyes and lids. Do NOT use zephirin chloride solution in eyes. Medical attention should be given as soon as possible, preferably an eye specialist
Skin Exposure:	Promptly wash the contaminated skin using soap or mild detergent and water. If chemical, or solution containing chemical, soaks through clothing, remove the clothing promptly and wash the skin using soap or mild detergent and water. Medical attention should be given as soon as possible for all burns, regardless of how minor they seem
Inhalation Exposure:	Remove exposed person to an uncontaminated area immediately. Oxygen should be provided for a person having difficulty breathing (but only administered by an authorized individual) until the person is able to breath easily by themselves. A physician should be contacted immediately
Ingestion Exposure:	Very harmful, can cause fluoride poisoning. If conscious, give the exposed person large quantities of water immediately. Do NOT induce vomiting. Several glasses of milk may be given for its soothing effect. A physician should be contacted immediately
Medical conditions possible aggravated by exposure:	Pre-existing respiratory diseases including asthma and emphysema
Toxic Data:	LD50 <500 mg/kg (Oral - rat)

### **VII Fire Fighting Measures**

Evacuation Procedure & Safety:	Keep unnecessary people away. Stay upwind, keep out of low areas. Isolate hazard area and deny entry. Ventilate closed spaces before entering them. Wear appropriate NIOSH approved protective clothing and breathing
--------------------------------	---

# BHS Marketing

## *Western Briquette*

---

### **VII Fire Fighting Measures-Continued**

	apparatus to avoid contact with skin, eyes or mucous membranes. We recommend that the user establish a spill prevention, control and countermeasure plan. This plan should include procedures for proper storage as well as containment and clean-up of spills and leaks. The procedures should conform to safe practices and provide for proper recovery and disposal in accordance with federal, state and local regulation
Containment of Spills:	Small Spills: Employees should be trained in safety procedures for storage and handling this product. Any personnel in area should wear a NIOSH approved protective clothing and breathing apparatus. Isolate product spill area. Neutralize with alkaline material. Carefully collect spilled material. Remove container from spill site and dispose of in accordance with federal, state and local regulations. Large Spills: Employees should be trained in safety procedures for storage and handling this product. Any personnel in area should wear a NIOSH approved protective clothing and breathing apparatus. Isolate product spill area. Carefully shovel material and place in clean, dry container and cover. Remove container from spill site and dispose of in accordance with federal, state and local regulations
Waste Disposal:	Disposer must comply with federal, state and local disposal or discharge laws

### **VIII Handling & Storage**

Handling:	Wear body protection as necessary to prevent skin contact. Wear chemical goggles and rubber or neoprene gloves. Keep away from food and feed products. Keep storage containers closed. Wash thoroughly after handling
-----------	---

# BHS Marketing

---

## *Western Briquette*

### **IX Transportation Requirements**

DOT Proper Shipping Name:	Ammonium Fluoride Solution
DOT Hazard Class:	6.1 (Poison)
Identification Number:	UN 2505
Placarding Requirement:	Keep away from food
Packing Group:	III
Subsidiary Hazard Class:	6.1
EPA Hazardous Substance:	Yes
IMDG Placarding Requirement:	Toxic
RCRA Status of Unused Material if Discarded:	N/A
Hazardous Waste Number:	N/A
Reportable Quantity:	100 lbs.

### **X Exposure Controls/ Personal Protection**

Appropriate Hygienic Practices: As part of good industrial, personal hygiene and safety procedure, avoid all unnecessary exposure to the product and ensure prompt removal from eyes, skin and clothing. Maintain good housekeeping to control dust accumulations.

#### **Personal Protection Equipment**

Eye Protection: Chemical goggles

Skin Protection: Full face shield, rubber or neoprene gloves. Body protection as necessary to prevent skin contact. Wash thoroughly after handling. Keep away from food and feed products

Respiratory Protection: None for normal use. Use self-contained breathing apparatus when product is exposed to temperatures above 220 deg. F, or severe exposure conditions such as tank cleaning

Ventilation Protection: Provide adequate general and/or local exhaust to maintain vapors below acceptable air level maximums

Other Precautions: Do not get on skin, clothing, or in eyes. Wash off with water. Do not take internally. Keep separated from strong

# BHS Marketing

---

## *Western Briquette*

### **X Exposure Controls/ Personal Protection-Continued**

acids and alkalis

### **XI Additional Information**

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its accuracy and/or completeness. User should consult with experts in their review of this MSDS prior to use of the product.

The conditions or methods of handling, storage, use and disposal are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use or disposal of the product.

\*n/a= Not Applicable