

# MATERIAL SAFETY DATA SHEET

## Part # BF4IS01

### Section I: General Information

Product Name: Fluoroborate ISA, 2M (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>  
Manufacturer's Name: Van London pHoenix Company  
Distributed By: Van London pHoenix Company  
Address: 6103 Glenmont Dr. Houston, Texas 77081  
Phone: 713/772-6641 Fax: 713/772-4671

Chemical Name: Ammonium sulfate in water  
Chemical Family: Salt solution  
DOT Shipping Info: None  
IATA Shipping Info: None

### Section II: Ingredients

CAS No.	%	Chemical Name	LD50 (mg/kg) oral-rat	OSHA/PEL ACGIH TLV
7783-20-2	26.4%	Ammonium sulfate	3000	None
7732-18-5	73.6%	Water	---	None

### Section III: Physical Data

Boiling Point: 100°C  
Specific Gravity: 1.15  
Vapor Pressure: N/A  
Freezing Point: -8°C  
Vapor Density: N/A  
pH: 4.8 – 8  
Water Solubility: Soluble  
Appearance & Odor: Colorless, odorless liquid

### Section IV: Fire & Explosion Hazard Data

Flashpoint: N/A  
Auto ignition Temperature: N/A  
Extinguishing Media: Any  
Special Fire Fighting Procedures: Self Contained Breathing Apparatus should be worn.  
Unusual Fire & Explosion Hazards: N/A

## Section V: Health Hazard Data

Effects of Overexposure:	Coughing, dyspnoea, irritation of upper respiratory tract and stomach.
Emergency & First Aid:	Wash off contact area with water or drink water if ingested.
Eyes & Skin:	Wash off with water. Irrigate eyes immediately with plenty of water, lifting the eye lids occasionally.
Ingestion/Inhalation:	Ingest large amount of water. Consult physician.

## Section VI: Reactivity Data

Stable:	Yes
Conditions to Avoid:	Heat or flame.
Incompatibility:	Oxidizers, BrF <sub>3</sub> , KClO <sub>3</sub> , hypochlorite bleaches, NH <sub>4</sub> NO <sub>3</sub> .
Hazardous Decomposition Products:	Emits toxic fumes when heated to decomposition.
Hazardous Polymerization:	Will not occur.

## Section VII: Spill or Leak Procedures

Steps to be Taken:	Vacuum up and set aside for waste disposal.
Waste Disposal Method:	Consult federal, state, and local laws for proper disposal.

## Section VIII: Special Protection Information

Respiratory Protection:	N/A
Ventilation:	N/A
Protective Gloves:	N/A
Eye Protection:	Safety goggles
Other Protective Equipment:	N/A

## Section IX: Special Precautions

Precautions to be taken in Handling & Storage:	Keep well sealed and store away from heat or oxidizers. SARA Title III: Ammonium sulfate is subject to reporting under Section 313 of this law and Section 372 of 40CFR.
Other Precautions:	No eating or drinking while working with this product. NFPA Rating (0-4): Health-1, Fire-1, Reactivity-0, Specific-0.

Issue Date: May 1, 2007

Name: Peter F. Boyle, Quality Control Manager

Signature:

A handwritten signature in cursive script that reads "Peter Boyle". The signature is written in black ink and is positioned below the printed name.