



# Biochemical Diagnostics, Inc.

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## MATERIAL SAFETY DATA SHEET

### GENERAL INFORMATION

**TRADE NAME:** Dragendorf, Solution A

**Catalog Number:** 3504140-1

Part of Kit: 3504072-2

**Chemical Name:** Solution of Bismuth Subnitrate in Acid Acid

**CAS #:** 64-19-7 (Acetic Acid), 1304-85-4 (Bismuth Subnitrate USP)

**Formula:** N/A

### INGREDIENTS

**Components:** 0.95% Bismuth Subnitrate in 30.6% Acetic Acid

**Threshold Limit Values:** N/A

### PHYSICAL DATA

**Molecular Weight:** N/A

**Boiling Point:** 107°

**Vapor Pressure:** N/A

**Vapor Density:** N/A

**Specific Gravity:** 1.020

**Percent Volatile:** N/A

**Evaporation Rate:** N/A

**Solubility H<sub>2</sub>O:** Miscible

**pH:** <2

**Appearance:** Clear/Colorless liquid

**Odor:** Vinegar

### FIRE AND EXPLOSION HAZARD DATA

**Flammable limits in air % by volume:**

**Lel:** 5.4%

**Uel:** 16.0%

**Flash Point:** 109 F

**Auto Ignition Temp:** N/A

**Extinguishing Media:** CO<sub>2</sub>, Dry Chemical Foam, Water Mist.

**Special Fire Fighting Procedures:** Wear Self-contained positive pressure breathing apparatus. Wear Acid-resistant protective suit (full face shield) with rubber boots and gloves.

**Unusual Fire and Explosion Hazards:** Emits toxic fumes under fire conditions. Contact with other material may cause fire. May accelerate combustion.

### REACTIVITY DATA

**Stability:** Stable

**Conditions to Avoid:** Heat, contact with ignition sources, diluted acid reacts with metals to produce flammable hydrogen gas.

**Materials to Avoid:** Oxidizers, strong Alkalis, Metals, Amines, Cyanides, Sulfides, Chromic Acid, Nitric Acid, Hydrogen Peroxide, Carbonates. Alkaline bicarbonates, soluble iodides, gallic acid, calomel, tannin, salicylic acid, and sulfur.

**Hazardous Polymerization:** Does not occur.

**Hazardous Decomposition:** Carbon dioxide, carbon monoxide. Decomposes to Bi<sub>2</sub>O<sub>3</sub> and nitrogen oxide when heated to red heat.

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### **ENVIRONMENTAL PROTECTION PROCEDURES**

**Spill Response:** Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate any ignition sources until area is free from explosion or fire hazard.

**Waste Disposal Method:** Comply with federal, state, and local regulations on reporting releases. We recommend spill-X neutralizer and absorbent agents for various types of spills.

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### **SPECIAL PROTECTION INFORMATION**

**Eye Protection:** Chemical safety goggles

**Skin Protection:** Impervious protective clothing should be worn to prevent skin contact, and protective gloves.

**Respiratory Protection:** Use approved chemical fume hood or government approved respirator.

**Ventilation:** Use approved fume hood or other with equivalent ventilation.

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### **SPECIAL PRECAUTIONS**

**Contaminated Equipment Precautions :**  
Neutralize and wash equipment thoroughly.

**Hygienic Handling and Storage:**  
Wash thoroughly after handling. Keep tightly closed. Keep away from combustible materials, heat, sparks, and open flame.

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### **EMERGENCY AND FIRST AID PROCEDURES :**

**Ingestion:** DO NOT induce Vomiting, May be fatal if swallowed. Get immediate medical attention.

**Inhalation:** Harmful if inhaled, may cause damage to respiratory passages and lungs, Remove to fresh air, Give artificial respiration if needed.

**Skin Contact:** Contact causes severe burns. Remove contaminated clothing. Immediately flush thoroughly with large amounts of water.

**Eye Contact:** Can cause eye damage. Immediately flush thoroughly with large amounts of water for 15 minutes, seek medical attention.

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<b>Health:</b>	2	Moderate
<b>Flammability:</b>	2	Moderate
<b>Reactivity:</b>	3	Severe
<b>Contact:</b>	2	Moderate

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**Emergency Response Telephone #:**  
**1-800-255-3924**

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