

## Material Safety Data Sheet

### **SECTION 1 – IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY**

**Product Name:** Protinol – Protein-Based Controls – 240, 280, and 320 mOsm/kg H<sub>2</sub>O  
**Product Number:** 3MA028  
**Manufacturer/Supplier:** Advanced Instruments, Inc.  
Two Technology Way  
Norwood, MA 02062  
1-781-320-9000

**Origin:** USA

**Date of Issue:** 2009-02-13

**Chemical Identification(s):** Sodium Azide, Bovine Albumin Powder, Sodium Chloride (NaCl)  
**Intended Use:** Protinol Protein-Based Controls are intended for use in evaluating the performance of your osmometer. Use these controls daily to monitor the precision of the testing procedure for osmolality.

### **SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS**

**Component:**  
Sodium Azide  
**CAS #:**  
26628-22-8  
**Synonyms:**  
Azide, Azium, Smite  
**Percent:**  
<0.1%

**Component:**  
Bovine Albumin Powder  
**CAS #:**  
9048-46-8  
**Synonyms:**  
Not available  
**Percent:**  
0.06%

**Component:**  
Sodium Chloride  
**CAS #:**  
7647-14-5  
**Synonyms:**  
Salt  
**Percent:**  
0.006% - 0.009%

### **SECTION 3 – HAZARDS IDENTIFICATION**

#### **Health**

**Routes of Entry:**

Inhalation, ingestion, or skin contact.

**Health Hazards:**

Harmful if swallowed. Irritating on contact with skin, eyes, mucous membranes, or upper respiratory tract.

**Carcinogenicity:**

Investigated as a tumorigen and mutagen.

**Symptoms of Exposure:**

Irritation to the respiratory tract and mucous membrane. Eye and skin contact may cause irritation and redness.

**Medical Conditions Aggravated by Exposure:**

None indicated

#### **SECTION 4 – FIRST AID MEASURES**

**Emergency and First Aid Procedures:**

SEEK MEDICAL ASSISTANCE IN ALL CASES OF OVEREXPOSURE.

**Eyes:**

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

**Skin:**

In case of contact, immediately wash skin with soap and copious amounts of water.

**Inhalation:**

If inhaled, remove to fresh air.

**Ingestion:**

If conscious, drink water and induce vomiting immediately as directed by medical personnel.

#### **SECTION 5 – FIRE FIGHTING MEASURES**

**Flash Point (°F):**

Not available

**Flammable Limits:**

LEL: Not available

UEL: Not available

**Extinguishing Media:**

Water spray, carbon dioxide, dry chemical powder, or appropriate foam

**Fire Fighting Procedures:**

Wear self-contained breathing apparatus and protective clothing.

**Fire and Explosion Hazards:**

Not considered to be a fire or explosion hazard.

#### **SECTION 6 – ACCIDENTAL RELEASE MEASURES**

**Spill Response:**

Wear suitable protective equipment listed under Section 8, Exposure Controls/Personal Protection. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the release and eliminate its source, if it can be done without risk. Clean up and place in closed container for proper disposal as described under, Section 13, Disposal Considerations. Comply with local, state, and country regulations on reporting releases. Refer to Section 15, Regulatory Information, for regulatory data.

#### **SECTION 7 – HANDLING AND STORAGE**

Keep container tightly closed. Do not get in eyes, on skin, or on clothing. Ensure good ventilation/exhaustion at the workplace. Prevent formation of dust. Store away from oxidizing agents. Do not store together with reducing agents, heavy metal compounds, acids and alkali.

#### **SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Ventilation, Respiratory Protection, Protective Clothing, Eye Protection:**

Adequate ventilation is required. Protective gloves must be worn to prevent skin contact (Neoprene or equivalent).

Safety glasses with side shields must be worn at all times.

**Work/Hygienic Practices:**

Wash hands thoroughly after handling. Do not take internally. Eyewash and safety equipment should be readily available.

#### **SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:**

Pale yellow liquid

**Boiling Point:**

Not available

**Specific Gravity (H<sub>2</sub>O = 1):**

Not available

**Melting Point (°C):**

Not available

**Evaporation Rate (BuAc = 1):**

Not available

**Vapor Pressure (mm Hg):**

Not available

**Vapor Density (AIR = 1):**

Not available

**Volatility:**

Not available

**Solubility in Water (%):**

Soluble

**Danger of Explosion:**

Forms very sensitive explosive metallic compounds.

**SECTION 10 – STABILITY AND REACTIVITY**

**Stability:**

Stable

**Conditions to Avoid:**

Danger of explosion: Forms very sensitive explosive metallic compounds. Product not self-igniting.

**Materials to Avoid:**

Sodium hypochlorite, calcium hypochlorite, sodium nitrite, oxidizers, acids, bases, copper, brass, bronze and other heavy metal compounds.

**Hazardous Decomposition:**

Nitrogen oxides (No<sub>x</sub>), ammonia, cyanuric acid.

**Hazardous Polymerization:**

Does not occur.

**Additional Information:**

Sodium azide is present in this product. Contact with acidic solutions and metal compounds over time may form potentially explosive metal azides. Should any of this material be introduced in a sanitary sewer system, flush with copious amount of water.

**SECTION 11 – TOXICOLOGICAL INFORMATION**

**Symptoms of Exposure:**

Irritating on contact with skin, eyes, mucous membranes, or upper respiratory tract. Harmful if swallowed.

**Medical Conditions Aggravated by Exposure:**

None indicated.

**Routes of Entry:**

Inhalation, ingestion, or skin contact.

**Carcinogenicity:**

Investigated as a tumorigen and mutagen.

**Toxicity Data:**

Oral LD50: 27 mg/kg (rat)

**Toxicological Findings:**

Harmful, irritant.

**SECTION 12 – ECOLOGICAL INFORMATION**

**Ecological effects:**

The ecological effects have not been thoroughly investigated, but currently none have been identified.

**General notes:**

Water hazard class 1 (self –assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**SECTION 13 – DISPOSAL CONSIDERATIONS**

**EPA Waste Numbers:**

Not available

**Treatment:**

Smaller quantities can be disposed of with solid waste. This product is not considered a RCRA hazardous waste.

Recommended cleansing agent: water with cleansing agents.

Specified Technology – Contact your local permitted waste disposal site (TSD) for permissible treatment sites.

ALWAYS CONTACT A PERMITTED WASTE DISPOSAL SITE (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE, AND COUNTRY REGULATIONS.

**Other:**

Abfallschlüsselnummern in Austria (ÖNORM S2100): 59305

**SECTION 14 – TRANSPORTATION INFORMATION**

**DOT Proper Shipping Name:**

Not regulated

**DOT ID Number:**

Not regulated

**SECTION 15 – REGULATORY INFORMATION**

**Hazard symbols:**

Xn Harmful

**Hazard-determining components of labeling:**

Sodium azide

**Risk phrases:**

22 Harmful by if swallowed.

**Safety phrases:**

2 Keep out of the reach of children.

13 Keep away from food, drink and animal feeding stuffs.

36 Wear suitable protective clothing.

46 If swallowed, seek medical advice immediately and show its container or label.

**Water hazard class:**

Water hazard class 1 (Self-assessment): slightly hazardous for water.

**SECTION 16 – OTHER INFORMATION**

**Comments:**

None

**NFPA Hazard Ratings:**

Health: 2

Flammability: 0

Reactivity: 0

Special Hazards: Not available

Advanced Instruments, Inc. provides the information contained herein in good faith, but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. Advanced Instruments will not be responsible for damages resulting from use of or reliance upon this information.