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## MATERIAL SAFETY DATA SHEET

PRODUCT NAME: YSI 3841 Ammonium Standard, 1 ppm as N  
CATALOG NUMBER: YSI-3841  
Date of this revision: 08/01/2011

### **1. CHEMICAL PRODUCT IDENTIFICATION**

Trade name: None  
Chemical Formula: Solution in water  
Formula CAS No: Not applicable  
Molecular Weight: Not applicable

### **2. COMPOSITION**

| Component                  | CAS#       | Approx% |
|----------------------------|------------|---------|
| Water                      | 7732-18-5  | >97.5   |
| Ammonium Chloride          | 12125-02-9 | <1      |
| Lithium Acetate, Dihydrate | 6108-17-4  | <1      |
| Sodium Azide               | 26628-22-8 | <0.01   |
| Hydrochloric Acid          | 7647-01-0  | <0.01   |

### **3. HAZARD IDENTIFICATION**

May be harmful if swallowed. Do not get in eyes, on skin or on clothing. Minimal contact, as with all chemicals, is a good policy to follow.

Remove and wash contaminated clothing before re-use.

Routes of entry: Ingestion, inhalation.

Carcinogenicity: This material is not listed (IARC, NTP, OSHA) as a cancer causing agent.

### **4. FIRST AID MEASURES**

Ingestion: If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

Inhalation: Remove to fresh air. Give artificial respiration if breathing has stopped.

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin: Immediately flush skin with plenty of water. Get medical attention if irritation develops.

### **5. FIRE FIGHTING MEASURES**

Flash Point: Not Applicable.

Flammable Limits: (LEL): Not applicable.

Flammable Limits: (UEL): Not applicable.

Fire: Wear self-contained breathing apparatus and protective clothing.

Fire Extinguishing Media: Use any suitable means for surrounding materials

Explosion Hazards: Thermal decomposition produces toxic fumes.

### **6. ACCIDENTAL RELEASE MEASURES**

Evacuate area of non-essential personnel. Eliminate ignition sources.

Scoop up material and transfer to a container for proper disposal.

Ensure compliance with Federal, State and local regulations.

### **7. HANDLING AND STORAGE**

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Avoid contact with eyes and skin.



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## **8. EXPOSURE CONTROLS**

Airborne Exposure Limits:

None established for product.

For 100% Ammonium Chloride (product contains <1%)

ACGIH Threshold Limit Value (TLV): 10 ppm (TWA)  
20 mg/cu.m (STEL)

For 100% Sodium Azide (product contains <0.01%)

OSHA Permissible Exposure Limit (PEL): 0.1 ppm, 0.3 mg/cu.m  
ACGIH Threshold Limit Value (TLV): 0.11 ppm, 0.29 mg/cu.m.

For 100% Hydrochloric Acid (product contains <0.01%)

OSHA Permissible Exposure Limit (PEL): 5 ppm, 7 mg/cu.m. (CL)  
ACGIH Threshold Limit Value (TLV): 5ppm, 7.5 mg/cu.m. (CL)

Ventilation System: In general, dilution ventilation is a satisfactory health hazard control for this material. However, if conditions of use create discomfort to a worker, a local exhaust should be considered.

Personal Respirators (NIOSH Approved): For conditions of use where exposure to mist exists, a dust/mist respirator may be worn. For emergencies, a self contained breathing apparatus may be necessary.

Skin protection: Rubber gloves and lab coat, apron or overalls.

Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

## **9. PHYSICAL CHEMICAL PROPERTIES**

Appearance: Clear, colorless liquid.

Odor: None

Solubility: Infinitely soluble in water.

Boiling Point: Essentially the same as water.

Melting Point: Essentially the same as water.

Specific Gravity: 1.0

Vapor Density (Air =1): Essentially the same as water.

Vapor Pressure (mm Hg): Essentially the same as water.

Evaporation Rate: Essentially the same as water.

## **10. STABILITY AND REACTIVITY**

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: When heated to decomposition, can emit toxic gases.

Hazardous Polymerization: This substance does not polymerize.

Incompatibilities: Extreme Heat. Reaction with hydrogen cyanide can produce explosive nitrogen trichloride.

Explosive reaction occurs with potassium chlorate or bromine trifluoride. Violent reaction occurs with bromine pentafluoride, NO<sub>3</sub> and IF<sub>7</sub>.

## **11. TOXICOLOGICAL INFORMATION**

No toxicity data for product.

For 100% Ammonium Chloride (product contains <1%):

orl-rat LD50: 1650 mg/kg

orl-dog LDLo: 600 mg/kg

For 100% Lithium Acetate (product contains <1%)

orl-mouse LD50: 5 mg/kg

Mutagenic effects cited in RTECS.



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For 100% Sodium Azide (product contains <0.01%)

orl-rat LD50: 27 mg/kg

skn-rbt LD50: 20 mg/kg

Mutagenic effects cited in RTECS.

For 100% Hydrochloric Acid (product contains <0.01%):

orl-rbt LD50: 900 mg/kg.

## **12. ECOLOGICAL INFORMATION**

None found.

## **13. DISPOSAL CONSIDERATIONS**

EPA Waste Number: None

Ensure compliance with Federal, State and local regulations.

## **14. TRANSPORT INFORMATION**

DOT Shipping Name: Not regulated.

DOT Number: None.

## **15. REGULATORY INFORMATION**

The CAS numbers of all components of this solution are listed on the TSCA Inventory.

## **16. OTHER INFORMATION**

NFPA Hazard Ratings:

|                 |            |
|-----------------|------------|
| Health          | 1          |
| Flammability    | 0          |
| Reactivity      | 0          |
| Special Hazards | None Known |

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

END OF MATERIAL SAFETY DATA SHEET