

**TEDIA****Material Safety Data Sheet**Tedia Company, Inc.  
1000 Tedia Way  
Fairfield, OH 45014 USA24 Hour Emergency Number (CHEMTREC)  
USA: 800-424-9300 • International: 703-527-3887

All non-emergency questions should be directed to Customer Service: 800-PURITY-1 for assistance

**HT Buffer Solution 2**

Date Revised: 06/06/2007

**MSDS No. M9061****1. CHEMICAL PRODUCT IDENTIFICATION**

Product Name: HT Buffer Solution 1 (0.1M n-Hexylammonium Acetate with 50% (volume) Acetonitrile)

Catalog Number(s): WB3951

Synonym(s):

Molecular Formula:

Molecular Weight:

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient	CAS No	Percent	Hazardous
n-Hexylamine	111-26-2	~ 1%	Yes
Acetonitrile	75-05-8	~50%	Yes
Acetic Acid	64-19-7	~ 0.5%	Yes
Water	7732-18-5	~ 48.5%	No

**3. HAZARDS IDENTIFICATION**

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

NFPA Hazard Ratings: Health - 2, Flammability - 3, Reactivity - 0

NOTE: NFPA ratings involve data and interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

**WARNING!** Flammable liquid and vapor. Vapor may cause flash fire.

Potential Health Effects include respiratory irritation, eye irritation, and blood damage.

Inhalation: Short term exposure may cause irritation, nausea, stomach pain, loss of voice, chest and stomach pain, wheezing, headache, symptoms of drunkenness, disorientation, suffocation, convulsions, and coma. Long term exposure may cause lung damage.

Ingestion: Same effects as for short term inhalation.

Skin Contact: Same effects as for short term inhalation.

Eye Contact: Irritation and tearing.

Chronic Exposure: No known carcinogenic effects

Aggravation of Pre-existing Conditions: No information found.

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

Seek medical assistance for any overexposure.

Inhalation: Move to fresh air. Seek medical attention..

Ingestion: Seek medical attention immediately.

Skin Contact: Wash thoroughly for 15 minutes with soap and water.

Eye Contact: Immediately flush with water for at least 15 minutes.

Antidote: Amy Nitrate by inhalation; Sodium Nitrate intravenously; Sodium Thiosulfate by infusion; oxygen

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

Unusual Fire and Explosion Hazards: Hazardous polymerization will not occur. Fire hazard. Vapor/air mixtures are heavier than air. Vapors or gas may ignite at distant ignition sources and flash back.

For 100% Acetonitrile:

Flash Point: 6<sup>o</sup>C

Lower Flammability Limit: 3%

Upper Flammability Limit: 16%

Extinguishing Media: Alcohol resistant foam, carbon dioxide, regular dry chemical or water.

Special Firefighting Procedures: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Water may be ineffective.

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

Evacuate all unnecessary personnel. Ventilate area of leak or spill. Use respirator, chemical safety goggles, rubber boots and rubber gloves. Turn off all sources of ignition. Absorb with sand or vermiculite and place in a closed container. Wash spill site with soapy water.

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

Store and handle in accordance with all current regulations and standards. Keep separate from incompatible substances. Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage, direct sunlight, and freezing. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid). Observe all warnings and precautions listed for the product.

#### **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

There are no Occupation Exposure Limits established for this solution.

Airborne Exposure Limits for 100% Acetonitrile:  
OSHA TWA: 40 ppm  
OSHA STEL: 60 ppm  
ACGIH TWA: 40 ppm  
ACGIH STEL: 60 ppm  
NIOSH recommended TWA 10 hours: 20 ppm  
UK OES TWA: 40 ppm  
UK OES STEL: 60 ppm

There are no Occupation Exposure Limits established for hexylamine.

Ventilation System: Mechanical exhaust required.

Personal Respirators: Use NIOSH/MSHA approved respirators.

Skin Protection: Wear chemical resistant gloves.

Eye Protection: Safety goggles.

Keep containers tightly closed. Avoid contact with skin, eyes, and clothing.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Colorless liquid.

Solubility: Soluble in water.

Specific Gravity: 0.98 at 20°C

pH: 7.1 to 7.5

Boiling Point: No data

## **10. STABILITY AND REACTIVITY**

Stability: Stable at normal temperatures and pressure.

Hazardous Decomposition Products: Oxides of carbon, nitrogen, and ammonia, and hydrogen cyanide gas.

Hazardous Polymerization: Will not occur.

Incompatibilities: Acids, metals, bases, oxidizing materials, combustible materials, and reducing agents.

Conditions to Avoid: Avoid heat, flame, sparks, and other sources of ignition. Keep out of water supplies and sewers.

## **11. TOXICOLOGICAL INFORMATION**

For 100% Acetonitrile only:

Carcinogen Status: Not classified as a human carcinogen.

Local Effects: Irritant by inhalation and eye

Acute Toxicity Level:

Moderately Toxic: Dermal absorption and ingestion:

Slightly Toxic: Inhalation

Target Organ: Blood

Health Effects:

Inhalation: Inhalation of 500 ppm for a short duration may cause irritation of the nose and throat.

Humans exposed to 160 ppm for 4 hours experienced delayed symptoms of slight flushing of the face and slight bronchial tightness. A burning sensation, wheezing, and laryngitis may also occur.

Skin Contact: Contact may cause irritation. Skin absorption may occur resulting systemic toxicity as detailed in inhalation above. Repeated or prolonged exposure may cause dermatitis.

Eye Contact: Vapors and liquids may cause irritation and tearing. Repeated or prolonged exposure to irritants may cause conjunctivitis.

Ingestion: Ingestion of sufficient amounts may cause systemic toxicity as detailed in inhalation above. Reproductive effects have been reported in animals

There is no toxicity data for hexylammonium acetate. Only trace amounts of Hexylamine and Acetic Acid may exist in this solution.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12. ECOLOGICAL INFORMATION

Ectotoxicity Data:

Fish Toxicity: 1g/L for 96 hours LC50 (Mortality) Fathead minnow (*Pimephales promelas*).

Invertebrate Toxicity: 0.024-0.199 µg/L for 4-72 hours (residue) Bent-nosed clam (*Macoma nasuta*)

## 13. DISPOSAL CONSIDERATIONS

Dispose with in accordance with all applicable regulations. Because it contains Acetonitrile, this product is subject to disposal regulations found in USEPA 40 CFR 262. Hazardous Waste Number: U003

## 14. TRANSPORT INFORMATION

US DOT 49 CFR 172.101:

UN Number: UN1993

Proper Shipping Name: Flammable Liquid, n.o.s. (Acetonitrile)

Hazard Class: 3

Packing Group: II

Land Transport:

Proper Shipping Name: Flammable Liquid, n.o.s. (Acetonitrile)

Item Number: 3(b)

Warning Sigh/Label: 3

Hazard ID number: 33

Air Transport:

IATA/ICAO Class: 3

Packaging Group: II

Proper Shipping Name: Flammable Liquid, n.o.s. (Acetonitrile)

Maritime Transport:

Proper Shipping Name: Flammable Liquid, n.o.s. (Acetonitrile)

IMDG Class: 3

Packing Group: II

EMS No.: 3-02

MFAG Tabel No.: 215

## 15. REGULATORY INFORMATION

TSCA Inventory Status: Yes (Acetonitrile)  
TSCA 12(b) Export Notification: Not listed.  
CERCLA Section 103 (40 CFR 302.4): Yes (Acetonitrile)  
Acetonitrile: 5000 lbs RQ  
SARA Section 302 (40 CFR 355.30): No  
SARA Section 304 (40 CFR 355.40): No  
SARA Section 313 (40 CFR 372.65): Yes (Acetonitrile)  
SARA Hazard Categories, SARA Sections 311/312 (40 CFR 370.21):  
Acute: Yes (Acetonitrile)  
Chronic: No  
Fire: No  
Reactive: No  
Sudden Release: No  
OSHA Process Safety (29 CFR 1910.120): No  
State Regulations:  
California Proposition 65: No  
Canadian Regulations: WHMIS Classification not determined  
European Regulations:  
For 100% Acetonitrile:  
EC Number: (EINECS): 200-835-2  
EC Risk and Safety Phrases:  
R11 - Highly Flammable  
R23/24/25 – Toxic by inhalation, in contact with skin, and if swallowed  
S½ - Keep locked up and out of reach of children  
S16 – Keep away from sources of ignition, no smoking  
S27 – Immediately remove contaminated clothing  
S45 – In case of accident or overexposure, seek medical attention  
Concentration Limits:  
3%>=C<20 %      Xn      R20/21/22  
German Regulations:  
For 100% Acetonitrile:  
Water Hazard Class (WGK): 2

## 16. OTHER INFORMATION

The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment.

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