



## WAVE BUFFER B MSDS

# MATERIAL SAFETY DATA SHEET

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Emergency Phone (USA): 800-424-9300 (CHEMTREC 24hr)  
Emergency Phone (UK/Europe): +44 (0)-870-190-6777 (CARECHEM24)

### **SECTION 1. CHEMICAL IDENTIFICATION**

CATALOG #: 553402  
NAME: WAVE BUFFER B

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

CAS#: 5204-74-0 TRIETHYLAMMONIUM ACETATE BUFFER  
0.1M in 25% Acetonitrile/ 75% Distilled Water  
MF:  $(\text{CH}_3\text{CH}_2)_3\text{N}.\text{CH}_3\text{COOH}$

CAS#: 75-05-8 ACETONITRILE 25%  
MF:  $\text{CH}_3\text{CN}$  MW: 41.05  
SYNONYMS: Ethanenitrile; methyl Cyanide; Cyanomethane; Ethyl Nitrile  
EC NUMBER (EINECS): 200-835-2  
EC INDEX NUMBER: 608-001-00-3 (100%)

### **SECTION 3. HAZARDS IDENTIFICATION**

LABEL PRECAUTIONARY STATEMENTS: FLAMMABLE  
LABEL PRECAUTIONARY STATEMENTS: IRRITANT  
ROUTES OF ENTRY: INHALATION, ABSORPTION AND INGESTION

DATA NOT AVAILABLE for 0.1M TEAA in 25% Acetonitrile.

FOR 0.1M TEAA in **100%** Acetonitrile:  
NFPA Ratings (SCALE 0-4): HEALTH=2 FIRE=3 REACTIVITY=0  
MAJOR HEALTH HAZARDS: Respiratory tract irritation, eye irritation and blood damage.  
PHYSICAL HAZARDS: Flammable liquid and vapor. Vapor may cause flash fire.



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### POTENTIAL HEALTH EFFECTS:

#### -INHALATION:

Short Term Exposure: Irritation, nausea, stomach pain, loss of voice, chest and stomach pain, wheezing, headache, symptoms of drunkenness,

disorientation, suffocation, convulsions and coma.

Long Term Exposure: Lung damage.

-SKIN CONTACT: Same effects reported in short term inhalation.

-EYE CONTACT: Irritation and tearing.

-INGESTION: Same effects reported in short term inhalation.

#### CARCINOGEN STATUS:

-OSHA: No.

-NTP: No.

-IARC: No.

## **SECTION 4. FIRST-AID MEASURES**

SEEK MEDICAL ASSISTANCE FOR ANY OVEREXPOSURE.

SKIN: Wash thoroughly with soap and water.

EYES: Immediately flush thoroughly with water for at least 15 minutes.

INGESTION: Contact local Poison Control Center or physician immediately. Never give anything by mouth to an unconscious person.

ANTIDOTE: Amyl Nitrite, inhalation; Sodium Nitrite, intravenous; Sodium Thiosulfate, infusion; oxygen.

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

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.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Hazardous polymerization will not occur. Fire hazard. Vapor/air mixtures are heavier than air. Vapors or gases may ignite at distant ignition sources and flash back.



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For **100%** acetonitrile:

FLASH POINT: 6°C

LOWER FLAMMABLE LIMIT: 3%

UPPER FLAMMABLE LIMIT: 16%

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

Evacuate all unnecessary personnel. Wear a 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. Notify Local Emergency Planning Committee and State Emergency Response Commission for releases greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800) 424-8802 (USA) or (202) 426-2675 (USA).

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

Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances. Store in a cool dry place.

### **SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

EXPOSURE LIMIT: No occupational exposure limits established for triethylammonium acetate, but there are limits for **100%** acetonitrile:

40ppm OSHA TWA

60ppm OSHA STEL

40ppm ACGIH TWA

60ppm ACGIH STEL

20ppm NIOSH recommended TWA 10 hours

40ppm UK OES TWA

60ppm UK OES STEL

MECHANICAL EXHAUST REQUIRED

CHEMICAL SAFETY GOGGLES.

NIOSH/MSHA-APPROVED RESPIRATOR.

SAFETY SHOWER AND EYE BATH.

COMPATIBLE CHEMICAL-RESISTANT GLOVES (RUBBER).

AVOID CONTACT WITH EYES, SKIN AND CLOTHING.

KEEP TIGHTLY CLOSED.

FLAMMABLE.

IRRITANT.



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STORE IN A COOL DRY PLACE.

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

SPECIFIC GRAVITY: 0.9700mL/g  
APPEARANCE: Colorless liquid.  
ODOR: Slightly sweet.  
BOILING POINT: No Data.  
WATER SOLUBILITY: Water Soluble.  
pH: 7.0

### **SECTION 10. STABILITY AND REACTIVITY**

REACTIVITY: Stable at normal temperatures and pressure.  
CONDITIONS TO AVOID: Avoid heat, flames, sparks and other sources of ignition. Minimize contact with material. Avoid inhalation. Keep out of water supplies and sewers.  
INCOMPATIBILITIES: Acids, metals, bases, oxidizing materials, combustible materials and reducing agents.  
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.  
DECOMPOSITION PRODUCTS: carbon dioxide, carbon monoxide and oxides of nitrogen and ammonia, and hydrogen cyanide gas.

### **SECTION 11. TOXICOLOGICAL INFORMATION**

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

FOR 100% ACETONITRILE:

CARCINOGEN STATUS: ACGIH: A4 –Not classifiable 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 500ppm for a short duration may cause irritation of the nose and throat. Humans exposed to 160ppm for 4 hours experienced delayed symptoms of slight flushing of the face and slight bronchial tightness. A burning sensation,



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wheezing and laryngitis may also occur.

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

**EYE CONTACT:** Vapors and liquid 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. Reproductive effects have been reported in animals.

### **SECTION 12. ECOLOGICAL INFORMATION**

#### **ECOTOXICITY DATA:**

**FISH TOXICITY:** 1g/L for 96 hrs LC50 (Mortality) Fathead minnow (Pimephales promelas).

**INVERTEBRATE TOXICITY:** 0.024-0.199 µg/L for 4-72 hrs (residue) Benthosed clam (Macoma nasuta).

### **SECTION 13. DISPOSAL CONSIDERATIONS**

Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number: U003. Dispose in accordance with all applicable regulations.

### **SECTION 14. TRANSPORTATION INFORMATION**

U.S. DOT 49 CFR 172.101:

UN1648

Label: ACETONITRILE

HAZARD CLASS OR DIVISION: 3

PACKING GROUP: II

LAND TRANSPORT:

Label: ACETONITRILE

ITEM NUMBER: 3(b).

WARNING SIGN/LABEL: 3

HAZARD ID NUMBER: 33

AIR TRANSPORT:

IATA/ICAO CLASS: 3

PACKAGING GROUP: II

LABEL: ACETONITRILE



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**MARITIME TRANSPORT:**

Label: ACETONITRILE  
IMDG CLASS: 3  
PACKAGING GROUP: II  
EmS No.: 3-02  
MFAG Table No.: 215

**SECTION 15. REGULATORY INFORMATION**

TSCA INVENTORY STATUS: Yes.  
TSCA 12 (b) EXPORT NOTIFICATION: Not listed.  
CERCLA SECTION 103 (40CFR302.4): Yes (Acetonitrile).  
ACETONITRILE: 5000 lbs RQ.  
SARA SECTION 302 (40CFR355.30): No.  
SARA SECTION 304 (40CFR355.40): No.  
SARA SECTION 313 (40CFR372.65): Yes (Acetonitrile).  
SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21):  
ACUTE: Yes (Acetonitrile).  
CHRONIC: No.  
FIRE: Yes.  
REACTIVE: No.  
SUDDEN RELEASE: No.  
OSHA PROCESS SAFETY (29CFR1910.119): No.  
STATE REGULATIONS:  
CALIFORNIA PROPOSITION 65: No.  
EUROPEAN REGULATIONS:  
FOR 100% TRIETHYLAMMONIUM ACETATE:  
EC NUMBER (EINECS): 225-995-0.  
FOR 100% ACETONITRILE:  
EC NUMBER (EINECS): 200-835-2.  
EC RISK AND SAFETY PHRASES:  
R 11 Highly Flammable.  
R 23/24/25 Toxic by inhalation, in contact with skin and if  
swallowed.  
S ½ Keep locked-up and out of reach of children.  
S 16 Keep away from sources of ignition –no smoking.  
S 27 Take off immediately all contaminated clothing.  
S 45 In case of accident or if you feel unwell, seek  
medical advise immediately (show the label where  
possible).



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CONCENTRATION LIMITS:

C <sub>2</sub> ≥ 20%	T	R 23//24/25
3% ≤ C <sub>2</sub> < 20%	Xn	R 20/21/22

GERMAN REGULATIONS:

FOR 100% TRIETHYLAMMONIUM ACETATE:

Water Hazard Class (WGK): 1 (Provisionally Accepted Self Classification).

Water Hazard Class (WGK): 1 (Self Classification by Manufacturers and Distributors).

FOR 100% ACETONITRILE:

Water Hazard Class (WGK): 2

**SECTION 16. OTHER INFORMATION**

The above information is believed to be correct and shall be used only as a guide. The information may be inclusive. Transgenomic, Inc. shall not be held liable for any damage resulting from handling or from contact with the above material.

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