



Material Safety Data Sheet

**AMSA DTEA II <sup>TM</sup>**  
**v. 010104**

**BIODEGRADABLE**

***USES: organic deposit removal, organic deposit inhibitor/preventer, corrosion inhibitor;***

***BENEFITS: cuts use levels of chlorine, bromine by extending lifetime of biocides while providing corrosion inhibition***

***APPLICATIONS: cooling towers, chill loops, equipment cooling, heat exchangers, tanks; for use in cooling water, industrial process waters, metal working fluids; as base stock in water treatment applications (call us for formulation assistance)***

***stewardship note: not sold, warranted, or recommended as broad spectrum biocide in USA and as such uses are regulated in the USA by the USA EPA biocide sales are restricted for non-USA markets***

***DOSAGE: 50-100 ppm product (1/2 –1 gallon per 10,000 gallons of system volume; 64 – 128 fl. oz. per 10,000 gallons);***

***frequency of dosage: 1-3 times per week;***

***contact time: 3 – 24 hours;***

***typical useage: as necessary – used with chlorine or bromine release biocides; especially effective with DBNPA biocide***

## 1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

**Product: DTEA II™**

**AMSA, INC. 1406 East Pine; Suite 129; Midland, MI 48640;  
ANTIMICROBIAL SPECIALISTS & ASSOCIATES, INC.**

[WWW.AMSAINC.COM](http://WWW.AMSAINC.COM); [AMSAINC@AMSAINC.COM](mailto:AMSAINC@AMSAINC.COM); 989 839-0377; FAX 989 839-4440

**24-Hour Emergency Phone Number: 989-839-0377**

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Proprietary aliphatic amide hydrolysates 15%  
Inerts 85%

chemical family: amide hydrolysate  
description: light amber liquid

## 3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS (See Section 11 for toxicological data.)

**EYE:** Based on similar materials, this materials may cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness.

**SKIN:** Based on similar materials, prolonged exposure may cause skin burns. A single prolonged exposure is not likely to result in the material being absorbed through the skin in harmful amounts.

May cause allergic reaction but there is no data to suggest this is indeed the case.

**INGESTION:** Based on similar materials, single dose oral toxicity is extremely low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury. Ingestion may cause gastrointestinal irritation or ulceration. Ingestion may cause burns of mouth and throat.

**INHALATION:** No specific data has been generated. Based on similar materials, excessive exposure may cause irritation to upper respiratory tract.

**SYSTEMIC (OTHER TARGET ORGAN) EFFECTS:** There is no specific data. Based on related materials, repeated oral doses of related active ingredient to laboratory animals may result in injury to gastrointestinal tract, with some mortality.

Repeated dermal application of the active ingredient which is similar to this material, fatty amines and related molecules in laboratory animals did produce any effects which may cause this material to be a potential skin sensitizer. This a property shared by many amines (amide hydrolysates), a common component in commercial formulations presently used in water treatment chemicals and metal working fluid amines.

**CANCER INFORMATION:** No data

**TERATOLOGY (BIRTH DEFECTS):** No data

**REPRODUCTIVE EFFECTS:** No data

## 4. FIRST AID

**EYE:** Immediate and continuous irrigation with flowing water for at least 30 minutes is imperative. Prompt medical consultation is essential.

**SKIN:** Wash off in flowing water or shower.

**INGESTION:** Do not induce vomiting. Give large amounts of water or milk if available, and transport patient to a medical facility. Do not give anything by mouth to an unconscious person.

**INHALATION:** Remove to fresh air if effects occur. Consult a physician.

### NOTE TO PHYSICIAN:

**No specific data has been determined but based on similar materials, the materials** May cause tissue destruction leading to stricture. If lavage is performed, suggest endotracheal and/or esophagoscopy control. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Supportive care: Treatment based on judgment of the physician in response to reactions of the patient.

## 5. FIRE FIGHTING MEASURES

**FLASH POINT:** None to 212 deg. F

**METHOD USED:** SFCC

### FLAMMABILITY LIMITS

LFL: Not applicable

UFL: Not applicable

**HAZARDOUS COMBUSTION PRODUCTS:** Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Hazardous combustion products may include but are not limited to: sulfur oxides, nitrogen oxides, carbon monoxide, carbon dioxide.

**OTHER FLAMMABILITY INFORMATION:** This material will not burn until the water has evaporated. Residue can burn.

**EXTINGUISHING MEDIA:** To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical, or foam.

**FIRE FIGHTING INSTRUCTIONS:** Keep people away. Isolate fire area and deny unnecessary entry. Contain fire run-off if possible. Review the "Accidental Release Measures" and the "Ecological Information" sections of this MSDS.

**PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots, and gloves. If protection equipment is not available or not used, fight fire from a protected location or safe distance.

## 6. ACCIDENTAL RELEASE MEASURES (See Section 15 for Regulatory Information)

**PROTECT PEOPLE:** Clear all personnel from area. Barricade area. Avoid contact with eyes and skin. May be a slipping hazard. Use appropriate safety equipment. For additional information, refer to "Exposure Controls/Personal Protection".

**PROTECT THE ENVIRONMENT:** Contain material to prevent contamination of the soil, surface water and ground water. Spills should be collected to prevent contamination of waterways.

**CLEANUP:** Contain spill if possible. Clean up with absorbent material. Collect material in suitable and properly labeled open containers. Please refer to Disposal Information, MSDS Section 13.

## 7. HANDLING AND STORAGE (special note low temperature conditions – 50 deg. F.)

**HANDLING:** Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Refer to "Exposure Controls/Personal Protection", Section 8, of the MSDS.

**STORAGE:** Keep containers tightly closed when not in use. Do not store near food, foodstuff, drugs or potable water supplies. Storage must only be in original containers. If exposed to temperatures below freezing point (40F), 50, assure product reaches 50 deg. F, 10 deg. C prior to use. Roll drum to assure adequate mixing prior to use.

please note: freezing will not harm product performance, simply bring to room temperature by storing at room temperature and allowing to warm up, it is not recommended to heat or to put a heating device into contact with the liquid product

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

**PERSONAL PROTECTIVE EQUIPMENT EYE/FACE PROTECTION:** Use chemical goggles. Eye wash fountain should be located in immediate work area.

**SKIN PROTECTION:** When prolonged or repeated contact could occur, use protective clothing impervious to this material. Selection of specific items such as gloves, boots, apron or full-body suit will depend on operation.

**RESPIRATORY PROTECTION:** When respiratory protection is required for certain operations, use an approved air-purifying respirator (organic vapors). **Respiratory protection may be required if operating conditions create an aerosol of product.**

### EXPOSURE GUIDELINES:

If end-use operation results in misting or aerosols and cannot be controlled, an organic vapor Respirator, in combination with gloves and goggles is recommended.

**Exposure guidelines have not been set.**

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE/PHYSICAL STATE:

ODOR: Vinegar-like

COLOR: tea brown to tan but can be near water white; color does not affect performance or assay

VAPOR PRESSURE: 23.7 mmHg @ 25C (estimated); 100% active ingredient 0.09mm Hg at 68 deg. F.

VAPOR DENSITY (Air=1): 2.25

BOILING POINT: 212F, 100C due to water content; active ingredient b.p. greater than 250 deg. F.  
SOLUBILITY IN WATER/MISCIBILITY: Miscible in high proportions  
SPECIFIC GRAVITY OR DENSITY: about 8.31 lbs/gal (3.8 kg/3.78 L)  
FREEZING/MELTING POINT: below 35 deg. F.; active ingredient freezing point 0.00 deg. F.  
PH = 6

## 10. STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** Stable under recommended storage conditions. See storage section.

**CONDITIONS TO AVOID:** Product can decompose at elevated temperatures.

**INCOMPATIBILITY WITH OTHER MATERIALS:** Avoid use with aldehydes in concentrated form as under some conditions it can cause a pink color to form. The reaction between aldehydes and this material has not been studied but it is known that materials of this type which contain an amine function can react with aldehydes form a Schiff base.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hazardous decomposition products depend upon temperature, air supply and the presence of other materials.

**HAZARDOUS POLYMERIZATION:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

### ENVIRONMENTAL FATE - INHERENTLY BIODEGRABLE

This material will degrade at a moderate rate and is considered 'inherently biodegradable' according to OECD protocols. The active ingredient degraded to 45% in a 28 day Zahn Wellens Inherent Biodegradability (ECD 302B) test

**ECOTOXICITY:** Because this is a surface active agent, it does have the potential to be toxic to fish; aquatic tox studies on file.

## 12. ECOLOGICAL INFORMATION (For detailed Ecological data write or call the address; AMSA, INC.; 1406 East Pine; Suite 129; Midland, MI 48640)

## 13. DISPOSAL CONSIDERATIONS (See Section 15 for Regulatory Information)

**DISPOSAL:** DO NOT DUMP INTO ANY SEWERS, ON THE GROUND OR INTO ANY BODY OF WATER. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AMSA INC. HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION 2 (Composition/information On Ingredients).

**FOR UNUSED & UNCONTAMINATED PRODUCT:** The preferred options include sending to a licensed, permitted: incinerator or other thermal destruction device.

#### **14. TRANSPORT INFORMATION:**

**DEPARTMENT OF TRANSPORTATION (D.O.T.):** For DOT regulatory information, if required, consult transportation regulations, product shipping papers or contact your representative. Can ship as non-hazardous as per D.O.T. regulations.

#### **15. REGULATORY INFORMATION (Not meant to be all-inclusive-selected regulations represented)**

**NOTICE:** The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See other sections for health and safety information.

#### **U.S. REGULATIONS**

**SARA 313 INFORMATION:** To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

**SARA HAZARD CATEGORY:** This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title 111) and is considered, under applicable definitions, to meet the following categories:

none

#### **TOXIC SUBSTANCES CONTROL ACT (TSCA):**

All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

**STATE RIGHT-TO-KNOW:** The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

#### **REGULATORY INFORMATION (CONTINUED)**

##### **OSHA HAZARD COMMUNICATION STANDARD:**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

##### **COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND):**

This product contains the following substance(s) listed as "Hazardous Substances" under CERCLA which may require reporting of releases:

#### **16. OTHER INFORMATION**

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:**

|              |   |
|--------------|---|
| Health       | 2 |
| Flammability | 1 |
| Reactivity   | 0 |

**MSDS STATUS:**

The data contained in this data sheet is based on AMSA Inc.'s present knowledge of the health and safety properties of the product, and is believed to be accurate and given in good faith. The physical and chemical properties are typical values only and do not constitute the specification of the product, which will be agreed separately. It is for the customer to satisfy itself on the suitability of the product for its own particular purpose AMSA Inc. gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded, except to the extent that law prevents such exclusion.