FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL:

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®:

FOR ALL SDS QUESTIONS & REQUESTS, CALL:

1-800-654-6911 (OUTSIDE USA: 1-423-780-2970) 1-800-424-9300 (OUTSIDE USA: 1-703-527-3887) 1-800-511-MSDS (OUTSIDE USA: 1-423-780-2347)

PRODUCT NAME: AB CUTRINE-PLUS

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION 46105

Supplier

Applied Biochemists (WI) 1400 Bluegrass Lakes Pkwy, Alpharetta, GA, 30004 USA

Telephone: +18005585106 Telefax: +12626741786

Web www.appliedbiochemists.com Manufacturer

REVISION DATE SUPERCEDES

MSDS Number SYNONYMS CHEMICAL FAMILY

DESCRIPTION / USE FORMULA:

02/22/2017 06/16/2016

000000024433 None Mixture

Water treatment chemical None established

Advantis Technologies 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004 United States of America (USA)

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral)

Category 4

GHS label elements

Hazard pictograms

Signal word

Warning

Hazard statements

H302 Harmful if swallowed.

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Precautionary statements

Prevention:

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

Response:

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if

you feel unwell.

P330 Rinse mouth.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container

tightly closed.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS OR CHEMICAL NAME Triethanolamine	CAS# 102-71-6	<u>% RANGE</u> 13 - 16
2-Aminoethanol	141-43-5	11 - 13
copper MEA complex	14215-52-2	11 - 15
copper TEA complex	82027-59-6	11 - 15

SECTION 4. FIRST AID MEASURES

General Advice:

Call a poison control center or doctor for treatment advice. For 24-hour emergency medical assistance, call Arch Chemical Emergency Action Network at 1-800-654-6911. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

Inhalation

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Skin Contact:

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

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Eye Contact

Ingestion

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

SECTION 5. FIREFIGHTING MEASURES

Flammability Summary (OSHA):

Product is not known to be flammable, combustible or pyrophoric.

Flammable Properties

Flash Point:

boils without flashing

Fire / Explosion Hazards:

Extinguishing Media:

Will not burn

Fire Fighting Instructions:

Carbon dioxide (CO2) Dry chemical Foam

Use water spray to cool unopened containers. In case of fire, use

normal fire-fighting equipment and the personal protective

equipment recommended in Section 8 to include a NIOSH approved

self-contained breathing apparatus.

Hazardous Combustion Products:

During a fire, irritating and highly toxic gases may be generated by

thermal decomposition or combustion.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency

Situations

Use the personal protective equipment recommended in Section 8 and a NIOSH approved self-contained breathing apparatus.

Spill Mitigation Procedures

Air Release:

Keep people away from and upwind of spill/leak.

Water Release:

If the product contaminates rivers and lakes or drains inform

respective authorities.

Land Release:

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). The product should not be allowed to enter drains, water

courses or the soil.

Additional Spill Information:

Prevent further leakage or spillage if safe to do so. Evacuate personnel to safe areas. Use personal protective equipment as

required.

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SECTION 7. HANDLING AND STORAGE

Handling:

Do not take internally. Avoid contact with skin, eyes and clothing.

Upon contact with skin or eyes, wash off with water. Avoid breathing

mist or vapor.

Storage:

Store in a cool, dry and well ventilated place. Isolate from

incompatible materials.

Incompatible Materials for Storage:

Refer to Section 10, "Incompatible Materials."

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation.

Local exhaust ventilation or other engineering controls are normally required when handling or using this product to keep airborne exposures below the

TLV, PEL or other recommended exposure limit.

Protective Equipment for Routine Use of Product

Respiratory Protection:

Wear a NIOSH approved respirator if levels above the exposure limits are possible., A NIOSH approved air purifying respirator with organic vapor cartridge and N95 particulate filter. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations

exceed ten (10) times the published limit.

Skin Protection:

Avoid contact with skin. Impervious gloves

Eye Protection:

Safety glasses with side-shields

Protective Clothing Type:

Impervious clothing

General Protective

Emergency eyewash should be provided in the immediate work area.

Measures:

Components with workplace control parameters

Components (CAS-No.)	Value	Control parameters	Basis (Update)
Triethanolamine (102-71-6)	TWA	5 mg/m3	ACGIH (02 2014)
2-Aminoethanol (141-43-5)	TWA	3 ppm	ACGIH (02 2014)
	STEL	6 ppm	ACGIH (02 2014)

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:

liquid

Form

liquid

Color: Odor:

dark blue Amine

Molecular Weight:

None established

10.3 - 10.5

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Boiling Point:

no data available

Melting point/freezing

no data available

point

Density

Not applicable

Bulk Density:

()

no data available no data available

Vapor Pressure: Vapor Density:

> 1

Viscosity:

(Air = 1.0)no data available

Solubility in Water: Partition coefficient ncompletely miscible no data available

octanol/water: Evaporation Rate:

Oxidizing:

no data available None established

Volatiles, % by vol.:

no data available

VOC Content

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's

(40 CFR 60.489). This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.

HAP Content

Not applicable

SECTION 10. STABILITY AND REACTIVITY

Stability and Reactivity Summary:

Stable under normal conditions.

Conditions to Avoid:

High temperatures Strong acids, Nitrates

Chemical Incompatibility: Hazardous Decomposition Products:

Carbon oxides, Nitrogen oxides (NOx)

Decomposition Temperature:

None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

Oral LD50 value:

Triethanolamine

4,200 - 11,300 mg/kg LD50

2-Aminoethanol

LD50

1,510 mg/kg Rat

Component Animal Toxicology

Dermal LD50 value:

Triethanolamine

LD50 > 2,000 mg/kg Rabbit

LD50 > 18,000 mg/kg Rat

2-Aminoethanol

LD50 1,025 mg/kg Rabbit

Component Animal Toxicology

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Inhalation LC50 value:

Product Animal Toxicity

Oral LD50 value

Dermal LD50 value

Inhalation LC50

value

Toxicity:

Skin Irritation:

Eye Irritation

Skin Sensitization:

LD50 Believed to be approximately 3,790 mg/kg Ra

LD50 Believed to be > 2,000 mg/kg Rabbit

no data available

Not expected to be irritating to the skin.

slight irritation

This material is not known or reported to be a skin or respiratory sensitizer.

Triethanolamine

Acute Toxicity May cause mild eye irritation. Ingestion may cause mild gastrointestinal

discomfort.Inhalation of mist or vapor may cause irritation to the mucous

membranes of the respiratory tract.

Subchronic / Chronic Not known or reported to cause subchronic or chronic toxicity.

Reproductive and

Not known or reported to cause reproductive or developmental toxicity.

Developmental Toxicity

Not known or reported to be mutagenic.

Carcinogenicity

Mutagenicity.

This product is not known or reported to be carcinogenic by any reference

source including IARC, OSHA, NTP or EPA.

SECTION 12. ECOLOGICAL INFORMATION

Overview:

Toxic to fish and other aquatic organisms.

Ecological Toxicity Values for: Triethanolamine

Pimephales promelas (fathead - Acute toxicity 96 h LC50 > 1,000 mg/l minnow)

Daphnia magna (Water flea) - Acute toxicity 24 h EC50 1,386 mg/l Desmodesmus subspicatus (green - Growth inhibition 72 h ErC50 750 mg/l

algae)

Pseudomonas putida - Growth inhibition 16 h EC10 7,650 mg/l

Ecological Toxicity Values for: 2-Aminoethanol

Oncorhynchus mykiss (rainbow - Acute toxicity 96 h LC50 150 mg/l

Daphnia magna (Water flea) - Immobilization 24 h EC50 120 mg/l

Desmodesmus subspicatus (green - Growth inhibition 72 h EC50 15 mg/l algae)

activated sludge - Respiration inhibition 3 h EC50 > 1,000 mg/l

Pseudomonas putida - Growth inhibition 16 h EC10 6,300 mg/l

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SECTION 13. DISPOSAL CONSIDERATIONS

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THE MATERIAL. THE USER OF THE MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

Waste Disposal Summary:

If this product becomes a waste, it DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D.

Disposal Methods:

As a nonhazardous liquid waste, it should be disposed of in accordance with local, state and federal regulations.

SECTION 14. TRANSPORT INFORMATION

DOT

Not dangerous goods

TDG

Not dangerous goods

IATA

Not dangerous goods

IMDG-CODE

Not dangerous goods

SECTION 15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

Signal word

CAUTION!

Hazard statements

Harmful if swallowed.

Harmful if absorbed through skin.

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Causes moderate eye irritation.

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards

See above: SECTION 2. Hazard Identification-GHS Classification

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313

The following components are subject to reporting levels established by SARA Title III, Section 313:

Components	CAS-No.	Concentration
Copper, [carbonato(2-)]dihydroxydi-	12069-69-1	

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

AB CUTRINE-PLUS



This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

Components	CAS-No.
2,2',2"-Nitrilotriethanol	102-71-6
2-Aminoethanol	141-43-5

Pennsylvania Right To Know

Components	CAS-No.	
2,2',2"-Nitrilotriethanol	102-71-6	
Copper triethanolamine complex	82027-59-6	
Copper, bis[2-(aminokappa.N)ethanolatokappa.O]-	14215-52-2	
2-Aminoethanol	141-43-5	

New Jersey Right To Know

Components	CAS-No.
2,2',2"-Nitrilotriethanol	102-71-6
Copper triethanolamine complex	82027-59-6
Copper, bis[2-(aminokappa.N)ethanolatokappa.O]-	14215-52-2
2-Aminoethanol	141-43-5

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16. OTHER INFORMATION

Major References:

Available upon request.

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. ARCH CHEMICALS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT ARCH CHEMICALS MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT.

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