

FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL:	1-800-654-6911 (OUTSIDE USA: 1-423-780-2970)
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®:	1-800-424-9300 (OUTSIDE USA: 1-703-527-3887)
FOR ALL SDS QUESTIONS & REQUESTS, CALL:	1-800-511-MSDS (OUTSIDE USA: 1-423-780-2347)

PRODUCT NAME: **APPLIED BIOCHEMISTS FILTERTRINE PRO**

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Supplier

Applied Biochemists
1400 Bluegrass Lakes Parkway ,
Alpharetta, GA, 30004
USA

Telephone: +17705215999
Telefax: +17705215999
Web: www.poolspacare.com

REVISION DATE:	05/20/2016
SUPERCEDES:	05/27/2015
MSDS Number:	000000024444
SYNONYMS:	
CHEMICAL FAMILY:	None
DESCRIPTION / USE	None established
FORMULA:	None established

Manufacturer

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

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids	:	Category 4
Corrosive to metals	:	Category 1
Acute toxicity (Oral)	:	Category 4
Acute toxicity (Inhalation)	:	Category 4
Skin irritation	:	Category 2
Serious eye damage	:	Category 1

GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: H227 Combustible liquid.
 H290 May be corrosive to metals.
 H302 + H332 Harmful if swallowed or if inhaled
 H315 Causes skin irritation.
 H318 Causes serious eye damage.

Precautionary statements

: **Prevention:**
 P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 P234 Keep only in original container.
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/ eye protection/ face protection.
Response:
 P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
 P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
 P312 Call a POISON CENTER/doctor if you feel unwell.
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.
 P362 Take off contaminated clothing and wash before reuse.
 P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
 P390 Absorb spillage to prevent material damage.
Storage:
 P403 + P235 Store in a well-ventilated place. Keep cool.
 P406 Store in corrosive resistant stainless steel container with a resistant inner liner.
Disposal:
 P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
Butoxyethanol	111-76-2	32 - 42
POLY(OXY-1,2-ETHANEDIYL), .ALPHA.- (NONYLPHENYL)-.	9016-45-9	16 - 26
ETIDRONIC ACID	2809-21-4	13 - 23
Citric Acid	77-92-9	5 - 15

SECTION 4. FIRST AID MEASURES

Inhalation:	IF INHALED: Remove individual to fresh air. Seek medical attention if breathing becomes difficult or if respiratory irritation develops.
Skin Contact:	IF ON SKIN: Immediately flush skin with plenty of water for 15 minutes. If clothing comes in contact with the product, the clothing should be removed immediately and laundered before re-use. Seek medical attention.
Eye Contact:	IF IN EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention immediately.
Ingestion:	IF SWALLOWED: Immediately drink water to dilute. Seek medical attention if symptoms develop. Never give anything by mouth to an unconscious person.

SECTION 5. FIREFIGHTING MEASURES

Flammability Summary (OSHA): The product is not flammable., Not combustible., The substance or mixture is not classified as pyrophoric., Not explosive

Flammable Properties

Fire / Explosion Hazards:	Will not burn
Extinguishing Media:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Fire Fighting Instructions:	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.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations: Additional protective clothing must be worn to prevent personal contact with this material. Those items include but are not limited to boots, impervious gloves, hard hat, splash-proof goggles, impervious clothing, i.e., chemically impermeable suit, self-contained breathing apparatus.

Spill Mitigation Procedures

Air Release:

Not applicable

Water Release:

If the product contaminates rivers and lakes or drains inform respective authorities.completely miscible

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).Do not contaminate ponds, waterways or ditches with chemical or used container.

Additional Spill Information :

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

SECTION 7. HANDLING AND STORAGE

Handling: Do not take internally. Avoid contact with skin, eyes and clothing. If in eyes or on skin, rinse well with water. Avoid breathing vapours, mist or gas.

Storage: Store in a cool, dry and well ventilated place. Isolate from incompatible materials. Do not freeze.

Incompatible Materials for Storage: Refer to Section 10, "Incompatible Materials."

Empty Container Warning: Empty containers retain hazardous residue, dispose of accordingly.

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.

Skin Protection : Avoid contact with skin. Impervious gloves

Eye Protection: Chemical resistant goggles must be worn. Face-shield

Protective Clothing Type: Impervious clothing

General Protective Measures: Ensure that eyewash stations and safety showers are close to the workstation location.

Components with workplace control parameters

Components (CAS-No.)	Value	Control parameters	Basis (Update)
Butoxyethanol (111-76-2)	TWA	20 ppm	ACGIH (02 2014)

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	liquid
Form	<** Phrase does not exist: LONZA - SX0900048460 **>
Color:	<** Phrase does not exist: LONZA - SX0900048460 **>
Odor:	<** Phrase does not exist: LONZA - SX0900048460 **>
Molecular Weight:	None established
pH :	0.0 - 2.0 ()
Boiling Point:	212 °F (100 °C)
Melting point/freezing point	no data available
Bulk Density:	() no data available
Vapor Pressure:	no data available
Vapor Density:	> 1
Viscosity:	no data available
Solubility in Water:	completely miscible
Partition coefficient n-octanol/water:	no data available
Evaporation Rate:	no data available
Oxidizing:	None established
Volatiles, % by vol.:	
VOC Content	This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I 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:	Heat
Chemical Incompatibility:	Oxidizing agents
Decomposition Temperature:	No data

SECTION 11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology
Oral LD50 value:

Butoxyethanol	LD50 = 1,590 mg/kg	Rat
POLY(OXY-1,2-ETHANEDIYL), .ALPHA- (NONYLPHENYL)-	LD50 = 4,000 mg/kg	Rat
ETIDRONIC ACID	LD50 = 1,440 mg/kg	Rat
Citric Acid	LD50 = 3,000 mg/kg	Rat

Component Animal ToxicologyDermal LD50 value:

Butoxyethanol	LD50	580 mg/kg	Rabbit
POLY(OXY-1,2-ETHANEDIYL), .ALPHA- (NONYLPHENYL)-	LD50	> 2,000 mg/kg	Rabbit
ETIDRONIC ACID	LD50	> 4,764 mg/kg	Rabbit
Citric Acid	LD50	Believed to be > 2,000 mg/kg	Rabbit

Component Animal ToxicologyInhalation LC50 value:

Butoxyethanol	LC50 4 h	486 ppm	Rat male
	LC50 4 h	450 ppm	Rat female
POLY(OXY-1,2-ETHANEDIYL), .ALPHA- (NONYLPHENYL)-	Inhalation LC50	no data available	
ETIDRONIC ACID		no data available	
Citric Acid		no data available	

Product Animal ToxicityOral LD50 value: No data.Dermal LD50 value: No data.Inhalation LC50 No data.value:

Skin Irritation: Moderate skin irritation

Eye Irritation: Corrosive to eyes

Skin Sensitization: Not believed to be sensitising to skin.

Subchronic / Chronic Toxicity: There are no known or reported effects from chronic exposure.

Reproductive and Developmental Toxicity: Not known or reported to cause reproductive or developmental toxicity.

Butoxyethanol High dose levels of this chemical produced maternal

toxicity, and embryoletality and fetal malformations.

ETIDRONIC ACID

This product has been tested and was shown not to produce any adverse effects on reproductive function or fetal development when administered to laboratory animals.

Citric Acid

This chemical has been tested in laboratory animals and there was no evidence of reproductive toxicity or teratogenicity.

Mutagenicity: Not known or reported to be mutagenic.

Butoxyethanol

This material has been shown to be non-mutagenic in the majority of a battery of assays. Not expected to be a mutagenic hazard.

ETIDRONIC ACID

This chemical has been tested and was shown to be non-mutagenic.

Citric Acid

This product was determined to be non-mutagenic in the Ames assay. It was also shown to be negative in the Dominant lethal assay.

Carcinogenicity: This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.

Butoxyethanol

This material has been classified by the U.S. EPA as a "Group C" carcinogen (Suggestive Human Carcinogen), based on equivocal and limited evidence in laboratory animals. The International Agency for Research on Cancer (IARC) has classified this product or a component of this product as a Group 3 substance, Unclassifiable as to Its Carcinogenicity to Humans.

ETIDRONIC ACID

This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA. Chemicals of similar structure have been shown not to cause cancer in laboratory animals.

Citric Acid

The carcinogenicity has been evaluated through animal study and it was found not to be carcinogenic.

SECTION 12. ECOLOGICAL INFORMATION

Overview: There is no data available for this product.

Ecological Toxicity Values for: Butoxyethanol

Lepomis macrochirus (Bluegill sunfish)	- static test 96 h LC50 = 1,490 mg/l
Brine shrimp	- static test 24 h LC50= 1,000 mg/l
Daphnia magna (Water flea)	- static test 48 h EC50> 1,000 mg/l
Crangon crangon (shrimp)	- 48 h LC50= 800 mg/l

Ecological Toxicity Values for: ETIDRONIC ACID

	Bluegill	-	96 h LC50 = 868 mg/l
Rainbow trout (<i>Salmo gairdneri</i>),		-	96 h LC50 = 368 mg/l
Channel Catfish (<i>Ictalurus punctatus rafinesque</i>),		-	96 h LC50 = 695 mg/l
Sheepshead minnow		-	96 h LC50 = 2,180 mg/l
	Daphnia magna,	-	48 h EC50= 527 mg/l
Grass shrimp		-	96 h LC50= 1,770 mg/l
Oyster Shell Deposition		-	96 h EC50= 89 mg/l
	Mallard duck	-	Oral LD50 > 2,510 mg/kg
Bobwhite quail		-	Oral LD50 > 2,510 mg/kg

Ecological Toxicity Values for: Citric Acid

Lepomis macrochirus (Bluegill sunfish)		-	(static). 96 h LC50 = 1,516 mg/l
Daphnia magna (Water flea)		-	72 h EC50approximately 120 mg/l

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 meets the criteria of a hazardous waste as defined under 40 CFR 261 and would have the following EPA hazardous waste number: D002. As a hazardous liquid waste it must be disposed of in accordance with local, state and federal regulations.

SECTION 14. TRANSPORT INFORMATION**DOT**

UN number	: 3265
Description of the goods	: Corrosive liquid, acidic, organic, n.o.s. : (Etidronic acid)
Class	: 8
Packing group	: III
Labels	: 8
Emergency Response	: 153

Guidebook Number

TDG

UN number : 3265
 Description of the goods : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
 (Etidronic acid)
 Class : 8
 Packing group : III
 Labels : 8

IATA

UN number : 3265
 Description of the goods : Corrosive liquid, acidic, organic, n.o.s.
 (Etidronic acid)
 Class : 8
 Packing group : III
 Labels : 8
 Packing instruction (cargo aircraft) : 856
 Packing instruction (passenger aircraft) : 852
 Packing instruction (passenger aircraft) : Y841

IMDG-CODE

UN number : 3265
 Description of the goods : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
 (Etidronic acid)
 Class : 8
 Packing group : III
 Labels : 8
 EmS Number 1 : F-A
 EmS Number 2 : S-B

Product not regulated for ground transport in the USA per exception permitted in 49 CFR 173.154(d).

SECTION 15. REGULATORY INFORMATION

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 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:

Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)- .omega.-hydroxy-	9016-45-9
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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 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

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

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 toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

2-Butoxyethanol	111-76-2
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Pennsylvania Right To Know

2-Butoxyethanol	111-76-2
Etidronic acid	2809-21-4
Citric acid	77-92-9

New Jersey Right To Know

2-Butoxyethanol	111-76-2
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Etidronic acid 2809-21-4
Phosphonic acid 13598-36-2

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.

The components of this product are reported in the following inventories:

TSCA : The components of this product are listed on the TSCA Inventory of Existing Chemical Substances.

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

SECTIONS REVISED: First formulated version in SAP.
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. .