

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 TILE MAX PLUS**

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:	03/29/2017
SUPERCEDES:	02/11/2016
MSDS Number:	000000024395
SYNONYMS:	
CHEMICAL FAMILY:	None
DESCRIPTION / USE	None established
FORMULA:	None established

Manufacturer




Arch Chemicals, Inc.
1200 Bluegrass Lakes Parkway
Alpharetta, GA 30004
United States of America (USA)

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals	:	Category 1
Acute toxicity (Oral)	:	Category 4
Acute toxicity (Inhalation)	:	Category 3
Skin corrosion	:	Category 1A
Serious eye damage	:	Category 1
Specific target organ toxicity - single exposure	:	Category 3 (Respiratory system)

GHS label elements

Hazard pictograms	:	  
Signal word	:	Danger
Hazard statements	:	H290 May be corrosive to metals. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H331 Toxic if inhaled. H335 May cause respiratory irritation.
Precautionary statements	:	Prevention: 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/ protective clothing/ eye protection/ face protection. Response: P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. 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. P363 Wash contaminated clothing before reuse. P390 Absorb spillage to prevent material damage. Storage: P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. 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>
Tallow alkyl amines, ethoxylated	61791-26-2	10 - 20
Sulfuric acid	7664-93-9	10 - 15
HYDROCHLORIC ACID	7647-01-0	6 - 12
Phosphoric acid	7664-38-2	5 - 10
Alcohols, C12-14-secondary, ethoxylated	84133-50-6	1 - 3

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. If not breathing, give artificial respiration. Call for medical assistance.
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 if irritation develops.
Eye Contact:	IF IN EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention immediately.
Ingestion:	IF SWALLOWED: Call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person.
Notes to Physician:	Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5. FIREFIGHTING MEASURES

Flammability Summary (OSHA): Product is not known to be flammable, combustible, pyrophoric or explosive.

Flammable Properties

Fire / Explosion Hazards: Material will not ignite or burn. Reacts with most metals to form flammable hydrogen gas.

Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Fire Fighting Instructions:	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. Use water spray to cool unopened containers.
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:	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.
<u>Spill Mitigation Procedures</u>	
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. soluble
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. Remove all sources of ignition.

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., A NIOSH approved full-face air purifying respirator with acid gas cartridge and N-95 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 Boots Apron A full impervious suit is recommended if exposure is possible to a large portion of the body.

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

Protective Clothing Type: Neoprene, Butyl-rubber, Natural Rubber

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)
Sulfuric acid (7664-93-9)	TWA	0.2 mg/m ³	ACGIH (02 2014)
HYDROCHLORIC ACID (7647-01-0)		2 ppm	ACGIH (02 2014)
Phosphoric acid (7664-38-2)	TWA	1 mg/m ³	ACGIH (02 2014)
	STEL	3 mg/m ³	ACGIH (02 2014)

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: liquid
 Form No data.
 Color: No data.
 Odor: No data.
 Molecular Weight: None established
 pH : 0.0 - 2.0
 ()
 Boiling Point: 212 °F (100 °C)
 Melting point/freezing point Not applicable
 Bulk Density: ()
 no data available
 Vapor Pressure: not determined

Vapor Density:	> 1
Viscosity:	no data available
Solubility in Water:	soluble in cold water
Partition coefficient n-octanol/water:	Not applicable
Evaporation Rate:	no data available
Oxidizing:	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 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, flames and sparks.
Chemical Incompatibility:	Strong oxidizing agents, Bases, Amines, Metals, Alkalis
Hazardous Decomposition Products:	Hydrogen chloride
Decomposition Temperature:	No data

SECTION 11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

Oral LD50 value:

Tallow alkyl amines, ethoxylated	LD50	620 mg/kg	Rat
	LD50	500 mg/kg	Rat
Phosphoric acid	LD50	Aqueous solution	2,600 mg/kg Rat
Alcohols, C12-14-secondary, ethoxylated	LD50	2,100 mg/kg	Rat
	LD50	= 1,630 mg/kg	Rat

Component Animal Toxicology

Dermal LD50 value:

Tallow alkyl amines, ethoxylated	LD50	> 10,000 mg/kg	Rat
Phosphoric acid	LD50	2,740 mg/kg	Rabbit
Alcohols, C12-14-secondary, ethoxylated	LD50	= 1,127 mg/kg	Rabbit

Component Animal Toxicology

Inhalation LC50 value:

Tallow alkyl amines,	no data available
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ethoxylated

Product Animal Toxicity

Oral LD50 value: LD50 Believed to be approximately 1,700 mg/kg Rat
Dermal LD50 value: LD50 Believed to be > 2,000 mg/kg Rabbit
Inhalation LC50 value: LC50 1 h (aerosol) Believed to be approximately 2.95 mg/l Rat
 Skin Irritation: Corrosive to skin
 Eye Irritation: Corrosive to eyes
 Skin Sensitization: This material is not known or reported to be a skin or respiratory sensitizer.

Tallow alkyl amines, ethoxylated

Sulfuric acid no data available

Acute Toxicity: This product is corrosive to all tissues contacted and upon inhalation, may cause irritation to mucous membranes and respiratory tract.
 Subchronic / Chronic Toxicity: Not known or reported to cause subchronic or chronic toxicity.

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

Mutagenicity: Not known or reported to be mutagenic.

Carcinogenicity: This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA. The International Agency for Research on Cancer (IARC) has determined that there is sufficient evidence that occupational exposure to strong inorganic acid mists containing sulfuric acid is carcinogenic (Group I carcinogen). The following data is available for sulfuric acid:

SECTION 12. ECOLOGICAL INFORMATION

Overview: Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Ecological Toxicity Values - Product:

- LC50 Believed to be approximately 2.58 mg/l (calculated)

Ecological Toxicity Values for: Tallow alkyl amines, ethoxylated

Channel Catfish (<i>Ictalurus punctatus rafinesque</i>),	- static test 96 h LC50 = 16.9 mg/l
Coho salmon	- static test 96 h LC50 = 1.8 mg/l
Lepomis macrochirus (Bluegill sunfish)	- static test 96 h LC50 = 1.4 mg/l
Pimephales promelas (fathead minnow)	- static test 96 h LC50 = 1.0 mg/l

- Oncorhynchus mykiss (rainbow trout) - static test 96 h LC50 = 1.6 mg/l
- Daphnia magna (Water flea) - static test 48 h EC50= 7.2 mg/l
- Daphnia pulex (Water flea) - static test 48 h LC50= 2.35 mg/l

Ecological Toxicity Values for: Sulfuric acid

- No specific ecological data available for this product. Please refer to Section 6 for information regarding accidental releases and Section 15 for regulatory reporting information.activated sludge
- 120 h EC50 58 mg/l

Ecological Toxicity Values for: Phosphoric acid

- Gambusia affinis (Mosquito fish) - 96 h LC50 138 mg/l
- Lepomis macrochirus (Bluegill sunfish) - 96 h LC50 3 - 3.25 mg/l
- Daphnia magna (Water flea) - Immobilization 48 h EC50 > 100 mg/l
- Desmodesmus subspicatus (green algae) - 72 h NOEC 100 mg/l
- Desmodesmus subspicatus (green algae) - 72 h EC50 > 100 mg/l
- activated sludge - EC50 270 mg/l

Ecological Toxicity Values for: Alcohols, C12-14-secondary, ethoxylated

- Pimephales promelas (fathead minnow) - (static, renewal) 96 h LC50 = 1.7 mg/l
- Oncorhynchus mykiss (rainbow trout) - (static, renewal) 96 h LC50 = 1.8 mg/l
- Daphnia magna (Water flea) - (static, renewal) 48 h EC50 0.9 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 : 3264
Description of the goods : Corrosive liquid, acidic, inorganic, n.o.s.
(hydrochloric acid, Sulphuric acid)
Class : 8
Packing group : II
Labels : 8
Emergency Response : 154
Guidebook Number

TDG

UN number : 3264
Description of the goods : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
(hydrochloric acid, Sulphuric acid)
Class : 8
Packing group : II
Labels : 8

IATA

UN number : 3264
Description of the goods : Corrosive liquid, acidic, inorganic, n.o.s.
(hydrochloric acid, Sulphuric acid)
Class : 8
Packing group : II
Labels : 8
Packing instruction (cargo aircraft) : 855
Packing instruction (passenger aircraft) : 851
Packing instruction (passenger aircraft) : Y840

IMDG-CODE

UN number : 3264
Description of the goods : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
(hydrochloric acid, Sulphuric acid)
Class : 8
Packing group : II
Labels : 8
EmS Number 1 : F-A
EmS Number 2 : S-B

SECTION 15. REGULATORY INFORMATION

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

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sulphuric acid	7664-93-9	1000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

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

The following components are subject to reporting levels established by SARA Title III, Section 302:

Components	CAS-No.	Concentration
Sulphuric acid	7664-93-9	13.95 %
Hydrochloric acid (in water)	7647-01-0	9.0465 %

SARA 313

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

Components	CAS-No.	Concentration
Sulphuric acid	7664-93-9	13.95 %
Hydrochloric acid (in water)	7647-01-0	9.0465 %

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

Components	CAS-No.	Concentration
Hydrochloric acid (in water)	7647-01-0	

The following chemical(s) are listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F):

Components	CAS-No.	Concentration
Sulphuric acid	7664-93-9	
Hydrochloric acid (in water)	7647-01-0	

SAFETY DATA SHEET

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

Clean Water Act

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Components	CAS-No.	Component RQ (lbs)
Sulphuric acid	7664-93-9	1000
Hydrochloric acid (in water)	7647-01-0	5000
Orthophosphoric acid	7664-38-2	5000

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Components	CAS-No.	Concentration
Sulphuric acid	7664-93-9	
Hydrochloric acid (in water)	7647-01-0	
Orthophosphoric acid	7664-38-2	

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.
Sulphuric acid	7664-93-9
Hydrochloric acid (in water)	7647-01-0
Orthophosphoric acid	7664-38-2

Pennsylvania Right To Know

Components	CAS-No.
Tallow alkyl amines, ethoxylated	61791-26-2
Sulphuric acid	7664-93-9
Hydrochloric acid (in water)	7647-01-0
Orthophosphoric acid	7664-38-2

New Jersey Right To Know

Components	CAS-No.
Tallow alkyl amines, ethoxylated	61791-26-2
Sulphuric acid	7664-93-9
Hydrochloric acid (in water)	7647-01-0
Orthophosphoric acid	7664-38-2

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.

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. .