

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 MSDS QUESTIONS & REQUESTS, CALL:	1-800-511-MSDS (OUTSIDE USA: 1-423-780-2347)

**PRODUCT NAME: QUANTUM SEQUESTALL FOR POOLS**

## **1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Supplier</b> <b>Quantum Biochemical</b> <b>1400 Bluegrass Lakes Parkway ,</b> <b>Alpharetta, GA, 30004</b> <b>United States</b>	<b>REVISION DATE:</b> 03/21/2011 <b>SUPERCEDES:</b> 07/16/2009
<b>Telephone: +17705215999</b> <b>Telefax: +17705215959</b> <b>Web: www.poospacare.com</b>	<b>MSDS Number:</b> 000000012546 <b>SYNONYMS:</b> None <b>CHEMICAL FAMILY:</b> None <b>DESCRIPTION / USE:</b> None established <b>FORMULA:</b> None established

**Manufacturer**  
**Advantis Technologies**  
**1400 Bluegrass Lakes Parkway**  
**Alpharetta, GA 30004**  
**United States of America**

## **2. HAZARDS IDENTIFICATION**

OSHA Hazard  
Classification:

**Corrosive to eyes., Moderate skin irritant, Possible respiratory irritant**

Routes of Entry:	Inhalation, skin, eyes, ingestion
Chemical Interactions:	No known or reported interactions.
Medical Conditions Aggravated:	None known or reported

Human Threshold Response Data

Odor Threshold                      Not established for product.

Irritation Threshold                Not established for product.

**Hazardous Materials Identification System / National Fire Protection Association Classifications**

<u>Hazard Ratings :</u>	<u>Health</u>	<u>Flammability</u>	<u>Physical / Instability</u>	<u>PPI / Special hazard.</u>
HMIS	3	0	0	
NFPA	3	0	0	

Immediate (Acute) Health Effects

Inhalation Toxicity:	Not expected to be toxic by inhalation. Inhalation of mist or vapor may cause irritation to the mucous membranes of the respiratory tract. Any irritation would be transient with no permanent damage expected.
Skin Toxicity:	Not expected to be toxic from dermal contact. Skin contact may cause moderate irritation consisting of transient redness and swelling. This irritant effect would not be expected to result in permanent damage.
Eye Toxicity:	Corrosive. Burns can occur following exposure. Direct contact may cause impairment of vision, corneal damage and/or blindness. Rinsing of the eye should take place immediately.
Ingestion Toxicity:	Ingestion may cause irritation of the gastrointestinal tract and gastrointestinal discomfort with any or all of the following symptoms: nausea, vomiting or diarrhea. Not expected to be toxic by ingestion.
Acute Target Organ Toxicity:	This product is corrosive to the eyes, moderately irritating to the skin and upon inhalation, may cause irritation to mucous membranes and respiratory tract.

Prolonged (Chronic) Health Effects

Carcinogenicity:	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.
Reproductive and Developmental Toxicity:	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.
Inhalation:	There are no known or reported effects from chronic exposure.
Skin Contact:	Prolonged or repeated exposure may cause severe irritation.
Skin Absorption:	There are no known or reported effects from chronic exposure.
Ingestion:	There are no known or reported effects from chronic ingestion except for effects similar to those experienced from single exposure.
Eye Contact:	Prolonged contact may result in permanent damage.

Sensitization: This material tested negative for skin sensitization in animals.  
Chronic Target Organ Toxicity: There are no known or reported effects to humans from repeated exposure to this product.  
Supplemental Health Hazard Information : No additional health information available.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

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<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
ETIDRONIC ACID	2809-21-4	

### 4. FIRST AID MEASURES

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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 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.

### 5. FIRE FIGHTING MEASURES

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

#### Flammable Properties

Fire / Explosion Hazards: This material is not expected to burn unless all the water is boiled away. The remaining compounds may be ignitable.  
Extinguishing Media: Not Applicable. - Choose extinguishing media suitable for surrounding materials.  
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.

Hazardous Combustion Products: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

## 6. ACCIDENTAL RELEASE MEASURES

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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:

Vapors may be suppressed by the use of water fog. Keep people away from and upwind of spill/leak.

Water Release:

This material is soluble in water. 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). After removal, flush contaminated area thoroughly with water. Do not contaminate ponds, waterways or ditches with chemical or used container.

Additional Spill Information :

Stop source of spill as soon as possible and notify appropriate personnel. Utilize emergency response personal protection equipment prior to the start of any response. Evacuate all non-essential personnel. Dispose of spill residues per guidelines under Section 13, Disposal Consideration.

## 7. HANDLING AND STORAGE

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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. Keep containers tightly closed when not in use.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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Ventilation: Local exhaust ventilation is recommended if vapors, mists, aerosols or dusts are generated. Otherwise, use general exhaust ventilation.

### Protective Equipment for Routine Use of Product

Respiratory Protection : Respiratory protection not normally needed., If vapors, mists or aerosols are generated, wear a NIOSH approved respirator., A NIOSH approved full-face or half-face respirator in combination with chemical goggles., A NIOSH approved air purifying respirator with P100 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 : Wear impervious gloves to avoid skin contact.

Eye Protection: Use chemical goggles and a faceshield.

Protective Clothing Type: Impervious

General Protective Measures: An eye wash and safety shower should be provided in the immediate work area.

#### Exposure Limit Data

<u>CHEMICAL NAME</u>	<u>CAS #</u>	<u>Name of Limit</u>	<u>Exposure</u>
No Data Found			

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

Physical State:	liquid
Form	No data.
Color:	No data.
Odor:	No data.
Molecular Weight:	None established
Specific Gravity :	1.01 - 1.02
	20 °C
pH :	< 0.0 - 2.0
Boiling Point:	100 °C
	212 °F
Freezing Point:	
	not applicable
Melting Point:	
	not applicable
Density:	
Bulk Density:	no data available
Vapor Pressure:	no data available
Vapor Density:	no data available
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	no data available
HAP Content	Not applicable

Stability and Reactivity Summary:	Stable under normal conditions.
Conditions to Avoid:	High temperatures
Chemical Incompatibility:	Strong oxidizing agents, Bases, Amines, metal salts
Hazardous Decomposition Products:	Carbon monoxide, Carbon dioxide, Phosphines may form after all water has been removed., Oxides of nitrogen
Decomposition Temperature:	No data

containing 3% HEDP-A. No effect was observed at a dietary concentration of 1%., The hematological effects observed in laboratory studies using rodents would be unlikely to occur in humans because of the high dose required.

Reproductive and Developmental Toxicity:	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.
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.
Mutagenicity: ETIDRONIC ACID	This chemical has been tested and was shown to be non-mutagenic. This chemical has been tested and was shown to be non-mutagenic.
Carcinogenicity: 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. 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.

## 12. ECOLOGICAL INFORMATION

Overview: Practically non- toxic to fish and other aquatic organisms., Practically non-toxic to wildlife and domestic animals.

### 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

## 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 will be a hazardous waste which is subject to the Land Disposal restrictions under 40 CFR 268 and must be managed accordingly.

Disposal Methods : As a hazardous liquid waste it must be disposed of in accordance with local, state and federal regulations.

## 14. TRANSPORT INFORMATION

Land (US DOT): Not Regulated NOT REGULATED AS A DOT HAZARDOUS MATERIAL  
Water (IMDG): UN3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., (ETIDRONIC  
ACID) 8 III Marine Pollutant: No

Air (IATA): UN3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., (ETIDRONIC  
ACID) 8 III

Emergency Response Guide Number: Not applicable

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

EMS: F-A, S-B

## 15. REGULATORY INFORMATION

### UNITED STATES:

Toxic Substances Control Act (TSCA): The components of this product are listed on the TSCA Inventory of Existing Chemical Substances.

EPA Pesticide Registration Number: None established

FIFRA Listing of Pesticide Chemicals Not registered in the US under FIFRA.



(40 CFR 180):

**Superfund Amendments and Reauthorization Act (SARA) Title III:**

Hazard Categories Sections 311 / 312 (40 CFR 370.2):

Health	Immediate (Acute) Health Hazard
Physical	None

**Emergency Planning & Community Right to Know (40 CFR 355, App. A):**

**Extremely Hazardous Substance Section 302 - Threshold Planning Quantity:**

ZUS_SAR302	TPQ (threshold planning quantity)	None established
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**Reportable Quantity (49 CFR 172.101, Appendix):**

ZUS_CERCLA	Reportable quantity	None established
ZUS_SAR302	Reportable quantity	None established

**Supplier Notification Requirements (40 CFR 372.45), 313 Reportable Components**

ZUS_SAR313	De minimis concentration	None established
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**Clean Air Act Toxic ARP Section 112r:**

CAA 112R	None established
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**Clean Air Act Socmi:**

HON SOC	None established
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**Clean Air Act VOC Section 111:**

CAA 111	None established
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**Clean Air Act Haz. Air Pollutants Section 112:**

ZUS_CAAHAP	None established
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ZUS_CAAHRP	None established
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CAA AP	None established
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**State Right-to-Know Regulations Status of Ingredients**

**Pennsylvania:**

CAS #	COMPONENT NAME
ZUSPA_RTK	None established

**New Jersey:**

CAS #	COMPONENT NAME
ZUSNJ_RTK	None established

**Massachusetts:**

CAS #	COMPONENT NAME
ZUSMA_RTK	None established

**California Proposition 65:**

CAS #	COMPONENT NAME
ZUSCA_P65	None established

**WHMIS Hazard Classification:**

None established

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**16. OTHER INFORMATION**

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**MSDS REVISION STATUS :****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. .