

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

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®:

FOR ALL MSDS QUESTIONS &amp; 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: QUANTUM RMS****1. PRODUCT AND COMPANY IDENTIFICATION****Supplier****Quantum Biochemical  
1400 Bluegrass Lakes Parkway ,  
Alpharetta, GA, 30004  
United States****Telephone: +17705215999****Telefax: +17705215959****Web: www.poospacare.com**

REVISION DATE:

04/07/2011

SUPERCEDES:

05/09/2001

MSDS Number:

000000012563

SYNONYMS:

CHEMICAL FAMILY:

None

DESCRIPTION / USE

None established

FORMULA:

None established

**Manufacturer****Advantis Technologies  
1400 Bluegrass Lakes Parkway  
Alpharetta, GA 30004  
United States of America****2. HAZARDS IDENTIFICATION**OSHA Hazard  
Classification:**Corrosive to skin, Corrosive to eyes, Corrosive to mucous membranes**

Routes of Entry:

Eyes Skin Ingestion Inhalation

Chemical Interactions:

None known.

Medical Conditions Aggravated:

None known.

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. Not expected to be an inhalation hazard at ambient conditions. Inhalation of mist or vapor may cause irritation and/or burns to the mucous membranes of the respiratory tract.

Skin Toxicity:                                Causes skin burns. Not expected to be toxic from dermal contact.

Eye Toxicity:                                Causes eye burns.

Ingestion Toxicity:                        Causes digestive tract burns. Not expected to be toxic by ingestion.

Acute Target Organ Toxicity:            This product is corrosive to all tissues contacted 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.

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

Inhalation:                                    There are no known or reported effects from chronic exposure except for effects similar to those experienced from acute exposure.

Skin Contact:                                There are no known or reported effects from chronic exposure except for effects (if any) similar to those experienced from acute exposure.

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. The acute corrosivity of this product, makes chronic ingestion of significant amounts unlikely.

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

Chronic Target Organ Toxicity:            There are no known or reported target organ effects from chronic exposure.

Supplemental Health Hazard Information :                                      No additional health information available.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

---

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
PHOSPHORIC ACID	7664-38-2	
HYDROCHLORIC ACID	7647-01-0	

### 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 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.

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

## 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:	Hazardous concentrations in air may be found in local spill area and immediately downwind. Vapors may be suppressed by the use of water fog.
Water Release:	This material is soluble in water. Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so.
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. Avoid runoff into storm sewers and ditches which lead to waterways.
Additional Spill Information :	Prevent further leakage or spillage if safe to do so. Use personal protective equipment as required. Evacuate personnel to safe areas.

## 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 vapors, 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."

## 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 or half-face respirator in combination with chemical goggles., A NIOSH approved full-face air purifying respirator with acid gas cartridge and N95 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: impervious clothing

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

### Exposure Limit Data

<u>CHEMICAL NAME</u>	<u>CAS #</u>	<u>Name of Limit</u>	<u>Exposure</u>
PHOSPHORIC ACID	7664-38-2	ACGIH	1 mg/m3 TWA
PHOSPHORIC ACID	7664-38-2	ACGIH	3 ppm STEL
PHOSPHORIC ACID	7664-38-2	OSHA Z1	1 mg/m3 TWA
PHOSPHORIC ACID	7664-38-2	NIOSH-IDLH	1,000 mg/m3
HYDROCHLORIC ACID	7647-01-0	ACGIH	2 ppm C
HYDROCHLORIC ACID	7647-01-0	OSHA Z1	5 ppm C 7 mg/m3 C
HYDROCHLORIC ACID	7647-01-0	NIOSH-IDLH	50 ppm

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

Physical State: liquid

Form No data.

Color: No data.

Odor: No data.

Molecular Weight: None established

Specific Gravity : 1.1 - 1.2

20 °C

pH : 0.0 - 2.0

Boiling Point:	100 °C 212 °F
Freezing Point:	not applicable
Melting Point:	not applicable
Density:	no data available
Bulk Density:	no data available
Vapor Pressure:	no data available
Vapor Density:	> 1
Viscosity:	no data available
Solubility in Water:	soluble in cold water
Partition coefficient n-octanol/water:	Not applicable
Evaporation Rate:	<1
Oxidizing:	None established
Volatiles, % by vol.:	no data available
VOC Content	no data available
HAP Content	Not applicable

## 10. STABILITY AND REACTIVITY

---

Stability and Reactivity Summary:	Stable under normal conditions.
Conditions to Avoid:	Heat., Avoid freezing.
Chemical Incompatibility:	Oxidizing agents, Amines, Metals, alkalis
Hazardous Decomposition Products:	Hydrogen chloride
Decomposition Temperature:	No data

## 11. TOXICOLOGICAL INFORMATION

---

### Component Animal Toxicology

#### Oral LD50 value:

PHOSPHORIC ACID	LD50	= 1,530 mg/kg	Rat
HYDROCHLORIC ACID	LD50	900 mg/kg	Rabbit

### Component Animal Toxicology

#### Dermal LD50 value:

PHOSPHORIC ACID	LD50	= 2,740 mg/kg	Rabbit
HYDROCHLORIC ACID		No data	

Component Animal Toxicology
Inhalation LC50 value:

PHOSPHORIC ACID      Inhalation LC50 1 h > 0.850 MG/L Rat  
 HYDROCHLORIC ACID      Inhalation LC50 1 h 3,124 ppm Rat

Product Animal Toxicity

Oral LD50 value:      LD50 Believed to be > 5,000 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 > 9.1 mg/l rat  
 Skin Irritation:      Corrosive to skin  
 Eye Irritation:      Corrosive to eyes  
 Skin Sensitization:      Not believed to be sensitising to skin.

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.

PHOSPHORIC ACID      This material has been tested and was found not to cause reproductive toxicity in laboratory animals.

Mutagenicity:      Not known or reported to be mutagenic.  
 PHOSPHORIC ACID      This product was determined to be non-mutagenic in the Ames assay.  
 HYDROCHLORIC ACID      This chemical has been shown to be non-mutagenic based on a battery of assays.

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

## 12. ECOLOGICAL INFORMATION

Overview:      Moderately toxic to fish and other aquatic organisms.

Ecological Toxicity Values - Product:

- LC50 Believed to be approximately 7.8 mg/l (calculated)

Ecological Toxicity Values for: **PHOSPHORIC ACID**

Mosquito fish - 96 h LC50 138 mg/l

Ecological Toxicity Values for: **HYDROCHLORIC ACID**

Mosquito fish	-	96 h LC50 = 282 mg/l
Bluegill	-	48 h LC50 = 3.6 mg/l
Fathead minnow (Pimephales promelas),	-	96 h LC50 = 21.9 mg/l
Common shrimp (Crangon crangon)	-	(nominal, renewal). 48 h LC50= 260 mg/l
Daphnia magna,	-	48 h EC50= 0.492 mg/l

### 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.

Potential US EPA Waste Codes : D002

### 14. TRANSPORT INFORMATION

Land (US DOT): UN1760 CORROSIVE LIQUID, N.O.S. (HYDROCHLORIC ACID, PHOSPHORIC ACID) 8 II

QUANTUM RMS

REVISION DATE : 04/07/2011

Page 8 of 12



Water (IMDG): UN1760 CORROSIVE LIQUID, N.O.S., (HYDROCHLORIC ACID,  
PHOSPHORIC ACID) 8 II Marine Pollutant: No

Air (IATA): UN1760 CORROSIVE LIQUID, N.O.S., (HYDROCHLORIC ACID,  
PHOSPHORIC ACID) 8 II

Emergency Response Guide Number: ERG # 154

Transportation Notes: Under specific circumstances, this product can ship under two  
transport exceptions, Limited Quantity or Consumer  
Commodity. See Bill of Lading for proper shipping description.  
Hazardous Substance as defined in 49 CFR 172.101,  
Appendix A: Yes

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 (40 CFR 180): Not registered in the US under FIFRA.

### 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
------------	--------------------------------------	------------------

#### Reportable Quantity (49 CFR 172.101, Appendix):

ZUS_CERCLA	Reportable quantity	Hydrochloric acid
		Hydrogen chloride
		Value: 5,000lbs
		Phosphoric acid
		Value: 5,000lbs

ZUS\_SAR302 Reportable quantity

 Hydrogen Chloride (gas only) ( Gas)  
 Value: 5,000lbs

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

ZUS\_SAR313 De minimis concentration

 Hydrochloric acid  
 Value: 1%

**Clean Air Act Toxic ARP Section 112r:**

CAA 112R None established

**Clean Air Act Socmi:**

HON SOC None established

**Clean Air Act VOC Section 111:**

CAA 111 None established

**Clean Air Act Haz. Air Pollutants Section 112:**

ZUS\_CAAHAP None established

ZUS\_CAAHRP None established

CAA AP None established

**State Right-to-Know Regulations Status of Ingredients**
**Pennsylvania:**

CAS #	COMPONENT NAME
7647-01-0	HYDROCHLORIC ACID
7664-38-2	PHOSPHORIC ACID

ZUSPA\_RTK

Pennsylvania: Hazardous substance list

1990-01-01

HYDROCHLORIC ACID

Environmental hazard, hazardous substance

Pennsylvania: Hazardous substance list

1989-08-11

HYDROCHLORIC ACID

Environmental hazard

Pennsylvania: Hazardous substance list

1989-08-11

PHOSPHORIC ACID

Environmental hazard

**New Jersey:**

CAS #	COMPONENT NAME
7647-01-0	HYDROCHLORIC ACID
7664-38-2	PHOSPHORIC ACID

ZUSNJ\_RTK

New Jersey Right to Know Hazardous Substance List (RTK-HSL)

2007-03-01

HYDROGEN CHLORIDE MURIATIC ACID HYDROCHLORIC ACID

Special Health Hazard - Corrosive

New Jersey Right to Know Hazardous Substance List (RTK-HSL)

2007-03-01

PHOSPHORIC ACID

Special Health Hazard - Corrosive

**Massachusetts:**

CAS #	COMPONENT NAME
7647-01-0	HYDROCHLORIC ACID
7664-38-2	PHOSPHORIC ACID

ZUSMA\_RTK

Massachusetts Right to Know List of Chemicals and Hazard Classifications

1993-04-24

HYDROGEN CHLORIDE HYDROCHLORIC ACID

Extraordinarily hazardous

Massachusetts Right to Know List of Chemicals and Hazard Classifications

1993-04-24

PHOSPHORIC ACID

**California Proposition 65:**

CAS #	COMPONENT NAME
-------	----------------

ZUSCA\_P65

None established

**WHMIS Hazard Classification:**

Ingredient Disclosure List (WHMIS)

QUANTUM RMS

REVISION DATE : 04/07/2011

Page 11 of 12

2007-08-24

Threshold limits: 1 Weight percent

502

Hydrogen chloride

Ingredient Disclosure List (WHMIS)

2007-08-24

Threshold limits: 1 Weight percent

127

Phosphoric acid

## 16. OTHER INFORMATION

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. .