

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: **QUANTUM CALCIUM HARDNESS UP**

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Supplier

Quantum Biochemical
1400 Bluegrass Lakes Parkway ,
Alpharetta, GA, 30004
USA

Telephone: +17705215999
Telefax: +17705215959
Web: www.poolspacare.com

REVISION DATE:	05/26/2015
SUPERCEDES:	10/27/2010
MSDS Number:	000000024502
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

Acute toxicity (Oral)	:	Category 4
Skin irritation	:	Category 2
Eye irritation	:	Category 2A

GHS Label element

Hazard pictograms	:	
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Signal word	:	Warning
Hazard statements	:	H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation.
Precautionary statements	:	Prevention: P264 Wash hands thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. P330 Rinse mouth. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P363 Wash contaminated clothing before reuse. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P310 Immediately call a POISON CENTER or doctor/ physician. P321 Specific treatment (see supplemental first aid instructions on this label). P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
CALCIUM CHLORIDE	10043-52-4	94 - 100
POTASSIUM CHLORIDE (KCL)	7447-40-7	2 - 4
SODIUM CHLORIDE	7647-14-5	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.

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: 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.

SECTION 5. FIREFIGHTING MEASURES

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

Flammable Properties

Flash Point:	Not applicable
Fire / Explosion Hazards:	Material will not ignite or 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.
Upper Flammable / Explosive Limit, % in air:	Not applicable
Lower Flammable / Explosive Limit, % in air:	Not applicable

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:	Not applicable
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:	Sweep up and shovel into suitable containers for disposal. Avoid creating dust.
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 dust.

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 is recommended if significant dusting occurs. Otherwise use general exhaust ventilation.

Protective Equipment for Routine Use of Product

Respiratory Protection : Respiratory protection not normally needed., If dusting occurs, wear a NIOSH approved N95 dust respirator.

Skin Protection : Impervious gloves

Eye Protection: Use chemical goggles.

Protective Clothing Type: impervious clothing

General Protective Measures: Emergency eyewash should be provided in the immediate work area.

Components with workplace control parameters

no data available

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	solid
Form	No data.
Color:	No data.
Odor:	No data.
Molecular Weight:	None established
pH :	9.0 - 11.0 () 10 g/l (as aqueous solution)
Boiling Point:	388.0 °F (197.8 °C)
Melting point/freezing point	no data available
Density	Not applicable
Bulk Density:	() no data available
Vapor Pressure:	0.012 hPa 68 °F (20 °C)
Vapor Density:	Not applicable

Viscosity:	no data available no data available
Solubility in Water:	soluble in cold water
Partition coefficient n-octanol/water:	No data
Evaporation Rate:	Not applicable
Oxidizing:	None established
Volatiles, % by vol.:	Not applicable
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., Product will not undergo hazardous polymerization.
Conditions to Avoid:	Heat, Exposure to moisture
Chemical Incompatibility:	Avoid moisture., Acids, Metals
Hazardous Decomposition Products:	No hazardous decomposition products are known.
Decomposition Temperature:	No data

SECTION 11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

Oral LD50 value:

CALCIUM CHLORIDE	LD50 = 1,000 mg/kg	Rat
POTASSIUM CHLORIDE (KCL)	LD50 = 2,600 mg/kg	Rat
SODIUM CHLORIDE	LD50 = 3,000 mg/kg	Rat

Component Animal Toxicology

Dermal LD50 value:

CALCIUM CHLORIDE	LD50 = 2,630 mg/kg	Rat
POTASSIUM CHLORIDE (KCL)	No data	
SODIUM CHLORIDE	LD50 > 10,000 mg/kg	Rabbit

Component Animal Toxicology

Inhalation LC50 value:

CALCIUM CHLORIDE	No data	
POTASSIUM CHLORIDE (KCL)	No data	
SODIUM CHLORIDE	Inhalation LC50 1 h >	42 mg/l Rat

Product Animal Toxicity

Oral LD50 value: LD50 Believed to be approximately 1,000 mg/kg Rat

Dermal LD50 value: LD50 Believed to be > 2,000 mg/kg Rat

Inhalation LC50 value: LC50 no data available

Skin Irritation: This material is expected to be slightly irritating.

Eye Irritation: Moderate to Severe Eye Irritant

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

Acute Toxicity: Powder can cause irritation to eyes, skin & respiratory tract. Liquid solution can cause burns to the skin and eyes.

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.

CALCIUM CHLORIDE Not known or reported to cause reproductive or developmental toxicity.

Mutagenicity: Not known or reported to be mutagenic.

CALCIUM CHLORIDE This product was determined to be non-mutagenic in the Ames assay. It was also shown to be non-clastogenic in the chromosomal aberration test.

POTASSIUM CHLORIDE (KCL) This product has been tested for mutagenicity. Tests revealed both positive and negative results.

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

CALCIUM CHLORIDE This chemical is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP, or EPA.

SECTION 12. ECOLOGICAL INFORMATION

Overview: This product is expected to have low toxicity to fish and other aquatic organisms.

Ecological Toxicity Values for: CALCIUM CHLORIDE

	Bluegill	- (nominal, static). 96 h LC50 = 10,650 mg/l
Mosquito fish		- (nominal, static). 96 h LC50 = 13,400 mg/l
Pimephales promelas (fathead minnow)		- (nominal, static). 96 h LC50 = 4,630 mg/l
	Daphnia magna,	- (nominal, static). 48 h LC50= 2,770 mg/l
Ceriodaphnia dubia		- (nominal, static). 48 h LC50= 1,830 mg/l
	Nitzschia linearis (diatom)	- (nominal, static). 5 day LC50 = 3,130 mg/l

Ecological Toxicity Values for: POTASSIUM CHLORIDE (KCL)

- Gambusia affinis (Mosquito fish) - static test 96 h LC50 = 920 mg/l
Lepomis macrochirus (Bluegill sunfish) - static test 96 h LC50 = 2,010 mg/l
Daphnia magna (Water flea) - 48 h EC50= 825 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 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. As a nonhazardous solid 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**EPCRA - Emergency Planning and Community Right-to-Know Act****SARA 302**

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

SARA 313

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 12 (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**

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

Calcium chloride	10043-52-4
Potassium chloride	7447-40-7

New Jersey Right To Know

Calcium chloride	10043-52-4
Potassium chloride	7447-40-7

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), TSCA (USA)

SECTION 16. OTHER INFORMATION

SECTIONS REVISED: 1
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. .