

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: Fresh Water Calcium Hardness Increaser

1. PRODUCT AND COMPANY IDENTIFICATION

Supplier Watkins 1280 Park Center Drive , Vista, CA, 92081 United States	REVISION DATE: 01/20/2011 SUPERCEDES: 06/22/2009
Telephone: +17605986464 Telefax: +17607341359 Web:	MSDS Number: 000000012502 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:	Mild eye irritant, Mild skin irritant
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Routes of Entry:	Skin, eyes, ingestion
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	1	0	0	
NFPA	1	0	0	

Immediate (Acute) Health Effects

Inhalation Toxicity: Not expected to be an inhalation hazard at ambient conditions. 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: May cause skin irritation. Not expected to be toxic from dermal contact.

Eye Toxicity: May cause eye irritation. No corneal involvement or visual impairment is expected.

Ingestion Toxicity: May be slightly toxic if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Acute Target Organ Toxicity: May cause mild skin and eye irritation. Ingestion may cause mild gastrointestinal discomfort., Inhalation of mist or vapor may cause irritation to the mucous membranes of the 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.

Ingestion: There are no known or reported effects from chronic ingestion except for effects similar to those experienced from single exposure.

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>
CALCIUM CHLORIDE	10043-52-4	

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: Flush skin with water for 15 minutes. Take off all contaminated clothing. Seek medical attention if irritation develops.
Eye Contact:	IF IN EYES: Flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation develops.
Ingestion:	IF SWALLOWED: Immediately drink water to dilute. Seek medical attention if symptoms develop. Never give anything by mouth to an unconscious person.

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.

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

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Air Release: not applicable
Water Release: soluble 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). The product should not be allowed to enter drains, water courses or the soil.
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 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."

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation: No exposure limits exist for the constituents of this product. Additional ventilation beyond that of general exhaust is not normally required.

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., Wear a NIOSH approved N95 respirator.
Skin Protection : Impervious gloves
Eye Protection: Safety glasses with side-shields
Protective Clothing Type: impervious clothing
General Protective Measures: Emergency eyewash 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:	clear
Odor:	No data.
Molecular Weight:	None established
Specific Gravity :	1.2
	20 °C
pH :	no data available
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:	not applicable
Viscosity:	no data available 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

10. STABILITY AND REACTIVITY

Stability and Reactivity Summary:	Stable under normal conditions.
Conditions to Avoid:	Heat.
Chemical Incompatibility:	Strong acids, Metals
Hazardous Decomposition Products:	Hydrogen chloride gas
Decomposition Temperature:	No data

11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

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Oral LD50 value:
CALCIUM CHLORIDE LD50 = 1,000 mg/kg Rat

Component Animal Toxicology

Dermal LD50 value:
CALCIUM CHLORIDE LD50 = 2,630 mg/kg Rat

Component Animal Toxicology

Inhalation LC50 value:
CALCIUM CHLORIDE No data

Product Animal Toxicity

Oral LD50 value: LD50 Believed to be approximately 2,700 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: This material is expected to be slightly irritating.
Skin Sensitization: This material is not known or reported to be a skin or respiratory sensitizer.

Acute Toxicity: May cause mild skin and eye irritation. Ingestion may cause mild gastrointestinal discomfort. Inhalation of mist or vapor may cause irritation to the mucous membranes of the 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.

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.

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.

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
Fathead minnow (Pimephales promelas),	- (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

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.

Potential US EPA Waste Codes : not applicable

14. TRANSPORT INFORMATION

Land (US DOT): Not Regulated NOT REGULATED AS A DOT HAZARDOUS MATERIAL
Water (IMDG): NOT REGULATED AS A HAZARDOUS MATERIAL,

Air (IATA): NOT REGULATED AS A HAZARDOUS MATERIAL,
Emergency Response Guide Number: Not applicable

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 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

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
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

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. .

