

MATERIAL SAFETY DATA SHEET

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Ultima SOS

1. Product And Company Identification																			
Supplier Advantis Technologies 1400 Bluegrass Lakes Parkway Alpharetta, GA 30004 United States Telephone Number: (770) 521-5999 FAX Number: (770) 521-5959 Web Site: www.poolspacare.com		Manufacturer Advantis Technologies 1400 Bluegrass Lakes Parkway Alpharetta, GA 30004 United States Telephone Number: (770) 521-5999 FAX Number: (770) 521-5959 Web Site: www.poolspacare.com																	
Supplier Emergency Contacts & Phone Number CHEMTREC - DAY OR NIGHT: (800) 424-9300 ACEAN - DAY OR NIGHT: (800) 654-6911		Manufacturer Emergency Contacts & Phone Number CHEMTREC - DAY OR NIGHT: (800) 424-9300 ACEAN - DAY OR NIGHT: (800) 654-6911																	
Issue Date: 04/17/2009 Product Name: Ultima SOS MSDS Number: 352																			
2. Composition/Information On Ingredients																			
<table border="1"><thead><tr><th>Ingredient Name</th><th>CAS Number</th><th></th><th>Percent Of Total Weight</th></tr></thead><tbody><tr><td>POTASSIUM HYDROGEN PEROXYMONOSULFATE SULFATE</td><td>70693-62-8</td><td></td><td></td></tr><tr><td>SODIUM CARBONATE</td><td>497-19-8</td><td></td><td></td></tr><tr><td>SODIUM DICHLORO-S-TRIAZINETRIONE</td><td>2893-78-9</td><td></td><td></td></tr></tbody></table>				Ingredient Name	CAS Number		Percent Of Total Weight	POTASSIUM HYDROGEN PEROXYMONOSULFATE SULFATE	70693-62-8			SODIUM CARBONATE	497-19-8			SODIUM DICHLORO-S-TRIAZINETRIONE	2893-78-9		
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Ingredients listed in this section have been determined to be hazardous as defined in 29CFR 1910.1200. Materials determined to be health hazards are listed if they comprise 1% or more of the composition. Materials identified as carcinogens are listed if they comprise 0.1% or more of the composition. Information on proprietary materials is available in 29CFR 1910.1200(i)(1).																			
EMERGENCY OVERVIEW																			
DANGER. Corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin.																			
3. Hazards Identification																			
Eye Hazards Causes irreversible eye damage. Eye contact may cause eye corrosion, ulceration, irritation with tearing, pain or blurred vision. Severe eye damage may result if not immediately treated.																			
Skin Hazards Causes skin burns. Skin contact with dry product upon contact with moisture or perspiration may cause skin burns or ulceration, irritation with itching, burning, redness, swelling or rash; temporary body hair loss may occur in contacted areas. Skin contact with the product may cause allergic skin reactions in sensitive individuals. May be harmful if absorbed through the skin.																			
Ingestion Hazards May be harmful if ingested. Ingestion may cause gastritis possibly progressing to necrosis or hemorrhage. Irritation of the digestive tract may appear with stomach pain, heartburn, nausea, vomiting or diarrhea; however, there may be no symptoms at all.																			
Inhalation Hazards Inhalation may cause irritation of the nose, throat, and lungs with cough, nose bleeds, difficulty breathing or shortness of breath. Avoid breathing dusts, mists or vapors. May be fatal if inhaled.																			

Ultima SOS

3. Hazards Identification - Continued

Chronic/Carcinogenicity Effects

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

First Aid (Pictograms)



4. First Aid Measures

Eye

Hold eyelids open and rinse slowly with water for 15-20 minutes. Remove contact lenses if present after 5 minutes then continue rinsing eye. Call poison control center or doctor for treatment advice.

Skin

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Ingestion

Call a poison control center immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless directed to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Inhalation

Move person to fresh air. If person is not breathing call 911 or an ambulance then give artificial respiration preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Note To Physician

Probable mucosal damage may contraindicate the use of gastric lavage.
Have product container with you when calling a poison control center or doctor, or when going for treatment. IN CASE OF EMERGENCY CALL: 1-800-654-6911.

Fire Fighting (Pictograms)



5. Fire Fighting Measures

Flash Point: N/A °F

Flammability Class: N/A

Fire And Explosion Hazards

Will not burn. Improper storage of large masses of this material can trap heat and lead to ignition of combustibles. Grinding or intensive mixing may cause decomposition with liberation of heat, oxygen and chlorine gas; ignition of oxidizable material if present may occur.

Extinguishing Media

Water. Flood with high volume, low pressure water. Small quantities of water may react with this product to form chlorine gas. Do not use carbon dioxide or other gas-filled fire extinguishers; they will have no effect on decomposing persulfates.

Fire Fighting Instructions

Will release oxygen when heated, intensifying a fire. Will release chlorine gas. Acidic mist may be present; self contained breathing apparatus should be used.

Ultima SOS

6. Accidental Release Measures

Sweep up. Flush area with low pressure water.

Do not discharge to sewer. Toxic to fish and aquatic organisms.

Handling & Storage (Pictograms)



7. Handling And Storage

Handling Precautions

Open in a well ventilated area. Avoid breathing dust and fumes. Do not get in eyes, on skin or on clothing. Wash hands after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

Storage Precautions

Store in a cool, dry, well-ventilated area away from heat sources such as light fixtures or space heaters. Leave open space on all sides of each pallet to provide ventilation. See local fire codes for allowable limits. Bulk Bags should be stored on pallets; if stacked use pyramid style, no more than 2 pallets high. Closely stacked bags should not exceed 4 ft. cube. Keep packages dry. Do not store with combustible materials or with incompatibles.

Nonrefillable container - household/residential use}

[Keep this product dry in its tightly closed container when not in use. Store in a cool, dry, well-ventilated area. Keep away from heat or open flame. Nonrefillable container. Do not reuse or refill this container. Rinse empty container thoroughly with water to dissolve all material prior to disposal. Offer for recycling if available. Do not contaminate food or feed by storage or disposal or cleaning of equipment. FOR DISPOSAL OF A CONTAMINATED OR DECOMPOSING PRODUCT SEE EMERGENCY HANDLING.]

Nonrefillable container - single-use, non-resealable package}

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7. Handling And Storage - Continued

Storage Precautions - Continued

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Protective Clothing (Pictograms)



8. Exposure Controls/Personal Protection

Engineering Controls

Use sufficient ventilation to keep employee exposure below recommended limits.

Eye/Face Protection

Wear safety glasses or coverall chemical splash goggles.

Skin Protection

Where there is potential for skin contact have available and wear appropriate impervious gloves, apron, pants and jacket.

Respiratory Protection

A NIOSH approved air-purifying respirator with an appropriate particulate cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a positive pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

9. Physical And Chemical Properties

Appearance

White granular to powder

Odor

None (mild), chlorine

Chemical Type: Mixture

Physical State: Solid

Specific Gravity: 1.1-1.4

Percent Volatiles: <1%

pH Factor: 7-7.5 At a Concentration Of 1% solution

Solubility: in water is 25 g 100 cc H₂O at 20C

10. Stability And Reactivity

Stability: Stable

Hazardous Polymerization: Will not occur

Conditions To Avoid (Stability)

DANGER. If product is exposed to small amounts of water, it can react violently to produce heat and toxic gas and spatter. Do not add water to this product. Add only into water.

Incompatible Materials

Contains oxidizing agents. Do not mix with chemicals or any other substance.

Ultima SOS

10. Stability And Reactivity - Continued

Incompatible Materials - Continued

This mixture, if mixed with compounds containing halides or active halogens, can cause release of the respective halogen if moisture is present. For example, mixing with calcium hypochlorite or with sodium bromide can cause release of chlorine or bromine gas, respectively. Mixing with heavy metal salts such as those of cobalt, nickel, copper, or manganese can cause decomposition with release of oxygen and heat.

Hazardous Decomposition Products

Decomposes when heated or dampened, releasing oxygen, chlorine gas and heat of decomposition.

Decomposition temperature: >110 degrees C. Exposure to heat can cause this product to rapidly decompose, leading to a fire, explosion, and the release of toxic gases.

Do not mix this product with a small amount of water. Only add this product directly to your pool.

Do not allow to become wet or damp before use.

Can react with other materials, including other water treatment products, to cause fire, explosion, and the release of toxic gases.

Keep all foreign matter, including other water treatment products, away from this product.

Use only clean dry utensils to dispense this product.

Do not allow this product to contact other water treatment products. If used with a skimmer, make sure skimmer is completely clean and free of residue from other water treatment products before putting this product in a skimmer.

Avoid spilling this product.

Strong oxidizing agent. This product can increase fire intensity.

Keep away from heat and from flame and burning material (like a lighted cigarette).

11. Toxicological Information

Potassium Hydrogen Peroxymonosulfate Sulfate:

Inhalation 4 hour LC50: >5 mg/L in rats

Skin absorption LD50: >11000 mg/kg in rabbits

Oral LD50: 200-2000 mg/kg in rats

Severe skin and eye irritant, but is not a skin sensitizer in animals.

Single exposure by inhalation produced nonspecific effects such as weight loss and slight respiratory irritation.

Repeated inhalation exposures produced eye irritation and reversible corneal damage.

Administration of large single ingestion doses produced nonspecific effects such as weight loss and irritation, as well as gastric ulceration, necrosis and hemorrhage. Repeated administration at a combined dosage of 1000/600 mg/kg for 13 weeks caused pathological changes of the stomach, body weight loss, gasping, noisy respiration, and hunched posture. There were no toxic effects noted at 20 or 200 mg/kg and the no-observed-adverse-effect-level (NOAEL) is considered to be 200 mg/kg.

Tests for carcinogenic activity or reproductive toxicity have not been performed. A range-finding developmental toxicity study showed developmental effects only at exposure levels producing other toxic effects in the adult animal.

Did not produce genetic damage in bacterial cell cultures. Did produce genetic damage in mammalian cell cultures. It did produce genetic damage in tests on animals, but showed some evidence of bone marrow cell toxicity in female mice.

Sodium Dichloroisocyanurate:

Oral LD50: 1420 mg/kg in rats

Oral LD50: 1230 mg/kg in mice

Dermal LD50: >2000 mg/kg in rabbits

Inhalation 4-hour LC50: >0.036 & <0.799 mg/L in rats

Animal testing indicates Sodium Dichloroisocyanurate is an eye irritant; and, it has been reported to be non-corrosive to skin.

The following is known for a substance that is analogous in structure to Sodium Dichloroisocyanurate: Animal testing

Ultima SOS**11. Toxicological Information - Continued**

indicates the analogous substance is a skin irritant, but is not a skin sensitizer.
Rats and dogs fed Sodium Dichloroisocyanurate in their diet for 6 months showed no signs of toxicity or organ damage.
Sodium Dichloroisocyanurate has not caused developmental effects in animals.
Sodium Dichloroisocyanurate has not caused genetic damage in bacterial cell cultures.
Sodium Dichloroisocyanurate is degraded in the body to Sodium Cyanurate. The following data exists for Sodium Cyanurate: Rats and mice, given Sodium Cyanurate (up to its limit of solubility) in their drinking water for 90 days, displayed no major compound-related adverse effects.
Sodium Cyanurate has not caused genetic damage in mammalian cell cultures or in animals.
Sodium Cyanurate has not caused carcinogenic, developmental or reproductive toxicity effects in long-term, repeated-dose studies in animals.

Sodium Carbonate:

Oral LD50: 4200 mg/kg in rats

Sodium Carbonate is a skin irritant, is a severe eye irritant, but is untested for animal sensitization.
Single exposure by inhalation caused respiratory irritation. Repeated exposures caused reduced weight gain and respiratory irritation.
No animal data are available to define the carcinogenicity or reproductive hazards of this material. In animal testing sodium carbonate has not caused developmental toxicity. It does not produce genetic damage in bacterial or mammalian cell cultures or animals, but has not been tested for heritable genetic damage.

12. Ecological Information**Ecotoxicological Information**

Potassium Hydrogen Peroxymonosulfate Sulfate:

96 hour LC50 - Rainbow trout: 53 mg/L
48 hour EC50 - Daphnia magna: 3.5 mg/L

Sodium Dichloroisocyanurate:

96 hour LC50 - Bluegill sunfish: 0.43 mg/L
96 hour LC50 - Rainbow trout: 0.25-0.65 mg/L
96 hour LC50 - Fathead minnow: 0.70 mg/L
48 hour EC50 - Daphnia magna: 0.11-0.28 mg/L
24 hour EC50 - Asiatic clam: 0.6 mg/L

Sodium Carbonate:

96 hour LC50 - Bluegill sunfish: 300 mg/L
96 hour LC50 - Mosquito fish: 1200 mg/L

This product is toxic to fish and aquatic organisms.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. for guidance contact your State Water Board or Regional Office of the EPA.

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13. Disposal Considerations

Nonrefillable container - household/residential use}

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Comply with Federal, State, and local regulations. Large quantities should be tested for residual chlorine and dechlorinated if necessary.

14. Transport Information

Proper Shipping Name

Not regulated

Hazard Class

Not regulated

DOT Identification Number

NONE

15. Regulatory Information

SARA Hazard Classes

Acute Health Hazard

Ultima SOS

15. Regulatory Information - Continued

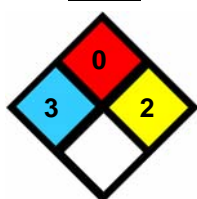
Canadian Regulatory Information

Class C Oxidizing Material
 Class D Division 2 Subdivision B - Toxic Material. Skin or Eye Irritant
 Class E Corrosive Material

WHMIS - Canada (Pictograms)



NFPA



HMIS

HEALTH	3
FLAMMABILITY	0
REACTIVITY	2
PERSONAL PROTECTION	C

16. Other Information

Revision/Preparer Information

MSDS Preparer: JHW

Disclaimer

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purposes(s).

Advantis Technologies, Inc.