

MATERIAL SAFETY DATA SHEET

Ultima SOS

1. Product And Company Identification			
Supplier Advantis Technologies, Inc. 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, Inc. 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		Manufacturer Emergency Contacts & Phone Number CHEMTREC - DAY OR NIGHT: (800) 424-9300	
Issue Date: 06/12/2006 Product Name: Ultima SOS CAS Number: Not Established MSDS Number: 352			
2. Composition/Information On Ingredients			
Ingredient Name	CAS Number		Percent Of Total Weight
POTASSIUMHYDROGENPEROXYMONOSULFATESULFATE	70693-62-8		
SODIUM CARBONATE	497-19-8		
SODIUMDICHLORO-S-TRIAZINETRIONE	2893-78-9		
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			
Individuals with preexisting diseases of the skin or gastrointestinal tract may have increased susceptibility to the toxicity of excessive exposures.			
3. Hazards Identification			
Eye Hazards 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 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.			

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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

In case of contact, hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

Skin

In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician or poison control center immediately. Wash clothing before reuse.

Ingestion

DO NOT INDUCE VOMITING. Drink 2 glasses of water. Contact a physician or poison control. Never give anything by mouth to an unconscious victim.

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician or a poison control center immediately.

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.

6. Accidental Release Measures

Sweep up. Flush area with low pressure water.

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

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Handling & Storage (Pictograms)



7. Handling And Storage

Handling Precautions

Do not inhale. Do not get in eyes, on skin or clothing. Wash thoroughly after handling. Wash clothing after use.

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.

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

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10. Stability And Reactivity - Continued

Hazardous Polymerization: Will not occur

Conditions To Avoid (Stability)

The mixture reacts when moistened with small quantities of water to produce heat, carbon dioxide and chlorine gas.

Incompatible Materials

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

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.

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 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.

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11. Toxicological Information - Continued

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

13. Disposal Considerations

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

No Data Available...

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15. Regulatory Information - Continued

SARA Hazard Classes

Acute Health Hazard

Canadian Regulatory Information

Class C Oxidizing Material

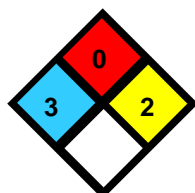
Class D Division 2 Subdivision B - Toxic Material. Skin or Eye Irritant

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

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Advantis Technologies, Inc.

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