

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: **ULTIMA S.O.S.**

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Supplier Ultima 1400 Bluegrass Lakes Parkway , Alpharetta, GA, 30004 USA	REVISION DATE: 05/26/2015 SUPERCEDES: 05/03/2011
Telephone: +17705215999 Telefax: +17705215999 Web: www.poolspacare.com	MSDS Number: 000000024380 SYNONYMS: None CHEMICAL FAMILY: Not Applicable/Mixture DESCRIPTION / USE: Swimming pool water treatment FORMULA: None established
Manufacturer Advantis Technologies 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004 United States of America	

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Oxidizing solids	:	Category 1
Acute toxicity (Oral)	:	Category 4
Acute toxicity (Inhalation)	:	Category 4
Skin irritation	:	Category 2
Serious eye damage	:	Category 1
Respiratory sensitisation	:	Category 1
Skin sensitisation	:	Category 1

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Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

GHS Label element

Hazard pictograms :



Signal word : Danger

Hazard statements : H271 May cause fire or explosion; strong oxidiser.
H302 + H332 Harmful if swallowed or if inhaled
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.

Precautionary statements :

Prevention:

P210 Keep away from heat.
P220 Keep/Store away from clothing/ combustible materials.
P221 Take any precaution to avoid mixing with combustibles.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ eye protection/ face protection.
P283 Wear fire/ flame resistant/ retardant clothing.
P285 In case of inadequate ventilation wear respiratory protection.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
P306 + P360 IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or

alcohol-resistant foam to extinguish.

P371 + P380 + P375 In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
POTASSIUM PEROXYMONOSULFATE	10058-23-8	25 - 35
POTASSIUM SULFATE	7778-80-5	15 - 25
POTASSIUM BISULFATE	7646-93-7	12 - 18
SODIUM DICHLORO-S-TRIAZINETRIONE	2893-78-9	10 - 20
Sodium carbonate	497-19-8	8 - 14
POTASSIUM PEROXYDISULFATE	7727-21-1	1 - 3
MAGNESIUM CARBONATE	546-93-0	0 - 2

SECTION 4. FIRST AID MEASURES

Inhalation:	IF INHALED: 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.
Skin Contact:	IF ON SKIN OR CLOTHING: 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.

Eye Contact: IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Ingestion: IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not 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

Fire / Explosion Hazards: Material will not ignite or burn. Will release oxygen when heated, intensifying a fire

Extinguishing Media: Water only.

Fire Fighting Instructions: 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. Use water to cool containers.

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

SECTION 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.

Spill Mitigation Procedures

Air Release: Hazardous concentrations in air may be found in local spill area and immediately downwind. Contain all solids for treatment or disposal.

Water Release: Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so. Contain all solids for treatment or disposal. Continue to handle as described in land spill.

Land Release: Sweep up and place in suitable clean, dry containers for reclamation or later disposal. Avoid dust generation. Do not place spill materials back in their original containers. After removal, flush contaminated area thoroughly with water. Avoid runoff into storm sewers and ditches which lead to waterways.

Additional Spill Information : Stop source of spill as soon as possible and notify appropriate personnel. Utilize emergency response personal protection equipment prior to the start of any response. Evacuate all non-essential personnel. Dispose of spill residues per guidelines under Section 13, Disposal Consideration.

SECTION 7. HANDLING AND STORAGE

Handling: Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Avoid inhalation of dust and fumes.

Storage: Store in a cool dry ventilated location, away from sources of ignition or other incompatible conditions and chemicals. Keep container(s) closed. Protect from moisture.

Incompatible Materials for Storage: Refer to Section 10, "Incompatible Materials."

SECTION 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.

Respirator Type : A NIOSH approved full-face air purifying respirator equipped with combination chlorine/P100 cartridges. 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 : Wear impervious gloves, boots and apron to avoid skin contact. A full impervious suit is recommended if exposure is possible to a large portion of the body.

Eye Protection: Use chemical goggles.

Protective Clothing Type: Neoprene

General Protective Measures: An eye wash and safety shower should be provided in the immediate work area.

Components with workplace control parameters

Components (CAS-No.)	Value	Control parameters	Basis (Update)
POTASSIUM PEROXYDISULFATE (7727-21-1) [as persulfate]	TWA	0.1 mg/m ³	ACGIH (02 2014)

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	solid
Form	No data.
Color:	No data.
Odor:	No data.
Molecular Weight:	None established
Relative density	1.1 - 1.4 (20 °C (20 °C)) ()
pH :	7.0 - 7.5 () 10 g/l (as aqueous solution)
Boiling Point:	Not applicable
Melting point/freezing point	No data
Density:	No data
Bulk Density:	() no data available
Vapor Pressure:	no data available
Vapor Density:	Not applicable
Viscosity:	Not applicable no data available
Solubility in Water:	250 g/l 68 °F (20 °C)
Partition coefficient n-octanol/water:	Not applicable
Evaporation Rate:	Not applicable
Oxidizing:	None established
Volatiles, % by vol.:	
VOC Content	no data available 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	

SECTION 10. STABILITY AND REACTIVITY

Stability and Reactivity Summary:	Stable under normal conditions. Product will not undergo hazardous polymerization.
Conditions to Avoid:	Sparks, open flame, other ignition sources, and elevated temperatures., Contact with incompatible substances, Exposure to moist air or water
Chemical Incompatibility:	This product is chemically reactive with many substances, including, e.g., other pool treatment products, acids, organics, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, corrosive , flammable or combustible materials., Heavy metals such as cobalt, nickel, copper, or manganese, Halides, Avoid moisture.

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Chlorine containing gases, Decomposes when heated or dampened, releasing oxygen and heat
 Decomposition Temperature: No data

SECTION 11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

Oral LD50 value:

POTASSIUM BISULFATE LD50 = 2,340 mg/kg Rat
 Sodium carbonate LD50 = 4,090 mg/kg Rat

Component Animal Toxicology

Dermal LD50 value:

Sodium carbonate LD50 Believed to be > 2,000 mg/kg Rabbit

Component Animal Toxicology

Inhalation LC50 value:

Sodium carbonate LC50 1 h = 4.6 mg/l Rat

Product Animal Toxicity

Oral LD50 value: LD50 Believed to be approximately 1,600 mg/kg Rat

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

Inhalation LC50 value: LC50 1 h (aerosol dust) Believed to be > 10 mg/l Rat

Skin Irritation: DRY MATERIAL CAUSES MODERATE SKIN IRRITATION., The dry material is irritating to the skin. However when wet, it will produce burns to the skin.

Eye Irritation: Corrosive to eyes.

Skin Sensitization: May cause allergic skin sensitization in some individuals.

Acute Toxicity: Corrosive to the eyes, moderately irritating to the skin and respiratory tract and moderately to severely irritating to the gastrointestinal tract. The dry material is irritating to the skin. However when wet, it will produce burns to the skin.

Subchronic / Chronic Toxicity: Not known or reported to cause subchronic or chronic toxicity.

Sodium carbonate

Male rats were exposed to an aerosol of 2% aqueous solution of this chemical, 4 hr.day, 5 days/week for 3-1/2 months. No effect was observed at a concentration of 10 or 20 mg/cubic meter. At 70 mg/cubic meter weight gain was decreased and the lungs showed thickening of the intra-alveolar walls, hyperemia, and lymphoid infiltration., Repeated or prolonged skin contact with this product may cause dermatitis and blistering.

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

Sodium carbonate This chemical has been tested in laboratory animals and no evidence of teratogenicity was seen.

Mutagenicity: Not known or reported to be mutagenic.

Sodium carbonate 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.

SECTION 12. ECOLOGICAL INFORMATION

Overview: Moderately toxic to fish and other aquatic organisms.

Ecological Toxicity Values for: POTASSIUM SULFATE

- Lepomis macrochirus (Bluegill sunfish) - 96 hr. EC50 (cell growth inhibition) 96 h LC50 = 3,550 mg/l
- Pimephales promelas (fathead minnow) - 96 h LC50 = 680 mg/l
- Daphnia magna (Water flea) - 48 h EC50= 720 mg/l

Ecological Toxicity Values for: SODIUM DICHLORO-S-TRIAZINETRIONE

- Lepomis macrochirus (Bluegill sunfish) - 96 h LC50 = 0.43 mg/l
- Oncorhynchus mykiss (rainbow trout) - 96 h LC50 Believed to be approximately 0.45 mg/l
- Pimephales promelas (fathead minnow) - 96 h LC50 = 0.70 mg/l
- Daphnia magna (Water flea) - 48 h EC50 Believed to be approximately 0.195 mg/l

Ecological Toxicity Values for: Sodium carbonate

- Pimephales promelas (fathead minnow) - (nominal, static). 96 h LC50 < 850 mg/l
- Bluegill - (nominal, static). 96 h LC50 = 320 mg/l
- Mosquito fish - (nominal, static). 96 h LC50 = 740 mg/l
- Daphnia magna, - (nominal, static). 48 h LC50= 265 mg/l
- Ceriodaphnia dubia - (nominal) 48 h EC50= 199.82 mg/l
- Navicula seminulum (diatom) - (nominal, static). 96 h EC50 = 242 mg/l

Ecological Toxicity Values for: POTASSIUM PEROXYDISULFATE

- Cyprinus carpio (Carp) - 48 h LC50 = 1,360 mg/l

Oncorhynchus mykiss (rainbow trout) - 48 h LC50 = 234 mg/l
 Poecilia reticulata (guppy) - 48 h LC50 = 845 mg/l
 Daphnia magna (Water flea) - 48 h LC50= 92 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 : IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL

Disposal Methods : As a nonhazardous waste, it should be disposed of in accordance with local, state and federal regulations.

Potential US EPA Waste Codes : Not applicable

SECTION 14. TRANSPORT INFORMATION

DOT

UN number : 3077
 Description of the goods : Environmentally hazardous substances, solid, n.o.s.
 : (Sodium dichloro-s-triazine trionedihydrate)
 Class : 9
 Packing group : III
 Labels : 9
 Emergency Response : 171
 Guidebook Number

TDG

UN number : 3077
 Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
 N.O.S.
 : (Sodium dichloro-s-triazine trionedihydrate)
 Class : 9
 Packing group : III
 Labels : 9

IATA

UN number : 3077
 Description of the goods : Environmentally hazardous substance, solid, n.o.s.
 (Sodium dichloro-s-triazine trionedihydrate)
 Class : 9
 Packing group : III
 Labels : 9MI
 Packing instruction (cargo aircraft) : 956
 Packing instruction (passenger aircraft) : 956
 Packing instruction (passenger aircraft) : Y956

IMDG-CODE

UN number : 3077
 Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
 N.O.S.
 (Sodium dichloro-s-triazine trionedihydrate)
 Class : 9
 Packing group : III
 Labels : 9
 EmS Number 1 : F-A
 EmS Number 2 : S-F
 Marine pollutant : yes

SECTION 15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

Signal word : DANGER!
 Hazard statements : Harmful if swallowed.
 Harmful if absorbed through skin.
 Corrosive. Causes skin burns.
 Corrosive. Causes irreversible eye damage.
 This pesticide is toxic to fish.

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 SOCMII Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

adipic acid	124-04-9	0.005 %
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The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

adipic acid	124-04-9	0.005 %
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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

troclosene sodium	2893-78-9
Dipotassium peroxodisulphate	7727-21-1
Magnesium carbonate	546-93-0

Pennsylvania Right To Know

Potassium hydrogenperoxomonosulphate	10058-23-8
Potassium sulfate	7778-80-5
Potassium hydrogensulphate	7646-93-7
troclosene sodium	2893-78-9
Sodium carbonate	497-19-8
Dipotassium peroxodisulphate	7727-21-1

New Jersey Right To Know

Potassium hydrogenperoxomonosulphate	10058-23-8
Potassium sulfate	7778-80-5
Potassium hydrogensulphate	7646-93-7
troclosene sodium	2893-78-9
Sodium carbonate	497-19-8
Dipotassium peroxodisulphate	7727-21-1
Magnesium carbonate	546-93-0

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 : This product is regulated under the Federal Insecticide, Fungicide and Rodenticide Act. It must be used for purposes consistent with its labeling.

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. .