

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: RENDEZVOUS SPA SPECIALTIES DELUXE SPA  
CARE KIT BROMINE - Rendezvous Spa Specialties Activate**

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Advantis Technologies</b> 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004 United States of America	REVISION DATE:	05/26/2015
	SUPERCEDES:	07/30/2012
	MSDS Number:	000000024509
	SYNONYMS:	Potassium peroxymonosulfate
	CHEMICAL FAMILY:	None
	DESCRIPTION / USE	Water treatment chemical
	FORMULA:	None established

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Acute toxicity (Oral)	:	Category 4
Skin corrosion	:	Category 1B
Skin sensitisation	:	Category 1
Serious eye damage	:	Category 1

### GHS Label element

Hazard pictograms	:	
-------------------	---	---

Signal word	:	Danger
-------------	---	--------

Hazard statements	:	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction.
-------------------	---	--

Precautionary statements : **Prevention:**  
 P260 Do not breathe vapours.  
 P264 Wash hands thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P272 Contaminated work clothing should not be allowed out of the workplace.  
 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.  
 P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
 P362 + P364 Take off contaminated clothing and wash it 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.

**Storage:**  
 P405 Store locked up.

**Disposal:**  
 P501 Dispose of contents/container in accordance with local regulation.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
Pentapotassium bis(peroxymonosulphate) bis(sulphate)	70693-62-8	86 - 96
POTASSIUM PEROXYDISULFATE	7727-21-1	0 - 5
Tetra[carbonato(2-)]dihydropentamagnesium	7760-50-1	1 - 2

Active Ingredient in this composition is POTASSIUM PEROXYMONOSULFATE, CAS. No. 10058-23-8, Concentration: 43-47% (Typical 45%)

---

## SECTION 4. FIRST AID MEASURES

General Advice:	Call a physician immediately.
Inhalation:	IF INHALED: Remove individual to fresh air. Seek medical attention if breathing becomes difficult or if respiratory irritation develops. If not breathing, give artificial respiration. Call for medical assistance.
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
Autoignition Temperature:	Not applicable
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. Use water to cool containers.
Hazardous Combustion Products:	Carbon monoxide, Carbon dioxide
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: 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:	Keep people away from and upwind of spill/leak.
Water Release:	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. Do not place spill materials back in their original containers.
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.
Incompatible Materials for Storage:	Refer to Section 10, "Incompatible Materials."
Empty Container Warning:	Empty containers retain hazardous residue, dispose of accordingly.

## 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., Wear a NIOSH approved N95 respirator.
Skin Protection :	Wear impervious gloves 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)	TWA	0.1 mg/m <sup>3</sup>	ACGIH (02 2014)

[as persulfate]

Active Ingredient in this composition is POTASSIUM PEROXYMONOSULFATE, CAS. No. 10058-23-8,  
Concentration: 43-47% (Typical 45%)

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	solid
Form	solid
Color:	white
Odor:	None
Molecular Weight:	None established
pH :	1.4
	( ) 10% solution
Boiling Point:	Not applicable
Melting point/freezing point	Not applicable
Density	no data available
Bulk Density:	( ) no data available
Vapor Pressure:	Not applicable
Vapor Density:	no data available
Viscosity:	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:	Product has oxidizing properties.
Volatiles, % by vol.:	no data available
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	Not applicable

## 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
Chemical Incompatibility:	Halides, Heavy metals, Cyanides, Oxidizing agents
Hazardous Decomposition Products:	Decomposes when heated or dampened, releasing oxygen and heat, Oxides of sulfur
Decomposition Temperature:	no data available

## SECTION 11. TOXICOLOGICAL INFORMATION

### Component Animal Toxicology

#### Oral LD50 value:

Pentapotassium                    LD50    500 mg/kg    Rat  
bis(peroxymonosulphat  
e) bis(sulphate)

### Component Animal Toxicology

#### Dermal LD50 value:

Pentapotassium                    LD50    > 2,000 mg/kg    Rat  
bis(peroxymonosulphat  
e) bis(sulphate)

### Component Animal Toxicology

#### Inhalation LC50 value:

### Product Animal Toxicity

Oral LD50 value:    LD50    = 2,000 mg/kg    Rat

Dermal LD50 value:    LD50    > 11,000 mg/kg    Rabbit

Inhalation LC50                    LC50 4 h    > 5.0 mg/l    Rat  
value:

Skin Irritation:                    Corrosive to skin

Eye Irritation:                    Corrosive to eyes

Skin Sensitization:                Possible skin sensitizer based on animal tests

Acute Toxicity:                    This product is corrosive to all tissues contacted and upon inhalation, may cause irritation to mucous membranes and 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.

Mutagenicity:                    Not known or reported to be mutagenic.

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 - Product:

Oncorhynchus mykiss (rainbow    -    96 h LC50 = 53 mg/l  
trout)

Daphnia magna (Water flea)    -    48 h EC50= 3.5 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 : If this product becomes a waste, it will be a nonhazardous waste.

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

**SECTION 14. TRANSPORT INFORMATION****DOT**

UN number : 3260  
 Description of the goods : Corrosive solid, acidic, inorganic, n.o.s.  
 : (Potassium hydrogenperoxomonosulphate)  
 Class : 8  
 Packing group : II  
 Labels : 8  
 Emergency Response : 154  
 Guidebook Number

**TDG**

UN number : 3260  
 Description of the goods : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.  
 : (Potassium hydrogenperoxomonosulphate)  
 Class : 8  
 Packing group : II  
 Labels : 8

**IATA**

UN number : 3260  
 Description of the goods : Corrosive solid, acidic, inorganic, n.o.s.  
 (Potassium hydrogenperoxomonosulphate)  
 Class : 8  
 Packing group : II  
 Labels : 8  
 Packing instruction (cargo aircraft) : 863  
 Packing instruction (passenger aircraft) : 859  
 Packing instruction (passenger aircraft) : Y844

**IMDG-CODE**

UN number : 3260  
 Description of the goods : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.  
 (Potassium hydrogenperoxomonosulphate)  
 Class : 8  
 Packing group : II  
 Labels : 8  
 EmS Number 1 : F-A  
 EmS Number 2 : S-B

---

## 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 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

Dipotassium peroxodisulphate	7727-21-1
---------------------------------	-----------

##### Pennsylvania Right To Know

pentapotassium bis(peroxymonosulphate) bis(sulphate)	70693-62-8
Dipotassium peroxodisulphate	7727-21-1

##### New Jersey Right To Know

pentapotassium bis(peroxymonosulphate) bis(sulphate)	70693-62-8
Dipotassium peroxodisulphate	7727-21-1
tetra[carbonato(2- )dihydroxypentamagnesium	7760-50-1

##### 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: 2, 3, 8, 11  
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. .

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: RENDEZVOUS SPA SPECIALTIES DELUXE SPA CARE KIT BROMINE - Rendezvous Spa Specialties Clarifier**

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Advantis Technologies</b> 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004 United States of America	REVISION DATE:	05/26/2015
	SUPERCEDES:	06/22/2009
	MSDS Number:	000000024429
	SYNONYMS:	
	CHEMICAL FAMILY:	None
	DESCRIPTION / USE	None established
	FORMULA:	None established

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Not a dangerous substance according to GHS.

### GHS Label element

Not a dangerous substance according to GHS.

### Other hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
2-PROPEN-1-AMINIUM, N,N-DIMETHYL- N-2-PROPENYL-, C	26062-79-3	0 - 7

## 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: 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.

## SECTION 5. FIREFIGHTING MEASURES

Flammability Summary (OSHA): Combustible above 93 deg. C / 200 deg. F.

### Flammable Properties

Fire / Explosion Hazards:	May be ignited by open flame.
Extinguishing Media:	Water fog Carbon dioxide (CO <sub>2</sub> ) Foam Dry powder
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.
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: Use the personal protective equipment recommended in Section 8 and a NIOSH approved self-contained breathing apparatus.

### Spill Mitigation Procedures

Air Release:	Keep people away from and upwind of spill/leak.
Water Release:	solubleIf 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).Do not contaminate ponds, waterways or ditches with chemical or used container.
Additional Spill Information :	Prevent further leakage or spillage if safe to do so. Use personal protective equipment as required. Evacuate personnel to safe areas. Remove all sources of ignition.

## 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 vapours, mist or gas.

Storage: Store in a cool, dry and well ventilated place. Isolate from incompatible materials. Do not freeze.

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

## SECTION 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.

Skin Protection : Impervious gloves

Eye Protection: Safety glasses with side-shields

Protective Clothing Type: impervious clothing

### **Components with workplace control parameters**

no data available

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	liquid
Form	No data.
Color:	blue
Odor:	No data.
Molecular Weight:	None established
pH :	2.0 - 3.0
	()
Boiling Point:	212 °F (100 °C)
Melting point/freezing point	No data
Bulk Density:	()
	no data available
Vapor Pressure:	no data available
Vapor Density:	not determined
Viscosity:	no data available
Solubility in Water:	soluble in cold water
Partition coefficient n-octanol/water:	No data.
Evaporation Rate:	No data
Oxidizing:	None established

Volatiles, % by vol.:	no data available
VOC Content	no data available This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM 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.
Conditions to Avoid:	Heat, flames and sparks.
Chemical Incompatibility:	Oxidizing agents
Hazardous Decomposition Products:	Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride
Decomposition Temperature:	No data

## SECTION 11. TOXICOLOGICAL INFORMATION

### Component Animal Toxicology

#### Oral LD50 value:

2-PROPEN-1-AMINIUM, N,N-DIMETHYL-N-2-PROPENYL-, C  
LD50 > 5,000 mg/kg Rat

### Component Animal Toxicology

#### Dermal LD50 value:

2-PROPEN-1-AMINIUM, N,N-DIMETHYL-N-2-PROPENYL-, C  
LD50 > 20,000 mg/kg Rabbit

### Component Animal Toxicology

#### Inhalation LC50 value:

2-PROPEN-1-AMINIUM, N,N-DIMETHYL-N-2-PROPENYL-, C  
No data

### Product Animal Toxicity

Oral LD50 value: LD50 > 5,000 mg/kg Rat  
Dermal LD50 value: LD50 > 2,000 mg/kg Rabbit  
Inhalation LC50 value: no data available  
Skin Irritation: Not expected to cause irritation.  
Eye Irritation: Not expected to cause irritation.  
Skin Sensitization: Not believed to be sensitising to skin.

Acute Toxicity:	There are no known or reported target organ effects from acute exposure.
Subchronic / Chronic Toxicity:	There are no known or reported effects from chronic exposure.
Reproductive and Developmental Toxicity:	Not known or reported to cause reproductive or developmental toxicity.
Mutagenicity:	Not known or reported to be mutagenic.
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: No data for product. Individual constituents are as follows:

Ecological Toxicity Values for: 2-PROPEN-1-AMINIUM, N,N-DIMETHYL-N-2-PROPENYL-, C

Bluegill sunfish	-	96 h LC50 = 0.82 - 1.3 mg/l, (40% Solution)
Rainbow trout (Salmo gairdneri),	-	96 h LC50 0.37 mg/l (40% Solution)
Daphnia magna,	-	48 h LC50= 0.9 mg/l (In clear water), (40% Solution)
Daphnia magna,	-	48 h LC50= 1.2 - 2.5 mg/l, (In 50 ppm clay suspension), (40% Solution)
Daphnia magna,	-	48 h LC50= 24.8 mg/l (In 1000 ppm clay suspension), (40% Solution)

## 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 liquid 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**

**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium hypochlorite	7681-52-9	100	

**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**

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

The following Hazardous Chemicals are 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**

No components are subject to the Pennsylvania Right to know act

**New Jersey Right To Know**

2-Propen-1-aminium, N,N- 26062-79-3  
dimethyl-N-2-propenyl-,  
chloride, homopolymer

**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: First formulated version in SAP.

---

RENDEZVOUS SPA SPECIALTIES DELUXE SPA CARE KIT BROMINE

REVISION DATE: 05/26/2015

Page 17 of 87

## SAFETY DATA SHEET

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. .

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: RENDEZVOUS SPA SPECIALTIES DELUXE SPA CARE KIT BROMINE - Rendezvous Spa Specialties Foam Out**

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Advantis Technologies</b> <b>1200 Bluegrass Lakes Parkway</b> <b>Alpharetta, GA 30004</b> <b>United States of America</b>	REVISION DATE:	05/27/2015
	SUPERCEDES:	06/01/2009
	MSDS Number:	000000024436
	SYNONYMS:	
	CHEMICAL FAMILY:	None
	DESCRIPTION / USE	None established
	FORMULA:	None established

**SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Not a dangerous substance according to GHS.

**GHS Label element**

Not a dangerous substance according to GHS.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
Dimethicone	63148-62-9	1 - 6

**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: 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.

## SECTION 5. FIREFIGHTING 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: 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.

## 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: Keep people away from and upwind of spill/leak.

Water Release: solubleIf 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).Do not contaminate ponds, waterways or ditches with chemical or used container.

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 vapours, mist or gas.

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: 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.  
 Skin Protection : Impervious gloves  
 Eye Protection: Safety glasses with side-shields  
 Protective Clothing Type: impervious clothing

### Components with workplace control parameters

no data available

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	liquid
Form	No data.
Color:	No data.
Odor:	No data.
Molecular Weight:	None established
pH :	6.0 - 7.0 ( )
Boiling Point:	212 °F (100 °C)
Melting point/freezing point	No data
Bulk Density:	( ) no data available
Vapor Pressure:	no data available
Vapor Density:	no data available
Viscosity:	no data available
Solubility in Water:	soluble in cold water
Partition coefficient n-octanol/water:	No data.
Evaporation Rate:	no data available
Oxidizing:	None established
Volatiles, % by vol.:	no data available
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.  
 Conditions to Avoid: Heat  
 Chemical Incompatibility: Oxidizing agents  
 Hazardous Decomposition Products: Carbon oxides, Silicone  
 Decomposition Temperature: No data

## SECTION 11. TOXICOLOGICAL INFORMATION

### Component Animal Toxicology

#### Oral LD50 value:

Dimethicone LD50 > 5,000 mg/kg Rat

### Component Animal Toxicology

#### Dermal LD50 value:

Dimethicone LD50 > 2,000 mg/kg Rabbit

### Component Animal Toxicology

#### Inhalation LC50 value:

Dimethicone Inhalation LC50 1 h > 44 mg/l Rat

### Product Animal Toxicity

Oral LD50 value: LD50 Believed to be > 5,000 mg/kg Rat

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

Inhalation LC50 value: LC50 1 h Believed to be > 44 mg/l Rat

Skin Irritation: Not expected to cause irritation.  
 Eye Irritation: Not expected to cause irritation.  
 Skin Sensitization: This material is not known or reported to be a skin or respiratory sensitizer. The active ingredient in this product tested negative for skin sensitization in humans and laboratory animals.

Dimethicone This material tested negative for skin sensitization in humans and laboratory animals.

Acute Toxicity: There are no known or reported target organ effects from acute exposure.  
 Subchronic / Chronic Toxicity: Not known or reported to cause subchronic or chronic toxicity.

Reproductive and Developmental Toxicity: No reproductive or developmental risk to humans is expected from exposure to this product. The active ingredient in this product has been tested in laboratory animals and no evidence of teratogenicity or fetotoxicity was seen.

Dimethicone This chemical has been tested in laboratory animals and no evidence of teratogenicity or fetotoxicity was seen.

Mutagenicity:	Not known or reported to be mutagenic. The active ingredient in this product has been tested in a battery of mutagenicity assays and was found to be non-mutagenic under the conditions of the tests.
Dimethicone	This chemical has been shown to be non-mutagenic based on a battery of assays.
Carcinogenicity:	This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA. The carcinogenicity of the active ingredient in this product has been evaluated through animal study and it was found not to be carcinogenic.
Dimethicone	The carcinogenicity has been evaluated through animal study and it was found not to be carcinogenic.

## SECTION 12. ECOLOGICAL INFORMATION

Overview: Practically non-toxic to fish and other aquatic organisms. The acute 96 hr. LC50 of the active ingredient in this product to fathead minnows is > 1,000 mg/l.

### Ecological Toxicity Values for: Dimethicone

Pimephales promelas (fathead minnow) - 96 h LC50 > 1,000 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 liquid 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

#### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)

**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 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:

Formaldehyde

50-00-0



The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Formaldehyde	50-00-0	0.04 %
--------------	---------	--------

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

Formaldehyde	50-00-0
--------------	---------

#### Pennsylvania Right To Know

Formaldehyde	50-00-0
--------------	---------

#### New Jersey Right To Know

Dimethicone	63148-62-9
-------------	------------

#### California Prop 65

WARNING! This product contains a chemical known to the State of California to cause cancer.

Formaldehyde	50-00-0
--------------	---------

#### 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.

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: 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. .

FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL:

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®:

FOR ALL SDS QUESTIONS & REQUESTS, CALL:

1-800-654-6911 (OUTSIDE  
USA: 1-423-780-2970)

1-800-424-9300 (OUTSIDE  
USA: 1-703-527-3887)

1-800-511-MSDS (OUTSIDE  
USA: 1-423-780-2347)

PRODUCT NAME: **RENDEZVOUS SPA SPECIALTIES DELUXE SPA CARE KIT BROMINE - Rendezvous Spa Specialties Protect Plus**

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Advantis Technologies</b> 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004 United States of America	REVISION DATE:	05/27/2015
	SUPERCEDES:	10/22/2009
	MSDS Number:	000000024459
	SYNONYMS:	
	CHEMICAL FAMILY:	None
	DESCRIPTION / USE	None established
	FORMULA:	None established

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Eye irritation	:	Category 2B
Specific target organ toxicity - single exposure	:	Category 3 (Respiratory system)

### GHS Label element

Hazard pictograms



Signal word

: Warning

Hazard statements

: H320 Causes eye irritation.  
H335 May cause respiratory irritation.

Precautionary statements

: **Prevention:**  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
**Response:**  
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 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.

**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>
GLYCINE, N- (2-BIS(CARBOXYMETHYL)AMINO)ETHYL)-N-2-HYDROXYETHYL)-, Trisodium Salt	139-89-9	5 - 15
Citric Acid	77-92-9	0 - 9
Sodium carbonate	497-19-8	0 - 6
Trisodium nitrilotriacetate	5064-31-3	0 - 5

---

### 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: 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.

---

### SECTION 5. FIREFIGHTING 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:	0 - 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.

---

## 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:

Vapors may be suppressed by the use of water fog.

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:

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). After removal, flush contaminated area thoroughly with water. Avoid runoff into storm sewers and ditches which lead to waterways.

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 vapours, mist or gas.

Storage: Store in a cool, dry and well ventilated place. Isolate from incompatible materials. Do not freeze.

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

---

## SECTION 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., A NIOSH approved air purifying respirator with organic vapor cartridge and N95 particulate filter. 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 : Impervious gloves

Eye Protection: Safety glasses with side-shields

Protective Clothing Type: impervious clothing

General Protective Measures: Ensure that eyewash stations and safety showers are close to the workstation location.

#### Components with workplace control parameters

no data available

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	liquid
Form	No data.
Color:	No data.
Odor:	No data.
Molecular Weight:	None established
pH :	7.0 - 9.0 ( )
Boiling Point:	212 °F (100 °C)
Melting point/freezing point	No data
Density	no data available
Bulk Density:	( ) no data available
Vapor Pressure:	no data available
Vapor Density:	> 1
Viscosity:	no data available
Solubility in Water:	soluble in cold water
Partition coefficient n-octanol/water:	No data.
Evaporation Rate:	No data
Oxidizing:	None established
Volatiles, % by vol.:	no data available
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.  
 Conditions to Avoid: Heat, Avoid freezing.  
 Chemical Incompatibility: Strong oxidizing agents, Aluminium  
 Hazardous Decomposition Products: Oxides of nitrogen, Carbon dioxide (CO<sub>2</sub>), Ammonia  
 Decomposition Temperature: No data

## SECTION 11. TOXICOLOGICAL INFORMATION

### Component Animal Toxicology

#### Oral LD50 value:

GLYCINE, N- (2-BIS(CARBOXMETHYL)AMINO)ETHYL)-N-2-HYDROXYETHYL)-, Trisodium Salt	LD50	Approximately 10,000 mg/kg	Rat
Citric Acid	LD50	= 3,000 mg/kg	Rat
Sodium carbonate	LD50	= 4,090 mg/kg	Rat
Trisodium nitrilotriacetate		> 1,100.0 mg/kg	Rat

### Component Animal Toxicology

#### Dermal LD50 value:

GLYCINE, N- (2-BIS(CARBOXMETHYL)AMINO)ETHYL)-N-2-HYDROXYETHYL)-, Trisodium Salt		no data available	
Citric Acid	LD50	Believed to be > 2,000 mg/kg	Rabbit
Sodium carbonate	LD50	Believed to be > 2,000 mg/kg	Rabbit

### Component Animal Toxicology

#### Inhalation LC50 value:

GLYCINE, N- (2-BIS(CARBOXMETHYL)AMINO)ETHYL)-N-2-HYDROXYETHYL)-, Trisodium Salt		Rats exposed for 8 hours to an unknown concentration of the test substance resulted in no deaths and no clinical signs of toxicity observed in the animals.	
Citric Acid		no data available	
Sodium carbonate	LC50 1 h	=	4.6 mg/l Rat
Trisodium nitrilotriacetate	LC50 4 h	>	5 mg/l Rat

### Product Animal Toxicity

Oral LD50 value: LD50 Believed to be > 5,000 mg/kg Rat

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

Inhalation LC50 no data available

value:

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.

GLYCINE, N- (2-  
BIS(CARBOXMETHYL)AMINO)ETHY  
L)-N-2-HYDROXYETHYL)-,  
Trisodium Salt

A similar product was found to be a negative skin sensitizer in the Guinea pig maximization method test.

Trisodium nitrilotriacetate

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.

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.

Citric Acid

This chemical has been tested in laboratory animals and there was no evidence of reproductive toxicity or teratogenicity.

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.

GLYCINE, N- (2-  
BIS(CARBOXMETHYL)AMINO)ETHY  
L)-N-2-HYDROXYETHYL)-,  
Trisodium Salt

This product was determined to be non-mutagenic in the Ames assay.

Citric Acid

This product was determined to be non-mutagenic in the Ames assay. It was also shown to be negative in the Dominant lethal assay.

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:	The International Agency for Research on Cancer (IARC) has classified this product or a component of this product as a Group 2B substance, Possibly Carcinogenic to Humans.
Citric Acid	The carcinogenicity has been evaluated through animal study and it was found not to be carcinogenic.
Trisodium nitrilotriacetate	The International Agency for Research on Cancer (IARC) has classified this product or a component of this product as a Group 2B substance, Possibly Carcinogenic to Humans.

## SECTION 12. ECOLOGICAL INFORMATION

Overview: Practically non- toxic to fish and other aquatic organisms.

### Ecological Toxicity Values - Product:

- EC50 Believed to be approximately 1,500 mg/l (calculated)

### Ecological Toxicity Values for: GLYCINE, N- (2-BIS(CARBOXYMETHYL)AMINO)ETHYL)-N-2-HYDROXYETHYL)-, Trisodium Salt

- Leuciscus idus (Golden orfe) - static test 96 h LC50 > 2,200 mg/l
- Daphnia magna (Water flea) - static test 48 h EC50 > 500 mg/l

### Ecological Toxicity Values for: Citric Acid

- Lepomis macrochirus (Bluegill sunfish) - (static). 96 h LC50 = 1,516 mg/l
- Daphnia magna (Water flea) - 72 h EC50 Approximately 120 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: Trisodium nitrilotriacetate

- Lepomis macrochirus (Bluegill sunfish) - 96 h LC50 = 198 mg/l
- Pimephales promelas (fathead minnow) - 96 h LC50 = 127 mg/l
- Oncorhynchus mykiss (rainbow trout) - 96 h LC50 = 98 mg/l
- Daphnia magna (Water flea) - 48 h LC50 = 560 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 liquid waste, it should be disposed of in accordance with local, state and federal regulations.

## SECTION 14. TRANSPORT INFORMATION

### DOT

Not dangerous goods

### TDG

UN number : 3267  
 Description of the goods : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.  
 (Glycine, N-[2-[bis(carboxymethyl)amino]ethyl]-N-(2-hydroxyethyl)-, trisodium salt, Trisodium nitrilotriacetate)  
 Class : 8  
 Packing group : II  
 Labels : 8

### IATA

UN number : 3267  
 Description of the goods : Corrosive liquid, basic, organic, n.o.s.  
 (Glycine, N-[2-[bis(carboxymethyl)amino]ethyl]-N-(2-hydroxyethyl)-, trisodium salt, Trisodium nitrilotriacetate)  
 Class : 8  
 Packing group : II  
 Labels : 8  
 Packing instruction (cargo aircraft) : 855  
 Packing instruction (passenger aircraft) : 851  
 Packing instruction (passenger aircraft) : Y840

**IMDG-CODE**

UN number : 3267  
 Description of the goods : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.  
 (Glycine, N-[2-[bis(carboxymethyl)amino]ethyl]-N-(2-hydroxyethyl)-, trisodium salt, Trisodium nitrilotriacetate)  
 Class : 8  
 Packing group : II  
 Labels : 8  
 EmS Number 1 : F-A  
 EmS Number 2 : S-B

---

**SECTION 15. REGULATORY INFORMATION**
**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium hydroxide	1310-73-2	1000	

**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 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:

The following Hazardous Chemicals are 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

Trisodium nitrilotriacetate	5064-31-3
-----------------------------	-----------

#### Pennsylvania Right To Know

Glycine, N-[2-[bis(carboxymethyl)amino]ethyl]-N-(2-hydroxyethyl)-, trisodium salt	139-89-9
Citric acid	77-92-9

#### New Jersey Right To Know

Glycine, N-[2-[bis(carboxymethyl)amino]ethyl]-N-(2-hydroxyethyl)-, trisodium salt	139-89-9
Citric acid	77-92-9
Sodium carbonate	497-19-8

#### 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: 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. .

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: RENDEZVOUS SPA SPECIALTIES DELUXE SPA  
CARE KIT BROMINE - Rendezvous Spa Specialties Natural Clear**

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Advantis Technologies</b> <b>1200 Bluegrass Lakes Parkway</b> <b>Alpharetta, GA 30004</b> <b>United States of America</b>	REVISION DATE:	05/26/2015
	SUPERCEDES:	06/12/2009
	MSDS Number:	000000024483
	SYNONYMS:	
	CHEMICAL FAMILY:	None
	DESCRIPTION / USE	None established
FORMULA:	None established	

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Not a dangerous substance according to GHS.

### GHS Label element

Not a dangerous substance according to GHS.

### Other hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
No ingredients are hazardous according to OSHA criteria.		

## 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: 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.

---

## 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.
Extinguishing Media:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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.

---

## 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:	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). Do not contaminate ponds, waterways or ditches with chemical or used container.
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:	Avoid contact with skin, eyes and clothing. Do not take internally. If in eyes or on skin, rinse well with water.
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: 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.  
 Skin Protection : Impervious gloves  
 Eye Protection: Safety glasses with side-shields  
 Protective Clothing Type: impervious clothing

No ingredients are hazardous according to OSHA criteria.

### **Components with workplace control parameters**

no data available

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	liquid
Form	No data.
Color:	No data.
Odor:	No data.
Molecular Weight:	None established
pH :	6.0 - 8.0
	()
Boiling Point:	212 °F (100 °C)
Melting point/freezing point	No data
Density	Not applicable
Bulk Density:	()
	no data available
Vapor Pressure:	no data available
Vapor Density:	Not applicable
Viscosity:	no data available
Solubility in Water:	soluble in cold water
Partition coefficient n-octanol/water:	No data
Evaporation Rate:	No data
Oxidizing:	None established
Volatiles, % by vol.:	no data available
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.  
Conditions to Avoid: Heat  
Chemical Incompatibility: None known.  
Hazardous Decomposition Products: None known  
Decomposition Temperature: No data

---

## SECTION 11. TOXICOLOGICAL INFORMATION

### Product Animal Toxicity

Oral LD50 value: LD50 Believed to be > 5,000 mg/kg Rat  
Dermal LD50 value: LD50 Believed to be > 2,000 mg/kg Rabbit  
Inhalation LC50 value: LC50 no data available

Skin Irritation: Not expected to cause irritation.  
Eye Irritation: Not Irritating to the Eyes  
Skin Sensitization: This material is not known or reported to be a skin or respiratory sensitizer.

Acute Toxicity: There are no known or reported target organ effects from acute exposure.  
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.

Mutagenicity: Not known or reported to be mutagenic.

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: There is no data available for this product.

---

## 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 SOCM1 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:

The following Hazardous Chemicals are 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**

No components are subject to the Pennsylvania Right to know act

**New Jersey Right To Know**

No components are subject to the New Jersey Right to know act

**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: 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. .

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: RENDEZVOUS SPA SPECIALTIES DELUXE SPA CARE KIT BROMINE - Rendezvous Spa Specialties pH Down**

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Advantis Technologies</b> 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004 United States of America	REVISION DATE:	05/26/2015
	SUPERCEDES:	05/28/2009
	MSDS Number:	000000024499
	SYNONYMS:	
	CHEMICAL FAMILY:	None
	DESCRIPTION / USE	None established
	FORMULA:	None established

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Serious eye damage : Category 1

### GHS Label element

Hazard pictograms :



Signal word : Danger

Hazard statements : H318 Causes serious eye damage.

Precautionary statements :

**Prevention:**  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor/ physician.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
SULFURIC ACID, MONOSODIUM SALT	7681-38-1	92 - 98
SULFURIC ACID DISODIUM SALT	7757-82-6	2 - 6

**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. If not breathing, give artificial respiration. Call for medical assistance.
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 if irritation develops.
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
Autoignition Temperature:	No data
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.

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

Upper Flammable / Explosive Limit, No data  
% in air:

Lower Flammable / Explosive Limit, No data  
% in air:

---

## 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:

Keep people away from and upwind of spill/leak.

Water Release:

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. Do not place spill materials back in their original containers.

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. Avoid contact with water, or moist air.

Storage: Store in a cool, dry and well ventilated place. Isolate from incompatible materials.

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

Do Not Store At temperatures 175 °C

Above:

Empty Container Warning: Empty containers retain hazardous residue, dispose of accordingly.

---

## 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 :	If dusting occurs, wear a NIOSH approved respirator., NIOSH approved full-face air purifying respirator with an N95 filter. 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 :	Avoid contact with skin. Impervious gloves
Eye Protection:	Chemical resistant goggles must be worn.
Protective Clothing Type:	Butyl rubber, Neoprene
General Protective Measures:	Ensure that eyewash stations and safety showers are close to the workstation location.

**Components with workplace control parameters**

no data available

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical State:	solid
Form	No data.
Color:	white
Odor:	No data.
Molecular Weight:	120 g/mol
pH :	0.0 - 1.0 ( ) 50 g/l
Boiling Point:	Not applicable
Melting point/freezing point	350.1 °F (176.7 °C)
Density	no data available
Bulk Density:	155 kg/m3 ( )
Vapor Pressure:	no data available
Vapor Density:	Not applicable
Viscosity:	no data available
Solubility in Water:	soluble
Partition coefficient n-octanol/water:	Not applicable
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 SOCOMI 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: Bases, Acids, Oxidizing agents  
 Hazardous Decomposition Products: Sulphur oxides  
 Decomposition Temperature: 315 °C

## SECTION 11. TOXICOLOGICAL INFORMATION

### Component Animal Toxicology

#### Oral LD50 value:

SULFURIC ACID, MONOSODIUM SALT LD50 Believed to be 2,800 mg/kg Rat  
 SULFURIC ACID DISODIUM SALT LD50 = 5,989 mg/kg Mouse  
 LD50 Believed to be > 10,000 mg/kg Rat

### Component Animal Toxicology

#### Dermal LD50 value:

SULFURIC ACID, MONOSODIUM SALT No data  
 SULFURIC ACID DISODIUM SALT no data available

### Component Animal Toxicology

#### Inhalation LC50 value:

SULFURIC ACID, MONOSODIUM SALT No data  
 SULFURIC ACID DISODIUM SALT no data available

### Product Animal Toxicity

Oral LD50 value: LD50 Believed to be > 3,000 mg/kg Rat  
Dermal LD50 value: LD50 Believed to be > 2,000 mg/kg Rabbit  
Inhalation LC50 value: no data available

Skin Irritation: DRY MATERIAL CAUSES MODERATE SKIN IRRITATION., WET MATERIAL CAUSES SKIN BURNS.

Eye Irritation: Corrosive to eyes

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

Acute Toxicity: This product is corrosive to all tissues contacted and upon inhalation, may cause irritation to mucous membranes and respiratory 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.

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

Mutagenicity: Not known or reported to be mutagenic.  
 SULFURIC ACID DISODIUM SALT This product was determined to be non-mutagenic in the Ames assay., This product has been shown to be negative for cell transformation in the Syrian hamster embryo (SA7/SHE) cell assay.

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: Slightly toxic to fish and other aquatic organisms.

### Ecological Toxicity Values for: SULFURIC ACID DISODIUM SALT

Lepomis macrochirus (Bluegill sunfish)	-	96 h LC50 = 12,750 mg/l
Pimephales promelas (fathead minnow)	-	96 h LC50 = 7,960 mg/l
Gambusia affinis (Mosquito fish)	-	96 h LC50 = 3,710 mg/l
Daphnia magna (Water flea)	-	48 h LC50= 2,564 mg/l
Ceriodaphnia dubia	-	48 h LC50= 3,080 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

Sodium sulphate 7757-82-6

#### Pennsylvania Right To Know

Sodium hydrogensulphate 7681-38-1  
Sodium sulphate 7757-82-6

#### New Jersey Right To Know

Sodium hydrogensulphate 7681-38-1  
Sodium sulphate 7757-82-6

#### 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: 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. .

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: RENDEZVOUS SPA SPECIALTIES DELUXE SPA CARE KIT BROMINE - Rendezvous Spa Specialties Broma-Start**

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Advantis Technologies</b> <b>1200 Bluegrass Lakes Parkway</b> <b>Alpharetta, GA 30004</b> <b>United States of America</b>	REVISION DATE:	06/09/2015
	SUPERCEDES:	05/22/2009
	MSDS Number:	000000024501
	SYNONYMS:	Sodium bromide
	CHEMICAL FAMILY:	None
	DESCRIPTION / USE	None established
FORMULA:	None established	

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Not a dangerous substance according to GHS.

### GHS Label element

Not a dangerous substance according to GHS.

### Other hazards

None known.

---

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
SODIUM BROMIDE (NABR)	7647-15-6	99 - 100

---

## 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. If not breathing, give artificial respiration. Call for medical assistance.
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: 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

Fire / Explosion Hazards:	Material will not ignite or burn.
Extinguishing Media:	Not Applicable. - Choose extinguishing media suitable for surrounding materials.
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.
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: Use the personal protective equipment recommended in Section 8 and a NIOSH approved self-contained breathing apparatus.

### Spill Mitigation Procedures

Air Release:	Keep people away from and upwind of spill/leak.
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. After removal, flush contaminated area thoroughly with water. Do not contaminate ponds, waterways or ditches with chemical or used container.
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 and well ventilated place. Keep containers tightly closed when not in use. Avoid creating dusts.
Incompatible Materials for Storage:	Refer to Section 10, "Incompatible Materials."

---

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

### Protective Equipment for Routine Use of Product

Respiratory Protection :	Respiratory protection not normally needed., If dusting occurs, wear a NIOSH approved respirator., Wear a NIOSH approved N95 respirator.
Skin Protection :	Wear impervious gloves to avoid skin contact.
Eye Protection:	Use safety glasses with side shields. Emergency eyewash should be provided in the immediate work area.
Protective Clothing Type:	Impervious

### **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:	102.9 g/mol

pH :	6.5 - 8.0 ( ) 1% solution
Boiling Point:	2,534 °F (1,390 °C)
Melting point/freezing point	1,391 °F (755 °C)
Density	no data available
Bulk Density:	( ) no data available
Vapor Pressure:	1.3 hPa 1483 °F (806 °C)
Vapor Density:	Not applicable
Viscosity:	Not applicable
Solubility in Water:	946 g/l 77 °F (25 °C)
Partition coefficient n-octanol/water:	No data
Evaporation Rate:	Not applicable
Oxidizing:	None established
Volatiles, % by vol.:	no data available
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.
Conditions to Avoid:	High temperatures, Exposure to moist air or water, Contact with incompatible substances
Chemical Incompatibility:	Strong oxidizing agents, Strong acids, Bromine trifluoride, Heavy metal salts
Hazardous Decomposition Products:	Hydrogen bromide, Sodium oxide
Decomposition Temperature:	No data

## SECTION 11. TOXICOLOGICAL INFORMATION

### Component Animal Toxicology

#### Oral LD50 value:

SODIUM BROMIDE LD50 = 3,500 mg/kg Rat  
(NABR)

### Component Animal Toxicology

#### Dermal LD50 value:

SODIUM BROMIDE LD50 Believed to be > 2,000 mg/kg Rabbit

RENDEZVOUS SPA SPECIALTIES DELUXE SPA CARE KIT BROMINE

REVISION DATE: 05/26/2015

Page 56 of 87



(NABR)

Component Animal ToxicologyInhalation LC50 value:

SODIUM BROMIDE (NABR) No data

Product Animal ToxicityOral LD50 value: LD50 = 3,500 mg/kg RatDermal LD50 value: LD50 Believed to be > 2,000 mg/kg RabbitInhalation LC50 value: no data available

Skin Irritation: May cause mild skin irritation.

Eye Irritation: May cause mild eye irritation.

Skin Sensitization: This material tested negative for skin sensitization in animals.

Acute Toxicity: May cause mild skin and eye irritation. Inhalation of dust may cause mild mucous membrane irritation (includes upper respiratory tract). Ingestion may cause gastrointestinal discomfort.

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

Reproductive and Developmental Toxicity: A three-generation reproduction study on the effects of sodium bromide in rats showed that at extremely high oral doses (4,800 mg/kg. and 19,200 mg/kg.) there was a marked decrease in the fertility of both the male and female rats. The effects of bromide on reproduction were reversible upon bromide withdrawal. Macroscopic examination of all pups born during the entire experimental period provided no evidence of birth defects.

Mutagenicity: Not known or reported to be mutagenic.

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: Practically non- toxic to fish and other aquatic organisms.

Ecological Toxicity Values for: SODIUM BROMIDE (NABR)

Pimephales promelas (fathead minnow)	- (nominal, static). 96 h LC50 = 16,479 mg/l
Daphnia magna,	- (nominal, static). 48 h LC50= 11,000 mg/l
Daphnia magna,	- (nominal, static). 48 h EC50= 5,800 mg/l
Green algae (Scenedesmus quadricauda),	- (nominal, static). 7 day toxicity threshold for mortality = 2,800 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.

Disposal Methods : As a nonhazardous 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

**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 : CAUTION!  
Hazard statements : Harmful if swallowed.  
Harmful if absorbed through skin.  
Harmful if inhaled.  
Causes moderate eye irritation.  
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 SOCM 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**

Sodium bromide 7647-15-6

**New Jersey Right To Know**

Sodium bromide 7647-15-6

**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: 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. .

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: RENDEZVOUS SPA SPECIALTIES DELUXE SPA CARE KIT BROMINE - Rendezvous Spa Specialties Bromine Float**

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION




<b>Advantis Technologies</b> 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004 United States of America	REVISION DATE:	05/26/2015
	SUPERCEDES:	12/09/2011
	MSDS Number:	000000024506
	SYNONYMS:	
	CHEMICAL FAMILY:	None
	DESCRIPTION / USE	None established
FORMULA:	None established	

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Oxidizing solids	:	Category 3
Acute toxicity (Oral)	:	Category 4
Skin irritation	:	Category 2
Skin sensitisation	:	Category 1
Serious eye damage	:	Category 1

### GHS Label element

Hazard pictograms	:	  
Signal word	:	Danger
Hazard statements	:	H272 May intensify fire; oxidiser. H302 Harmful if swallowed. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage.
Precautionary statements	:	<b>Prevention:</b> P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P220 Keep/Store away from clothing/ combustible materials. P221 Take any precaution to avoid mixing with combustibles. P261 Avoid breathing vapours. P264 Wash hands thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. <b>Response:</b> P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor/ physician. P321 Specific treatment (see supplemental first aid instructions on this label). P330 Rinse mouth. P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish. <b>Disposal:</b> P501 Dispose of contents/container in accordance with local regulation.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
2,4-IMIDAZOLIDINEDIONE, 1-BROMO-3-CHLORO-5,5-DIMETHYL	16079-88-2	54.2

2,4-IMIDAZOLIDINEDIONE, 1,3-DICHLORO-5,5-DIMETHYL	118-52-5	28.9
2,4-IMIDAZOLIDINEDIONE, 1,3-DICHLORO-5-ETHYL-5-METHYL	89415-87-2	15.9
SODIUM CHLORIDE	7647-14-5	1.0

## SECTION 4. FIRST AID MEASURES

General Advice:	Call a poison control center or doctor for treatment advice. For 24-hour emergency medical assistance, call Arch Chemical Emergency Action Network at 1-800-654-6911. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
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.
Notes to Physician:	Probable mucosal damage may contraindicate the use of gastric lavage.

## SECTION 5. FIREFIGHTING MEASURES

Flammability Summary (OSHA): Combustible above 93 deg. C / 200 deg. F.

### Flammable Properties

Flash Point: > 93.34 °C

Autoignition Temperature: No data

Fire / Explosion Hazards: May intensify fire; oxidiser. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Dust in air can be an explosion hazard.

Extinguishing Media: Water Foam Dry chemical

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: No data

Lower Flammable / Explosive Limit, % in air: No data

---

## 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: Keep people away from and upwind of spill/leak.

Water Release: If the product contaminates rivers and lakes or drains inform respective authorities.

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. Remove all sources of ignition.

---

## 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 ventilated location, away from sources of ignition or other incompatible conditions and chemicals. Keep container(s) closed.

Shelf Life Limitations: Maximum storage temperature:

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

Do Not Store At temperatures Above: 37 °C

Empty Container Warning: Empty containers retain hazardous residue, dispose of accordingly.



## 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., A NIOSH approved air purifying respirator with organic vapor cartridge and N95 particulate filter. 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 : Impervious gloves When exposure to high concentrations are prolonged or repeated use protective boots and apron in addition to gloves.

Eye Protection: Chemical resistant goggles must be worn.

Protective Clothing Type: impervious clothing, Neoprene

General Protective Measures: Ensure that eyewash stations and safety showers are close to the workstation location.

### Components with workplace control parameters

Components (CAS-No.)	Value	Control parameters	Basis (Update)
2,4-IMIDAZOLIDINEDIONE, 1,3-DICHLORO-5,5-DIMETHYL (118-52-5)	TWA	0.2 mg/m <sup>3</sup>	ACGIH (02 2014)
	STEL	0.4 mg/m <sup>3</sup>	ACGIH (02 2014)

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: solid  
 Form: tablet  
 Color: off-white  
 Odor: slight, pungent  
 Molecular Weight:  
 Relative density: No data

pH : 3.6  
 77.0 °F (25.0 °C) 10.0 g/l

Boiling Point:  
 Melting point/freezing point: 248 - 298 °F (120 - 148 °C)  
 Density: No data

Vapor Pressure: Not applicable  
 Vapor Density:  
 Viscosity: Not applicable

Solubility in Water:	5.4 g/l (@ 25 Deg. C)
Partition coefficient n-octanol/water:	Not applicable
Evaporation Rate:	Not applicable
Oxidizing:	Product has oxidizing properties.
Volatiles, % by vol.:	Not volatile
VOC Content	This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM 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, flames and sparks., Exposure to moisture
Chemical Incompatibility:	Strong acids and strong bases, Oxidizing agents, Reducing agents, Organic materials, Avoid moisture.
Hazardous Decomposition Products:	Carbon oxides, Bromine, Chlorine, Nitrogen
Decomposition Temperature:	No data

## SECTION 11. TOXICOLOGICAL INFORMATION

### Component Animal Toxicology

#### Oral LD50 value:

2,4- IMIDAZOLIDINEDIONE , 1-BROMO-3- CHLORO-5,5- DIMETHYL	LD50 = 929 mg/kg	Rat
2,4- IMIDAZOLIDINEDIONE , 1,3-DICHLORO-5,5- DIMETHYL	LD50 = 542 mg/kg	Rat
2,4- IMIDAZOLIDINEDIONE , 1,3-DICHLORO-5- ETHYL-5-METHYL	No data	
SODIUM CHLORIDE	LD50 = 3,000 mg/kg	Rat

### Component Animal Toxicology

#### Dermal LD50 value:

2,4- IMIDAZOLIDINEDIONE , 1-BROMO-3- CHLORO-5,5-	LD50 > 2,000 mg/kg	Rabbit
---	--------------------	--------

## DIMEMETHYL

2,4- LD50 > 20,000 mg/kg Rabbit  
IMIDAZOLIDINEDIONE

, 1,3-DICHLORO-5,5-  
DIMETHYL

2,4- No data  
IMIDAZOLIDINEDIONE

, 1,3-DICHLORO-5-  
ETHYL-5-METHYL

SODIUM CHLORIDE LD50 > 10,000 mg/kg Rabbit

Component Animal ToxicologyInhalation LC50 value:

2,4- Inhalation LCLo 1 h = 20 mg/l Rat  
IMIDAZOLIDINEDIONE

, 1,3-DICHLORO-5,5-  
DIMETHYL

2,4- No data  
IMIDAZOLIDINEDIONE

, 1,3-DICHLORO-5-  
ETHYL-5-METHYL

SODIUM CHLORIDE Inhalation LC50 1 h > 42 mg/l Rat

Product Animal Toxicity

Oral LD50 value: LD50 = 468 - 477 mg/kg Rat

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

Inhalation LC50 LC50 no data available

value:

Skin Irritation: This material is expected to be mildly to moderately irritating., Draize score, Rabbit = 3.84/8.0

Eye Irritation: Corrosive to eyes

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

2,4-IMIDAZOLIDINEDIONE, 1- Positive skin sensitizer, guinea pig - Buehler Method  
BROMO-3-CHLORO-5,5-  
DIMEMETHYL

2,4-IMIDAZOLIDINEDIONE, 1,3- Positive skin sensitizer, guinea pig - Buehler Method  
DICHLORO-5,5-DIMETHYL

Acute Toxicity: Corrosive to the eyes and mildly to moderately irritating to the skin and 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.

Mutagenicity: Not known or reported to be mutagenic.

2,4-IMIDAZOLIDINEDIONE, 1,3-DICHLORO-5,5-DIMETHYL

This product was determined to be non-mutagenic in the Ames assay.

2,4-IMIDAZOLIDINEDIONE, 1,3-DICHLORO-5-ETHYL-5-METHYL

Not known or reported to be mutagenic.

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

2,4-IMIDAZOLIDINEDIONE, 1,3-DICHLORO-5,5-DIMETHYL

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

2,4-IMIDAZOLIDINEDIONE, 1,3-DICHLORO-5-ETHYL-5-METHYL

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: Highly toxic to fish and other aquatic organisms.

### Ecological Toxicity Values - Product:

Oncorhynchus mykiss (rainbow trout)	- 96 h LC50 = 0.5 mg/l
Lepomis macrochirus (Bluegill sunfish)	- 96 h LC50 = 1.2 mg/l
Cyprinodon variegatus (sheepshead minnow)	- 96 h LC50 = 1.4 mg/l (as Br2)
Daphnia magna (Water flea)	- 48 h LC50= 0.4 mg/l
Mysid shrimp	- 96 h LC50= 0.93 mg/l
Crassostrea virginica (Eastern oyster)	- 96 h EC50= 0.84 mg/l (as Br2)

### Ecological Toxicity Values for: 2,4-IMIDAZOLIDINEDIONE, 1-BROMO-3-CHLORO-5,5-DIMEMETHYL

Oncorhynchus mykiss (rainbow trout)	- static test 96 h LC50 = 0.40 mg/l
Lepomis macrochirus (Bluegill sunfish)	- static test 96 h LC50 = 0.46 mg/l
Cyprinodon variegatus (sheepshead minnow)	- flow-through test 96 h LC50 = 1.2 mg/l
Daphnia magna (Water flea)	- static test 48 h EC50= 0.75 mg/l
Opossum Shrimp	- flow-through test 96 h LC50= 0.92 mg/l
Crassostrea virginica (Eastern oyster)	- flow-through test 96 h EC50= 1.1 mg/l
Colinus virginianus (Bobwhite quail)	- Oral LD50 = 1,839 mg/kg
Colinus virginianus (Bobwhite quail)	- Dietary LC50 > 5,620 ppm
Anas platyrhynchos (Mallard duck)	- Dietary LC50 > 5,000 ppm

## 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 meets the criteria of a hazardous waste as defined under 40 CFR 261 and would have the following EPA hazardous waste number: D001. As a hazardous solid waste, it must be disposed of in accordance with local, state and federal regulations.

## SECTION 14. TRANSPORT INFORMATION

### DOT

UN number : 3085  
 Description of the goods : Oxidizing solid, corrosive, n.o.s.  
 : (Halogenated hydantoins)  
 Class : 5.1  
 Packing group : III  
 Labels : 5.1 (8)  
 Emergency Response : 140  
 Guidebook Number

### TDG

UN number : 3085  
 Description of the goods : OXIDIZING SOLID, CORROSIVE, N.O.S.  
 : (Halogenated hydantoins)  
 Class : 5.1  
 Packing group : III  
 Labels : 5.1 (8)

### IATA

UN number : 3085  
 Description of the goods : Oxidizing solid, corrosive, n.o.s.  
 : (Halogenated hydantoins)  
 Class : 5.1  
 Packing group : III  
 Labels : 5.1 (8)  
 Packing instruction (cargo aircraft) : 563  
 Packing instruction (passenger aircraft) : 559  
 Packing instruction : Y545

(passenger aircraft)

**IMDG-CODE**

UN number : 3085  
Description of the goods : OXIDIZING SOLID, CORROSIVE, N.O.S.  
(Halogenated hydantoins)  
Class : 5.1  
Packing group : III  
Labels : 5.1 (8)  
EmS Number 1 : F-A  
EmS Number 2 : S-Q  
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 : Causes substantial but temporary eye injury.  
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 SOCM 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

1,3-dichloro-5,5-dimethylhydantoin	118-52-5
------------------------------------	----------

##### Pennsylvania Right To Know

1-bromo-3-chloro-5,5-dimethylimidazolidine-2,4-dione	16079-88-2
1,3-dichloro-5,5-dimethylhydantoin	118-52-5
1,3-dichloro-5-ethyl-5-methylimidazolidine-2,4-dione	89415-87-2

##### New Jersey Right To Know

1-bromo-3-chloro-5,5-dimethylimidazolidine-2,4-dione	16079-88-2
1,3-dichloro-5,5-dimethylhydantoin	118-52-5
1,3-dichloro-5-ethyl-5-methylimidazolidine-2,4-dione	89415-87-2

##### 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 is an EPA registered pesticide.

: Bromine Tabs Lonza (round) fast Dantobrom S

### 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: 14  
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. .



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: RENDEZVOUS SPA SPECIALTIES DELUXE SPA  
CARE KIT BROMINE - Rendezvous Spa Specialties pH Up**

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Advantis Technologies</b> 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004 United States of America	REVISION DATE:	05/26/2015
	SUPERCEDES:	06/01/2009
	MSDS Number:	000000024500
	SYNONYMS:	
	CHEMICAL FAMILY:	None
	DESCRIPTION / USE	None established
	FORMULA:	None established

## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Eye irritation : Category 2A

Acute toxicity (Inhalation) : Category 4

### GHS Label element

Hazard pictograms :



Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.  
H332 Harmful if inhaled.

Precautionary statements : **Prevention:**  
P261 Avoid breathing vapours.

P264 Wash hands thoroughly after handling.  
 P271 Use only outdoors or in a well-ventilated area.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312 Call a POISON CENTER or doctor/ physician if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

**Other hazards**

None known.

---

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
Sodium carbonate	497-19-8	99 - 100

---

### 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. If not breathing, give artificial respiration. Call for medical assistance.
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: Flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation develops.
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  
 Autoignition Temperature: 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.  
 Hazardous Combustion Products: Carbon monoxide, Carbon dioxide, Sodium oxide  
 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 dust generation. Do not place spill materials back in their original containers. After removal, flush contaminated area thoroughly with water.  
 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: Chemical resistant goggles must be worn.  
Protective Clothing Type: Natural rubber, Neoprene, Nitrile  
General Protective Measures: Ensure that eyewash stations and safety showers are close to the workstation location.

### 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 :	11.0 - 12.0 ( ) 10 g/l (as aqueous solution)
Boiling Point:	Decomposes before boiling
Melting point/freezing point	1,564.0 °F (851.1 °C)
Density	1.04 g/cm <sup>3</sup>
Bulk Density:	( ) no data available
Vapor Pressure:	Not applicable
Vapor Density:	Not applicable
Viscosity:	no data available
Solubility in Water:	320 g/l 77 °F (25 °C)
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 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 moist air or water

Chemical Incompatibility: Aluminum powder, Acids

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Sodium oxide

Decomposition Temperature: 400 °C

## SECTION 11. TOXICOLOGICAL INFORMATION

### Component Animal Toxicology

#### Oral LD50 value:

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 = 4,090 mg/kg Rat

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

Inhalation LC50 LC50 1 h = 4.6 mg/l Rat

#### value:

Skin Irritation: May cause mild skin irritation.

Eye Irritation: Moderate eye irritant

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

Acute Toxicity: Contact with the eyes and mucous membranes causes transient irritation. Minor corneal involvement may occur if product is not rinsed immediately from the eyes. Inhalation may cause irritation. Contact with skin causes irritation.

Subchronic / Chronic Toxicity: Damage to lungs has been observed in laboratory animals from repeated inhalation of high concentrations (70 mg/m<sup>3</sup>). This damage is characterized by thickening of the walls of the air sacs and a low grade of pulmonary inflammation. The risk to human health is low due to the high concentration required to produce the effect., Repeated or prolonged skin contact with this product may cause dermatitis and blistering.

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

Sodium carbonate

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

Mutagenicity: 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.

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: Practically non- toxic to fish and other aquatic organisms.

### 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

## 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

RENDEZVOUS SPA SPECIALTIES DELUXE SPA CARE KIT BROMINE

REVISION DATE: 05/26/2015

Page 78 of 87

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**

Sodium carbonate 497-19-8

**New Jersey Right To Know**

Sodium carbonate 497-19-8

**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: First formulated version in SAP.  
Major References : Available upon request.



## SAFETY DATA SHEET

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. .

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: RENDEZVOUS SPA SPECIALTIES DELUXE SPA  
CARE KIT BROMINE – 4 WAY TEST STRIPS**

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Arch Chemicals, Inc.</b> 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004	REVISION DATE:	06/11/2015
	SUPERCEDES:	
	MSDS Number:	000000025673
	SYNONYMS:	None
	CHEMICAL FAMILY:	Not Applicable/Mixture
	DESCRIPTION / USE	Water Testing Applications
	FORMULA:	NOT APPLICABLE

**SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Not a hazardous substance or mixture according to US Regulation 29 CFR 1910.1200 (HazCom 2012).

**GHS Label element**

Not a hazardous substance or mixture according to US Regulation 29 CFR 1910.1200 (HazCom 2012). Based on available data, the classification criteria are not met. Handle in accordance with good industrial hygiene and safety practice.

Precautionary statements : **Prevention:**  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P262 Do not get in eyes, on skin, or on clothing.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P270 Do not eat, drink or smoke when using this product.  
**Response:**  
P314 Get medical advice/ attention if you feel unwell.  
**Storage:**  
P410 + P403 Protect from sunlight. Store in a well-ventilated place.  
P402 + P404 Store in a dry place. Store in a closed container.  
**Disposal:**  
P501 Dispose of contents/container in accordance with local regulation.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**CAS OR CHEMICAL NAMECAS #% RANGE

This product is considered to be an article under OSHA 29 CFR 1910.1200.

**SECTION 4. FIRST AID MEASURES**

Inhalation: Not a likely route of exposure. 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: Not a likely route of exposure. IF IN EYES: Flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation develops.

Ingestion: Not a likely route of exposure. IF SWALLOWED: Immediately drink water to dilute. Seek medical attention if symptoms develop. 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

Autoignition Temperature: No data

Fire / Explosion Hazards: Material may be ignited only if preheated to high temperatures, for example in a fire.

Extinguishing Media: Choose extinguishing media suitable for surrounding materials.

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.

Hazardous Combustion Products: Carbon monoxide, Carbon dioxide

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: No extra protection required beyond that listed in Section 8. In case of fire, use normal fire fighting equipment.

### Spill Mitigation Procedures

Additional Spill Information : 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.

Storage: Keep tightly closed in a dry and cool place.

Incompatible Materials for Storage: Strong oxidizing agents

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

### Protective Equipment for Routine Use of Product

Respiratory Protection : Respiratory protection not normally needed.

Respirator Type : Not normally required.

Skin Protection : Wear impervious gloves to avoid skin contact.

Eye Protection: Use safety glasses with side shields.

Protective Clothing Type: Impervious

This product is considered to be an article under OSHA 29 CFR 1910.1200.

### **Components with workplace control parameters**

no data available

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	solid
Form	Test strips
Color:	white
Odor:	None
Molecular Weight:	Not applicable
pH :	Not applicable
Boiling Point:	Not applicable
Melting point/freezing point	Not applicable

Density:	No data
Vapor Pressure:	Not applicable
Vapor Density:	Not applicable
Viscosity:	Not applicable
Fat Solubility:	insoluble
Solubility in Water:	Insoluble
Partition coefficient n-octanol/water:	Not applicable
Evaporation Rate:	Not applicable
Oxidizing:	The substance has no oxidizing properties
Volatiles, % by vol.:	Not applicable
VOC Content	Not applicable
HAP Content	Not applicable

## SECTION 10. STABILITY AND REACTIVITY

Stability and Reactivity Summary:	Product is not sensitive to mechanical shock or impact. Product is not sensitive to electrical static discharge. Product will not undergo hazardous polymerization.
Conditions to Avoid:	High temperatures
Chemical Incompatibility:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon monoxide, Carbon dioxide
Decomposition Temperature:	Not applicable

## SECTION 11. TOXICOLOGICAL INFORMATION

### Product Animal Toxicity

<u>Oral LD50 value:</u>	LD50	Believed to be > 5,000 mg/kg	Rat
<u>Dermal LD50 value:</u>	LD50	Believed to be > 2,000 mg/kg	Rabbit
<u>Inhalation LC50 value:</u>		No data	

Skin Irritation:	Not expected to be irritating to the skin.
Eye Irritation:	This material is expected to be non-irritating.
Acute Toxicity:	There are no known or reported target organ effects from acute exposure.
Subchronic / Chronic Toxicity:	Not known or reported to cause subchronic or chronic toxicity.

Reproductive and Developmental Toxicity:	No reproductive or developmental risk to humans is expected from exposure to this product.
--	--

Mutagenicity:	Not known or reported to be mutagenic.
---------------	--

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: No aquatic toxicity data is available for this product.

---

## 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.

Disposal Methods : 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

---

## 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

### US State Regulations

#### 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 : Product is an article and thus, is exempt from TSCA regulations

**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

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. .