

FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL: 1-800-654-6911 (OUTSIDE
USA: 1-423-780-2970)
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®: 1-800-424-9300 (OUTSIDE
USA: 1-703-527-3887)
FOR ALL MSDS QUESTIONS & REQUESTS, CALL: 1-800-511-MSDS (OUTSIDE
USA: 1-423-780-2347)

PRODUCT NAME: LEISURE TIME BROMINATING GRANULAR

1. PRODUCT AND COMPANY IDENTIFICATION

Advantis Technologies
1400 Bluegrass Lakes Parkway
Alpharetta, GA 30004

REVISION DATE: 09/30/2013
SUPERCEDES: 07/29/2013

MSDS Number: 000000016204
SYNONYMS: None
CHEMICAL FAMILY: Not Applicable/Mixture
DESCRIPTION / USE: Swimming pool water treatment
FORMULA: Not Applicable/Mixture

2. HAZARDS IDENTIFICATION

OSHA Hazard
Classification:

Severe eye irritant, Potential reproductive / developmental hazard

Routes of Entry: Inhalation, skin, eyes, ingestion
Chemical Interactions: No known interactions
Medical Conditions Aggravated: Pre-existing skin disorders., Nervous system disorders

Human Threshold Response Data

Odor Threshold Not established.

Irritation Threshold Not established.

Hazardous Materials Identification System / National Fire Protection Association Classifications

<u>Hazard Ratings :</u>	<u>Health</u>	<u>Flammability</u>	<u>Physical / Instability</u>	<u>PPI / Special hazard.</u>
HMIS	2*	0	0	
NFPA	2	0	0	NFPA Oxidizer Class: Meets the criteria of an NFPA Class 1 Oxidizer

Immediate (Acute) Health Effects

Inhalation Toxicity:	Inhalation of dust may cause irritation to the mucous membranes of the respiratory tract. Any irritation would be transient with no permanent damage expected.
Skin Toxicity:	Skin contact may cause mild to moderate irritation consisting of transient redness and swelling. This irritant effect would not be expected to result in permanent damage. Not expected to be toxic from dermal contact.
Eye Toxicity:	May cause severe irritation, consisting of redness, swelling, and mucous membrane discharge to the conjunctiva. Visual impairment with corneal damage may occur. Visual hallucinations and disturbances of color vision have been noted from the action of bromides on the eye.
Ingestion Toxicity:	Ingestion may cause irritation of the gastrointestinal tract and gastrointestinal discomfort with any or all of the following symptoms: nausea, vomiting or diarrhea. Ingestion of large quantities of this product may result in central nervous system (CNS) depression. Slightly toxic if swallowed.
Acute Target Organ Toxicity:	Severe eye irritant

Prolonged (Chronic) Health Effects

Carcinogenicity:	This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.
Reproductive and Developmental Toxicity:	Possible reproductive or developmental hazard based on animal studies.
Inhalation:	There are no known or reported effects from chronic exposure except for effects similar to those experienced from acute exposure.
Skin Contact:	Repeated or prolonged skin contact may cause some individuals to develop skin rashes (bromoderma).
Ingestion:	Chronic ingestion may cause bromism, characterized by: central nervous system depression, ataxia (staggered gait), general muscular weakness and skin rashes.
Sensitization:	Not expected to be a skin sensitizer.
Chronic Target Organ Toxicity:	Central nervous system, Skin
Supplemental Health Hazard Information :	No additional health information available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
SODIUM DICHLORO-S-TRIAZINETRIONE	2893-78-9	
SODIUM BROMIDE (NABR)	7647-15-6	

4. FIRST AID MEASURES

Inhalation:	IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Skin Contact:	IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Eye Contact:	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Ingestion:	IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flammability Summary (OSHA):	Product is not known to be flammable, combustible, pyrophoric or explosive.
<u>Flammable Properties</u>	
Flash Point:	Not applicable
Autoignition Temperature:	No data
Fire / Explosion Hazards:	Strong oxidizer Will release oxygen when heated, intensifying a fire
Extinguishing Media:	Water only. Do not use dry extinguishers containing ammonium compounds.
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.

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

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

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

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. Begin monitoring for available chlorine and pH immediately.

Land Release: Do not contaminate spill material with any organic materials, ammonia, ammonium salts or urea. Clean up all spill material with clean, dry dedicated equipment and place in a clean dry container. Avoid dust generation. 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.

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 breathing dust from this material.

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." Refer to Section 10, "Incompatible Materials."

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation: Use local exhaust ventilation to maintain levels below exposure limits.

Protective Equipment for Routine Use of Product

Respiratory Protection : Wear a NIOSH approved respirator if levels above the exposure limits are possible.
 Respirator Type : A NIOSH approved full-face air purifying respirator equipped with combination chlorine/P100 cartridges. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit.
 Skin Protection : Wear impervious gloves to avoid skin contact.
 Eye Protection: Use chemical goggles. Emergency eyewash should be provided in the immediate work area.
 Protective Clothing Type: Impervious

Exposure Limit Data

<u>CHEMICAL NAME</u>	<u>CAS #</u>	<u>Name of Limit</u>	<u>Exposure</u>
SODIUM DICHLORO-S-TRIAZINETRIONE	2893-78-9	ARCH-ROEG*	0.5 mg/m3 TWA

*ARCH-ROEG: Arch Recommended Occupational Exposure Guideline.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	solid
Form	granular
Color:	White
Odor:	Halogen
Molecular Weight:	Not applicable/Mixture
Specific Gravity :	No data
pH :	4 - 5 Aqueous solution
Boiling Point:	Not applicable
Freezing Point:	No data
Melting Point:	Decomposes
Density:	50 - 60lb/ft ³
Vapor Pressure:	Not applicable
Vapor Density:	Not applicable
Viscosity:	No data
Fat Solubility:	No data
Solubility in Water:	Soluble
Partition coefficient n-octanol/water:	No data
Evaporation Rate:	Not applicable
Oxidizing:	Product has oxidizing properties.
Volatiles, % by vol.:	No data

VOC Content No data
HAP Content No data

10. STABILITY AND REACTIVITY

Stability and Reactivity Summary: Product will not undergo hazardous polymerization. Stable under normal conditions.

Conditions to Avoid: High temperatures, Exposure to moist air or water, Contamination

Chemical Incompatibility: This product is chemically reactive with many substances, including, e.g., other pool treatment products, acids, organics, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, corrosive, flammable or combustible materials.

Hazardous Decomposition Products: Chlorine, Nitrogen trichloride, Halogens, Carbon oxides

Decomposition Temperature: No data

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
(NABR)

Component Animal Toxicology

Inhalation LC50 value:

SODIUM BROMIDE No data
(NABR)

Product Animal Toxicity

Oral LD50 value: LD50 = 3,500 mg/kg Rat

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

Inhalation LC50 No data

value:

Skin Irritation: Skin contact may cause mild to moderate irritation consisting of transient redness and swelling. This irritant effect would not be expected to result in permanent damage.

Eye Irritation: Expected to be severely irritating.
 Skin Sensitization: This material tested negative for skin sensitization in animals.

Acute Toxicity: Severe eye irritant
 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.

12. ECOLOGICAL INFORMATION

Overview: No data for product. Individual constituents are as follows:

Ecological Toxicity Values for: SODIUM DICHLORO-S-TRIAZINETRIONE

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

Ecological Toxicity Values for: SODIUM BROMIDE (NABR)

Fathead minnow (Pimephales promelas),	-	(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

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.

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

Potential US EPA Waste Codes : D001

14. TRANSPORT INFORMATION

Land (US DOT): UN2465 DICHLOROISOCYANURIC ACID, DRY, MIXTURE 5.1 II
Water (IMDG): UN2465 DICHLOROISOCYANURIC ACID, DRY, MIXTURE, 5.1 II
MARINE POLLUTANT

Flash Point: Not applicable
Air (IATA): UN2465 DICHLOROISOCYANURIC ACID, DRY, MIXTURE, 5.1 II
Emergency Response Guide Number: ERG # 140

Transportation Notes: Material is not regulated as a marine pollutant for ground, rail car, or aircraft transportation within the USA if shipped in non bulk packages per marine pollutant exception 49 CFR 171.4(c).

EMS: F-A, S-Q

15. REGULATORY INFORMATION

UNITED STATES:

Toxic Substances Control Act (TSCA): The components of this product are listed on the TSCA Inventory of Existing Chemical Substances.

EPA Pesticide Registration Number: None established

FIFRA Listing of Pesticide Chemicals
(40 CFR 180):

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

Superfund Amendments and Reauthorization Act (SARA) Title III:

Hazard Categories Sections 311 / 312 (40 CFR 370.2):

Health Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard
Physical None

Emergency Planning & Community Right to Know (40 CFR 355, App. A):

Extremely Hazardous Substance Section 302 - Threshold Planning Quantity:

ZUS_SAR302 TPQ (threshold planning quantity) None established

Reportable Quantity (49 CFR 172.101, Appendix):

ZUS_CERCLA Reportable quantity None established
ZUS_SAR302 Reportable quantity None established

Supplier Notification Requirements (40 CFR 372.45), 313 Reportable Components

ZUS_SAR313 De minimis concentration None established

Clean Air Act Toxic ARP Section 112r:

CAA 112R None established

Clean Air Act Socmi:

HON SOC None established

Clean Air Act VOC Section 111:

CAA 111 None established

Clean Air Act Haz. Air Pollutants Section 112:

ZUS_CAAHAP None established

ZUS_CAAHRP None established

CAA AP None established

State Right-to-Know Regulations Status of Ingredients

Pennsylvania:

CAS #	COMPONENT NAME
	troclosene sodium

ZUSPA_RTK

Pennsylvania: Hazardous substance list

1989-08-11

1,3,5-TRIAZINE,2,4,6(1H,3H,5H)-TRIONE, 1,3-DICHLORO-, SODIUM SALT

New Jersey:

CAS #	COMPONENT NAME
	troclosene sodium

ZUSNJ_RTK

New Jersey Right to Know Hazardous Substance List (RTK-HSL)

2007-03-01

SODIUM DICHLOROISOCYANURATE 1,3,5-TRIAZINE-2,4,6 (1H,3H,5H)-TRIONE, 1,3-DICHLORO-, SODIUM SALT SODIUM DICHLORO-S-TRIAZINETRIONE

Special Health Hazard - Reactive - Second Degree

Massachusetts:

CAS #	COMPONENT NAME
	troclosene sodium

ZUSMA_RTK

Massachusetts Right to Know List of Chemicals and Hazard Classifications

1993-04-24

SODIUM DICHLORO-S-TRIAZINETRIONE

California Proposition 65:

CAS #	COMPONENT NAME

ZUSCA_P65

None established

WHMIS Hazard Classification:

Ingredient Disclosure List (WHMIS)

2007-08-24

Threshold limits: 0.1 Weight percent

341

Sodium bromide

Ingredient Disclosure List (WHMIS)

2007-08-24
Threshold limits: 1 Weight percent
667
Dichloroisocyanuric acid, sodium salt

16. OTHER INFORMATION

MSDS REVISION STATUS :
SECTIONS REVISED: 1
Major References : Available upon request.

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. ARCH CHEMICALS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT ARCH CHEMICALS MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT. .