BIOTROL 407

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: BIOTROL 407
Common Name: Mixture
SDS Number: 0165
Product Code: BI0034
Revision Date: 5/11/2016
Version: 2
Internal ID: 200D
Product Use: Water Treatment
Supplier Details: U.S. Water Services
12270 43rd St. NE
St. Michael, MN 55376

Contact: Non-emergency #: 866-663-7632
Email: SDS@uswaterservices.com
Web: www.uswaterservices.com

EMERGENCY RESPONSE: (ChemTel)
US & Canada: 800-255-3924
International: +01-813-248-0585

2 HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Health, Skin corrosion/irritation, 1 A
Health, Acute toxicity, 5 Inhalation
Health, Acute toxicity, 4 Dermal
Health, Acute toxicity, 4 Oral
Physical, Corrosive to Metals, 1

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:

GHS Hazard Statements:

H314 - Causes severe skin burns and eye damage
H333 - May be harmful if inhaled
H312 - Harmful in contact with skin
H302 - Harmful if swallowed
H290 - May be corrosive to metals

GHS Precautionary Statements:

P102 - Keep out of reach of children.
P281 - Use personal protective equipment as required.
P302+352 - IF ON SKIN: Wash with soap and water.
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Hazards not Otherwise Classified (HNOC) or not Covered by GHS

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas#	%	Chemical Name
1310-73-2	**1-5%**	**Sodium hydroxide**
1004542-84-0	15-25%	Sulfamic Acid, N-Bromo, Sodium Salt

4 FIRST AID MEASURES

Inhalation: Remove from contamination. If person has stopped breathing administer artificial respiration. Seek medical attention.

Skin Contact: Wash off with soap and plenty of water. Remove contaminated garments and wash or destroy. Seek medical attention if irritation develops. Consult a physician if irritation develops.

Eye Contact: Flush eyes with plenty of running water for 15 minutes. Seek medical attention.

Ingestion: If conscious, give plenty of water. If discomfort or other symptoms develop, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms & effects (acute & delayed)**:** No data available
Indication of need for immediate medical attention: None
Special treatment needs: None

5 FIRE FIGHTING MEASURES

Flash Point: None
Flash Point Method: Pensky Martens Closed cup
Burning Rate: No data available
Autoignition Temp: No data available
LEL: Not applicable
UEL: Not determined.

Extinguishing Media:

Suitable: Use extinguishing media suitable for surrounding fire.

Unsuitable: No information available

Hazardous combustion products: In the event of combustion, nitrogen, bromine, hydrobromic acid vapors or gases may be formed.

Unusual Fire or Explosion Hazards: Material is a strong oxidizer. May combine with various metals (at decomposition) to form further flammable mixtures.

Special protective equipment/precautions: Wear self-contained breathing apparatus

6 ACCIDENTAL RELEASE MEASURES

Spill/Leak procedures:

Small Spill: Wear appropriate personal protective equipment. Contain with absorbent material such as clay or inert absorbent. Shovel reclaimed liquid and absorbent into recovery or salvage drums for disposal. Follow all Federal, State and loval regulations. See Section 13 for disposal considerations.

Large Spill: Dike to prevent further movement. Recover by pumping or by using a suitable absorbent. Reclaim into recovery or salvage drums. This product can be neutralized of its halogen (active ingredient) components by sprinkiling sodium metabisulfite or sodium sulfite on the spilled material. Wash site of spillage thoroughly with water. Follow all Federal, State and local regulations. See Section 13 for disposal considerations.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120)

7 HANDLING AND STORAGE

Handling Precautions: Avoid contact with eyes, skin, or clothing. Do not taste or swallow. Do not inhale vapor or mist. Use with adequate ventilation. For industrial use only!

Storage Requirements: Keep away from children. Store in closed containers away from temperature extremes and incompatible materials.
Store in properly labeled containers in accordance with all local, state and federal guidelines.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Provide local exhaust ventilation as needed to control misting.

Personal Protective Equipment: HMIS PP, D | Face Shield and Eye Protection, Gloves, Apron

Respiratory protection: If needed use MSHA/NIOSH approved respirator for dusts and mists. Seek professional advice prior to respirator selection and use. Follow all requirements of OSHA respirator regulations (29 CFR 1910.134)
Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.
General Hygiene: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, using the toilet, or applying cosmetics.
PPE recommendation is advisory only and based on typical use conditions. An industrial hygienist or safety officer familiar with the specific situation of anticipated use must determine actual PPE required when using this product (29 CFR 1910.132)

Exposure Limits:

OSHA (TWA)/PEL: (Sodium Hypochlorite) OSHA/PEL 1.5 mg/m^3
(Sodium Hydroxide) NIOSH/REL 2 mg/m^3, OSHA/PEL TWA 2 mg/m^3

ACGIH (TWA/TLV): Not Established

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Golden		
Physical State:	Liquid	**Odor:**	No appreciable odor
Odor Threshold:	Not determined	**Solubility:**	Complete in water
Spec Grav./Density:	10.68-11.01 lb/gal	**Freezing/Melting Pt.:**	<32°F
Viscosity:	Not determined	**Flash Point:**	None
Boiling Point:	Not determined	**Vapor Density:**	Similar to water
Partition Coefficient:	Not determined	**Auto-Ignition Temp:**	Not determined
Vapor Pressure:	Similar to water	**UFL/LFL:**	Not determined
pH:	>13		
Evap. Rate:	Not determined		
Decomp Temp:	Not determined		

10 STABILITY AND REACTIVITY

Reactivity: Reactive with oxidizing agents, reducing agents, organic materials, metals, acids, adn alkalis.

Chemical Stability: Product is stable under normal storage and use conditions. Stable for up to 1 year stored under normal conditions

Conditions to Avoid: Avoid contact with strong acids and oxidizers, incompatible materials and cold temperatures

Materials to Avoid: Strong reducing agents such as sulfite and metabisulfite, strong acids and bases. Never mix this product with undiluted sodium hypochlorite bleach. The mixture will result in a violent exothermic reaction that produces a great deal of heat and nitrogen gas bubbles. perchlorates, concentrated oxygen, permanganates) which can generate heat, fire, explosions, and the release of toxic fumes.

Hazardous Decomposition: Nitrogen oxides, bromine and hydrobromic acid vapors

Hazardous Polymerization: Will not occur.

11 TOXICOLOGICAL INFORMATION

Acute Toxicity:

Oral LD_{50} (albino rats):	>5,000 mg/kg
Dermal LD_{50} (albino rats):	>2,000 mg/kg
Inhalation LC_{50} (rats):	>2.13 mg/L

Skin Corrosion/Irritation: Irritant
Serious eye damage/irritation: Acute Irritant
Respiratory or skin sensitization: No data available
Specific target organ toxicity (single exposure): No data available
Specific target organ toxicity (repeated exposure): No data available
Aspiration hazard: No data available
Carcinogenicity: No carcinogenic effects are known for the components of this product
Germ Cell Mutagenicity: No mutagenic effects are known for the components of this product
Teratogenicity: No teratogenic effects are known for the components of this product

12 ECOLOGICAL INFORMATION

Aquatic Toxicity- *Results below are based on the active product (reported as Cl2).*

Avian Exposure

Upland Game Birds:

Acute oral LD_{50}:	> 2,510 mg/kg
Subacute Dietary LC_{50}:	> 5,000 mg/kg

Aquatic Data

Cold Water Fish, acute toxicity, LC_{50}:	1.35 ppm (max- 96hr)
Warm Water Fish, acute toxicity, LC_{50}:	2.1 ppm (max-96 hr)
Invertebrate (D. magna), acute toxicity, LC_{50}	2.3 ppm (max-48 hr)

Elimination (persistency & degradability): No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
Other adverse effects: No data availableInhalation

13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

This material should be fully characterized for toxicity and possible reactivity prior to disposal (40 CFR 261). Use which results in chemical or physical change or contamination may subject it to regulation as a hazardous waste. Along with properly characterizing all waste materials, consult state and local regulations regarding the proper disposal of this material.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

14 TRANSPORT INFORMATION

UN1760, Corrosive liquids, n.o.s., 8, PGIII, (Sodium Hydroxide, Sodium Bromide)

DOT Transportation data (49 CFR 172.101)

See section 15 of SDS for information on Reportable Quantity chemicals (RQ)

15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

RQ(1000LBS), Sodium hydroxide (1310-73-2) [1-5%] CERCLA, CSWHS, MASS, OSHAWAC, PA, TSCA, TXAIR

Regulatory CODE Descriptions

RQ = Reportable Quantity
CERCLA = Superfund clean up substance
CSWHS = Clean Water Act Hazardous substances
MASS = MA Massachusetts Hazardous Substances List
OSHAWAC = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
TSCA = Toxic Substances Control Act

TXAIR = TX Air Contaminants with Health Effects Screening Level

TSCA: All components of this product are listed (or are not required to be listed) in the TSCA inventory
EPA / CERCLA / SARA TITLE III:
Toxic Chemical List (SARA 313): This product does not contain any chemicals subject to routine annual toxic chemical release reporting.
Extremely Hazardous Substance (SARA 302/304): This product does not contain any extremely hazardous substances subject to emergency planning requirements.
SARA 312: Acute
RCRA: Corrosive, D002
California Proposition 65: This product does not contain any proposition 65 chemicals.

16 OTHER INFORMATION

HMIS III: Health = 2, Fire = 0, Physical Hazard = 0
HMIS PPE: D - Face Shield and Eye Protection, Gloves, Apron

HMIS	
HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	D

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Revision Notes: Updated to GHS format

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