According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations and According to The Hazardous Products Regulation (February 11, 2015).
Revision Date: 12 /17 /2020 Date of Issue: 12 /17 /2020 Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: Biotab7

Synonyms: Chlorine Dioxide Producing Tablet

Note: This product is designed to generate a chlorine dioxide solution when the tablet is placed in a specified amount of water. The product design limits the amount of gas generated and the rate of release. Once diluted, the hazards of the solution will vary from those denoted in this document for the solid tablet only. The information within this document is only for the solid tablet and the hazardous substances encased within it under normal conditions of use and foreseeable emergencies.

1.2. Intended Use of the Product

Hospital Grade Disinfectant, Deodorant, Cleaner

1.3. Name, Address, and Telephone of the Responsible Party

Company

Advanced Biocide Technologies Inc.

523 Sawgrass Corporate Parkway

Sunrise, FL 33323

www.advancedbiocide.com

info@advancedbiocide.com

1.4. Emergency Telephone Number

Emergency Number : 1-800-535-5053

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US/CA Classification

Ox. Sol. 1	H271
Acute Tox. 4 (Oral)	H302
Acute Tox. 3 (Dermal)	H311
Acute Tox. 3 (Inhalation: dust, mist)	H331
Skin Corr. 1B	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
STOT RE 2	H373

Full text of hazard classes and H-statements: see section 16

2.2. Label Elements

GHS-US/CA Labeling

Hazard Pictograms (GHS-US/CA) :

Signal Word (GHS-US/CA) : Danger

Hazard Statements (GHS-US/CA) :
H271 - May cause fire or explosion; strong oxidizer.
H302 - Harmful if swallowed.
H311+H331 - Toxic in contact with skin or if inhaled.
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements (GHS-US/CA) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260 - Do not breathe vapors, mist, or spray.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P280 - Wear protective gloves, protective clothing, and eye protection.
P283 - Wear fire/flame resistant/retardant clothing.
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
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.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P306+P360 - IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P310 - Immediately call a POISON CENTER or doctor.
P311 - Call a POISON CENTER or doctor.
P314 - Get medical advice/attention if you feel unwell.
P321 - Specific treatment (see section 4 on this SDS).
P330 - Rinse mouth.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use appropriate media (see section 5) to extinguish.
P371+P380+P375 - In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P420 - Store away from other materials.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

Supplemental Information : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Proper grounding procedures to avoid static electricity should be followed. Prevent dust accumulation (to minimize explosion hazard). Avoid generating dust.

2.3. Other Hazards

Note: *This product, in contact with air or moisture, evolves chlorine dioxide gas. The product is designed to generate chlorine dioxide solution when tablet is placed in specified amount of water. The product design limits both the amount of gas generated and the rate of release.*

2.4. Unknown Acute Toxicity (GHS-US/CA)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	CAS #	%*
Sodium Chlorite	7758-19-2	23.77-26.23**
Sulfate Salt#1**	Proprietary**	**
Sulfate Salt#2**	Proprietary **	**
Inorganic Acid Salt Peroxide**	Proprietary **	**
Silica, amorphous	112926-00-8	0.9-1.3**

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients.

**Specific chemical identity and percentage of composition has been withheld due to confidentiality or due to batch variation. There are no additional ingredients present which, within the current knowledge of the supplier and in the concentration applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: First, take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate respiratory protective equipment, use the buddy system), then remove the exposed person to fresh air. Keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact: Immediately flush skin with plenty of water for at least 60 minutes. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor.

Eye Contact: Get immediate medical advice/attention. Rinse cautiously with water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: Harmful if swallowed. Toxic in contact with skin. Toxic if inhaled. Causes severe skin burns and eye damage. Skin sensitization. May cause damage to organs through prolonged or repeated exposure.

Inhalation: Inhalation of this material can cause serious health effects in small amounts, leading to unconsciousness and death. May be corrosive to the respiratory tract.

Skin Contact: This material is toxic in small amounts through skin contact, and can cause adverse health effects or death. This material may be absorbed through the skin and eyes. Causes severe irritation which will progress to chemical burns. May cause an allergic skin reaction.

Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Ingestion: This material is harmful orally and can cause adverse health effects or death in significant amounts. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: May cause damage to organs through prolonged or repeated exposure.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising from the Substance or Mixture

Fire Hazard: May cause fire or explosion; strong oxidizer.

Explosion Hazard: Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

Reactivity: SODIUM CHLORITE is self-reactive. The trihydrate crystals of sodium chlorite explode on percussion. Sodium chlorite reacts with acids to form spontaneously explosive chlorine dioxide gas (ClO_2). If heated above 175 °C (347 °F), the reaction yields enough heat to become self-sustaining. Ammonia with chlorites produces ammonium chlorite, which is a shock-sensitive compound. Finely divided metallic or organic substances, if mixed with chlorites, are highly flammable and may be ignited on friction. A mixture of organic matter and sodium chlorite can be extremely sensitive to heat, impact, or friction. Sodium chlorite reacts very violently with organic materials containing divalent sulfur or with free sulfur (may ignite).

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Thermal decomposition generates: Sulfur oxides. Halogenated Compounds. Chlorine gas. Corrosive vapors.

Other Information: Do not allow run-off from firefighting to enter drains or water courses. Risk of dust explosion.

Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Keep away from combustible material. Do not get in eyes, on skin, or on clothing.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. Use only non-sparking tools. As an immediate precautionary measure, isolate spill or leak area in all directions. Ventilate area.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Contact competent authorities after a spill. Do not take up in combustible material such as: saw dust or cellulosic material. Cautiously neutralize spilled solid. Use explosion proof vacuum during cleanup, with appropriate filter. Do not mix with other materials. Vacuum clean-up is preferred. If sweeping is required use a dust suppressant. Use only non-sparking tools.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: May cause or intensify fire; oxidizer. May release corrosive vapors.

Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Keep away from heat, sparks, open flames, hot surfaces, combustible materials, incompatible materials. - No smoking. Handle empty containers with care because they may still present a hazard. Do not get in eyes, on skin, or on clothing. Do not breathe dust. Use only outdoors or in a well-ventilated area.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Keep in fireproof place. Store locked up. Store in original container or corrosive resistant and/or lined container. Protect from moisture.

Incompatible Materials: Strong acids. Alkalis. Reducing agents. Combustible materials. Organic solvents. Moisture.

7.3. Specific End Use(s)

Medical Grade Disinfectant, Deodorant, Cleaner, Sanitizer; For professional use only

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

USA OSHA **USA OSHA**	OSHA PEL (TWA) (mg/m³) OSHA PEL (TWA) (ppm)	6 mg/m³ 20 mppcf (80mg/m³/%SiO_2)
USA NIOSH	NIOSH REL (TWA) (mg/m³)	6 mg/m³
USA IDLH	US IDLH (mg/m³)	3000 mg/m³

8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are

observed. Gas detectors should be used when flammable gases or vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Gas detectors should be used when toxic gases may be released. Use explosion-proof equipment.

Materials for Protective Clothing: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.

Materials for Protective Clothing: Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant clothing.

Hand Protection: Wear protective gloves.

Eye Protection: Chemical safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	:	Solid
Appearance	:	White tablet
Odor	:	Slight chlorine odor
Odor Threshold	:	Not available
pH	:	In tablet form: pH is 7-8. At 25 °C, 1% suspension in water: pH of 2.30.
Evaporation Rate	:	Not available
Melting Point	:	Not available
Freezing Point	:	Not applicable
Boiling Point	:	Not applicable
Flash Point	:	Not applicable
Auto-ignition Temperature	:	Not applicable
Decomposition Temperature	:	Not applicable
Flammability (solid, gas)	:	Not flammable
Lower Flammable Limit	:	Not applicable
Upper Flammable Limit	:	Not applicable
Vapor Pressure	:	Not applicable
Relative Vapor Density at 20°C	:	Not applicable
Relative Density	:	Not available
Specific Gravity / Density	:	2.21 g/mL (18.47 lbs./gal) @ 25°C
Specific Gravity	:	Not available
Solubility	:	Not available
Partition Coefficient: N-Octanol/Water	:	Not applicable
Viscosity	:	Not applicable

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: Sodium Chlorite is self-reactive. The trihydrate crystals of sodium chlorite explode on percussion. Sodium chlorite reacts with acids to form spontaneously explosive chlorine dioxide gas (ClO_2). If heated above 175 °C (347 °F), the reaction yields enough heat to become self-sustaining. Ammonia with chlorites produces ammonium chlorite, which is a shock-sensitive compound. Finely divided metallic or organic substances, if mixed with chlorites, are highly flammable and may be ignited on friction.

A mixture of organic matter and sodium chlorite can be extremely sensitive to heat, impact, or friction. Sodium chlorite reacts very violently with organic materials containing divalent sulfur or with free sulfur (may ignite).

10.2. Chemical Stability: May cause fire or explosion; strong oxidizer.

10.3. Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

10.4. Conditions to Avoid: Direct sunlight, extremely high or low temperatures, ignition sources, combustible materials, incompatible materials. Sparks, heat, open flame and other sources of ignition.

10.5. Incompatible Materials: Strong acids. Alkalis. Reducing agents. Combustible materials. Organic solvents. Moisture.

10.6. Hazardous Decomposition Products: None known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Oral: Harmful if swallowed.

Acute Toxicity (Dermal): Dermal: Toxic in contact with skin.

Acute Toxicity (Inhalation): Inhalation: dust, mist: Toxic if inhaled. **LD50 and LC50 Data:**

Biotab7	
ATE US/CA (oral)	582.26 mg/kg body weight
ATE US/CA (dermal)	428.80 mg/kg body weight
ATE US/CA (dust, mist)	0.92 mg/l/4h

Skin Corrosion/Irritation: Causes severe skin burns and eye damage.

pH: In tablet form: pH is 7-8. At 25 °C, 1% suspension in water: pH of 2.30.

Eye Damage/Irritation: Causes serious eye damage.

pH: In tablet form: pH is 7-8. At 25 °C, 1% suspension in water: pH of 2.30.

Respiratory or Skin Sensitization: May cause an allergic skin reaction.

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs through prolonged or repeated exposure.

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Inhalation of this material can cause serious health effects in small amounts, leading to unconsciousness and death. May be corrosive to the respiratory tract. Dust may be harmful or cause irritation.

Symptoms/Injuries After Skin Contact: This material is toxic in small amounts through skin contact, and can cause adverse health effects or death. This material may be absorbed through the skin and eyes. Causes severe irritation which will progress to chemical burns. May cause an allergic skin reaction.

Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: This material is harmful orally and can cause adverse health effects or death in significant amounts. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: May cause damage to organs through prolonged or repeated exposure.

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Sodium chlorite (7758-19-2)	
LD50 Oral Rat	165 mg/kg
LD50 Dermal Rabbit	107.2 mg/kg
LC50 Inhalation Rat	230 mg/m³ (Exposure time: 4 h)
LC50 Inhalation Rat	0.23 mg/l/4h

Inorganic Acid Salt Peroxide	
LD50 Oral Rat	1034 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg

Sulfate Salt#2	
LD50 Oral Rat	2490 mg/kg

Silica, amorphous (112926-00-8)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 2.2 mg/l (Exposure time: 1 h)
Sodium chlorite (7758-19-2)	
IARC Group	3
Silica, amorphous (112926-00-8)	
IARC Group	3

SECTION 12: ECOLOGICAL INFORMATION

Non-mandatory

SECTION 13: DISPOSAL CONSIDERATIONS

Non-mandatory

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Proper Shipping Name : OXIDIZING SOLID, N.O.S. (Sodium Chlorite)
Hazard Class : 5.1
Identification Number : UN3085
Label Codes : 5.1, 8
Packing Group : II
Marine Pollutant : Yes
ERG Number : 140

14.2. In Accordance with IMDG

Proper Shipping Name : OXIDIZING SOLID, N.O.S. (Sodium Chlorite)
Hazard Class : 5.1 (8)
Identification Number : UN3085
Label Codes : 5.1, 8
Packing Group : II
Elms-No. (Fire) : F-A
EmS-No. (Spillage) : S-Q
Marine Pollutant : Yes

14.3. In Accordance with IATA

Proper Shipping Name : OXIDIZING SOLID, N.O.S. (Sodium Chlorite)
Identification Number : 5.1 (8)
Hazard Class : UN3085
Label Codes : 5.1, 8
Packing Group : II
ERG Code (IATA) : 5C

14.4. In Accordance with TDG

Proper Shipping Name : OXIDIZING SOLID, N.O.S. (Sodium Chlorite)
Hazard Class : 5.1
Identification Number : UN3085
Label Codes : 5.1, 8
Packing Group : II
Marine Pollutant (TDG) : Yes

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SECTION 15: REGULATORY INFORMATION

Non-mandatory

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 09/09/2016

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR).