


Form #:	SDS-052
Revision Date:	01/04/2019
Revision #:	04
Supersedes Date:	11/30/2018

Section 1: Identification			
Product Name:	ZeroTolerance [®] 5.0	Product Type / Description:	Sanitizer / Disinfectant
Recommended Use:	Sanitizer / Disinfectant for commercial use	Other Means of Identification:	Peracetic Acid, Peroxyacetic Acid, PAA
Use Restrictions:	It is a violation of federal law to use this product in a manner inconsistent with its labeling.		
Manufacturer:	BioSafe Systems, LLC 22 Meadow Street East Hartford, CT 06108	EPA Registration #:	N/A
Telephone Number:	1-888-273-3088	Emergency Number: 1-800-424-9300 (CHEMTREC)	

Section 2: Hazard Identification	
GHS Classification (As Concentrate)	Hazard Statements (As Concentrate)
Oxidizing Liquid: Category 2 Organic Peroxide: Type F Corrosive to Metals: Category 1 Acute Toxicity (Oral, Dermal, and Inhalation): Category 4 Skin Corrosion: Category 1 Serious Eye Damage: Category 1 Specific Target Organ Toxicity (Single Exposure): Category 3	H242: Heating may cause fire. H272: May intensify fire; oxidizer. H290: May be corrosive to metals. H302: Harmful if swallowed. H312: Harmful in contact with skin. H314: Causes severe skin burns and eye damage. H332: Harmful if inhaled. H335: May cause respiratory irritation.
Pictograms	Signal Word
	DANGER
Precautionary Statements	
General	Response
P101: If medical advice is needed, have product container or label at hand. P102: Keep out of reach of children. P103: Read label before use.	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. P304+P340: IF INHALED: Move 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. P310: Immediately call a POISON CENTER/doctor. P321: For specific treatments see FIRST AID section on SDS or label. P370+P378: In case of fire: Use water or other suitable extinguishing media. P390: Absorb spillage to prevent material damage.
Prevention	Storage / Disposal
P210: Keep away from heat, sparks or open flames, no smoking. P220: Store away from combustible materials. P221: Take any precautions to avoid mixing with combustibles. P234: Keep only in original container. P260: Do not breathe fumes, mist or vapors. P262: Do not get in eyes, on skin or on clothing. P264: Wash thoroughly after handling. P270: Do not eat, drink, or smoke when using this product. P271: Use only outdoors or in a well-ventilated area. P280: Wear protective gloves, clothing, eye protection, face protection.	P405: Store locked up. P406: Store in corrosive resistant container, never use metal containers. P410: Protect from sunlight. P411: Store at temperatures not exceeding 55°C (131°F). P420: Store away from incompatible materials. P501: Dispose of contents/container in accordance with local/regional/national/international regulations.
Other Hazards:	Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. When heated to decomposition, emits toxic fumes. Contains an oxidizing material which may accelerate fire.

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Section 3: Composition / Information on Ingredients

Components	CAS-No	% Composition (w/w)
Hydrogen Peroxide	7722-84-1	23.0%
Peroxyacetic Acid	79-21-0	5.0%
Acetic Acid	64-19-7	10.0%

Section 4: First-Aid Measures

Eye Contact:	Hold eye(s) open and rinse cautiously with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye(s). Call a poison control center or doctor for treatment advice.
Skin Contact:	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.
Ingestion:	Call poison control center or doctor immediately for treatment advice. Rinse mouth with water. 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.
Inhalation:	Move person to fresh air. If person is not breathing, call 911. Call poison control center or doctor for treatment advice.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media:	Water spray.
Unsuitable Extinguishing Media:	Do not use a heavy water stream, use of heavy stream of water may spread fire.
Combustion Products:	Corrosive vapors, acetic acid, carbon oxides.
Unusual Fire and Explosion Hazards:	Product is not flammable but during a fire, product can decompose and generate oxygen which can initiate or promote combustion. Strong oxidizer.
Protective Equipment for Firefighters:	Do not enter fire area without proper protective equipment, including respiratory protection.

Section 6: Accidental Release Measures

Personal Precautions:	Ensure adequate ventilation. Remove all sources of ignition. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes.
Emergency Procedures:	Ensure clean-up is conducted by trained personnel. Personnel should wear protective equipment outlined in Sections 7 & 8. If facing concentrations above exposure limits personnel shall wear certified respirators.
Environmental Precautions:	Prevent entry to sewers and public waters. Avoid release to the environment.
Methods and Material for Containment and Clean-Up:	Small spills may be flushed to an approved sewer line with copious amounts of water. For larger spills, dike well ahead of spill with non-reactive material such as sand. Flush material with water and collect for disposal into plastic containers. Clean up spills immediately and dispose of waste safely. Absorb spillage to prevent material damage. Do not take up in combustible material such as a saw dust or cellulose based material. Contact competent authorities after a spill.

Section 7: Handling and Storage

Handling:	Wear protective gloves/eye protection/face protection/body, skin protection. Do not eat, drink, or smoke when using this product. Wash thoroughly after handling. Avoid breathing fumes/mist/vapors. Use only outdoors or in a well-ventilated area.
Storage:	Keep away from heat. Keep only in original container. Protect from sunlight. Store at temperatures not exceeding 55°C (131°F). Never return product back to the original container. Store in cool, ventilated area. Never use metal containers or spigots. Use vented container.
Incompatible Materials:	Store away from combustible materials. Keep concentrate away from reactive substances.

Section 8: Exposure Controls / Personal Protection

Components with Workplace Control Parameters

Component	ACGIH	NIOSH	OSHA
Acetic Acid	TWA 10 ppm STEL 15 ppm	TWA: 25 mg/m ³ - 8 hours. TWA: 10 ppm - 8 hours.	TWA: 25 mg/m ³ - 8 hours. TWA: 10 ppm - 8 hours.
Hydrogen Peroxide	TWA 1 ppm	TWA: 1.4 mg/m ³ - 8 hours. TWA: 1 ppm - 8 hours.	TWA: 1.4 mg/m ³ - 8 hours. TWA: 1 ppm - 8 hours.
Peracetic Acid	STEL 0.4 ppm		
Engineering Controls:	Ensure adequate ventilation. Emergency eye wash stations should be available in the immediate vicinity of any potential exposure.		
General Hygienic Practices:	Do not eat, drink or smoke during use.		
Personal Protective Equipment:	Protective clothing, protective goggles, gloves, face shield.		
Respiratory Protection:	Use NIOSH-approved air-purifying or supplied air respirator where airborne concentrations of vapor or mist are expected to exceed exposure limits.		

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Eye / Face Protection:	Chemical goggles or face shield.
Hands:	Chemical resistant gloves.
Skin / Body:	Wear suitable protective clothing.

Section 9: Physical and Chemical Properties

Appearance:	Clear, colorless liquid.	Odor:	Pungent, vinegar-like.	Odor Threshold:	Not available.
pH:	<1.5	Specific Gravity:	1.11 g/cm ³	Viscosity:	Not available.
Melting Point:	Not available.	Freezing Point:	-30°C (-22°F)	Boiling Point:	Not available.
Flash Point:	Not available.	Flammability:	Not available.	Flammability Limits:	Not available.
Vapor Pressure:	22 mm Hg (25°C)	Vapor Density:	Not available.	Solubility:	Complete.
Evaporation Rate:	Not available.	Auto-Ignition Temperature:	Not available.	Decomposition Temperature:	Self-accelerating decomposition temperature > 55°C
Relative Density:	Not available.	Partition Coefficient n-octanol / water:	Not available.		

Section 10: Stability and Reactivity

Stability:	Store below 86°F and not in direct sunlight. Oxidizer – may intensify fire.
Conditions to Avoid:	Open flames, elevated temperatures, heat sources, direct sunlight. Combustible materials.
Incompatible Materials:	Acids / Bases / Reducing Agents / Organic Materials / Metals / Salts of Metals.
Hazardous Decomposition Products:	Thermal decomposition generates corrosive vapors, acetic acid and oxygen which supports combustion.

Section 11: Toxicological Information

Acute Toxicological Data					
Oral LD50:	330 mg/kg (rat) at 7% solution	Dermal LD50:	1410 mg/kg (rabbit) at 10% solution	Inhalation LC50:	4 hours – 4080 mg/kg (rat) at 5% solution
Likely Routes of Exposure:		Inhalation, eye contact, skin contact.			
Symptoms and Effects					
Condition	Acute Effects			Chronic (Delayed) Effects	
Eye Contact:	Causes serious eye damage.			None.	
Skin Contact:	Causes severe skin burns.			None.	
Inhalation:	May cause respiratory tract irritation.			None.	
Ingestion:	Harmful if swallowed.			None.	

Section 12: Ecological Information

Ecotoxicity:	Toxic to simple celled aquatic organisms.
Persistence and Degradability:	Weak persistence of degradation products.
Bioaccumulation Potential:	Not available.
Mobility in Soil:	Non-significant adsorption soil degradation = 99% in 20 minutes.
Other Adverse Effects:	Avoid release of concentrated material to the environment.

Section 13: Disposal Considerations

Waste from Residues and Unused Product:	Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.
Contaminated Container Disposal:	Do not reuse or refill this container. Triple rinse empty containers with clean water. Clean and empty containers are to be recycled or placed in the trash.

Section 14: Transport Information

	UN Number	UN Proper Shipping Name	Hazard Class (Subsidiary)	Label (Subsidiary)	Packing Group	Marine Pollutant
US DOT	3109	Organic peroxide type F, liquid (Peroxyacetic Acid <43%)	5.2 (8)	Organic Peroxide (Corrosive)	N/A	NO
TDG	3109	Organic peroxide type F, liquid (Peroxyacetic Acid <43%)	5.2 (8)	Organic Peroxide (Corrosive)	N/A	NO
Special Precautions:	Shipping Container: UN Certified vented polyethylene					

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Section 15: Regulatory Information									
TSCA Inventory List:	Yes	US EPA CERCLA Hazardous Substances:				Acetic Acid 5000 lbs.			
SARA Title III Sec. 302/303	Peracetic Acid; Hydrogen Peroxide					Sec. 302 TPQ:	Peracetic Acid 500 lbs. Hydrogen Peroxide 1000 lbs.		
SARA Title III Sec. 311/312	Peracetic Acid; Hydrogen Peroxide	Hazard Category:		Acute Health, Reactivity, Fire		Sec. 304 EHS RQ:	Peracetic Acid 500 lbs. Hydrogen Peroxide 1000 lbs.		
US EPA EPCRA Sec. 313	Peracetic Acid			CAA Threshold Qty:		10,000 lbs.			
NFPA Rating	Health:	3	Flammability:	1	Reactivity:	1	Special:	OX (Oxidizer)	
HMIS Rating	Health:	3	Flammability:	1	Physical:	1	PPE:	Recommended.	
CAN WHMIS Classification	C – Oxidizing; E – Corrosive; F – Dangerously Reactive								
California Prop 65	This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm.								

Section 16: Other Information	
<p>According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations</p> <p>To the extent of our knowledge, the information herein is accurate as of the date of this document. However, neither BioSafe Systems nor any of its affiliates make any warranty, expressed or implied, or accept any liability relating to the information or its use. The information is for use by technically skilled persons at their own discretion and risk. This is not a license or a patent. The user alone must finally determine suitability of any information or material for any contemplated use, the manner or use and whether any patents are infringed. Always read and follow label directions.</p> <p style="text-align: center;">BioSafe Systems</p> <p>For additional information, call us toll-free at 1.888.273.3088 or visit www.biosafesystems.com</p> <p>© 2018 BioSafe Systems, LLC. Revision Date: 01/04/2019 Current Revision Number: 04</p>	

Key to Abbreviations

ACGIH - American Conference of Governmental Industrial Hygiene	TWA - Time-Weighted Averages are based on 8h/day, 40h/week exposures
NIOSH - National Institute of Occupational Safety and Health	STEL - Short Term Exposure Limits are based on 15-minute exposures
OSHA - Occupational Safety and Health Administration	STEV - Short Term Exposure Value
EHS - Environmental Health and Safety	PEL - Permissible Exposure Limit
DOT - Department of Transportation	CAN TDG - Canadian Transportation of Dangerous Goods
EPA - Environmental Protection Agency	TSCA - Toxic Substances Control Act
TPQ - Threshold Planning Quantity	RQ - Reportable Quantity
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act	SARA - Superfund Amendments and Reauthorization Act
NFPA - National Fire Protection Association	HMIS - Hazardous Materials Identification System
WHMIS - Workplace Hazardous Materials Information System (Canada)	EPCRA - Emergency Planning and Community Right-to-Know Act