

Form #:	SDS-070
Revision Date:	01/16/2019
Revision #:	02
Supersedes Date:	5/1/2015

Section 1: Identification			
Product Name:	OxiPhos <sup>®</sup>	Product Type / Description:	Bactericide / Fungicide
Recommended Use:	Pesticide for commercial use.	Other Means of Identification:	Neutralized Phosphorous Acid / Hydrogen Peroxide Solution
Use Restrictions:	It is a violation of federal law to use this product in a manner inconsistent with its labeling.		
Manufacturer:	<b>BioSafe Systems, LLC</b> 22 Meadow Street   East Hartford, CT 06108	EPA Registration #:	70299-22
Telephone Number:	1-888-273-3088	<b>Emergency Number: 1-800-424-9300 (CHEMTREC)</b>	

Section 2: Hazard Identification	
GHS Classification	Hazard Statements
Oxidizing Liquid: Category 3 Acute Toxicity (Inhalation): Category 4 Skin Corrosion: Category 2 Serious Eye Damage: Category 1	H272: May intensify fire; oxidizer. H302: Harmful if swallowed. H315: Causes skin irritation. H318: Causes serious eye damage. H332: Harmful if inhaled.
Pictograms	Signal Word
	<b>DANGER</b>
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. P280: Wear protective gloves, clothing, eye protection, face protection.	P405: Store locked up. 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:	N/A

Section 3: Composition / Information on Ingredients		
Components	CAS-No	% Composition (w/w)
Mono and Di Potassium Salts of Phosphorus Acid* <i>*Contains 17.7% phosphorus acid by weight</i>	-	27.1%
Hydrogen Peroxide	7722-84-1	14.0%
Inert Ingredients	-	58.9%

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### Section 4: First-Aid Measures

<b>Eye Contact:</b>	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.
<b>Skin Contact:</b>	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.
<b>Ingestion:</b>	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.
<b>Inhalation:</b>	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

<b>Suitable Extinguishing Media:</b>	Use media appropriate for surrounding conditions. Water, foam, dry powder or carbon dioxide.
<b>Unsuitable Extinguishing Media:</b>	None known.
<b>Combustion Products:</b>	May produce oxides of phosphorous or phosphines.
<b>Unusual Fire and Explosion Hazards:</b>	Product (concentrate) can decompose and will release oxygen thereby adding to the fire hazard.
<b>Protective Equipment for Firefighters:</b>	Do not enter fire area without proper protective equipment, including respiratory protection.

### Section 6: Accidental Release Measures

<b>Personal Precautions:</b>	Wear appropriate protective clothing, gloves and eye protection. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
<b>Emergency Procedures:</b>	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.
<b>Environmental Precautions:</b>	Prevent entry to sewers and public waters. Avoid release to the environment.
<b>Methods and Material for Containment and Clean-Up:</b>	Rinse small amounts to drain when possible. Dike or dam large spills, pump to containers or soak in inert absorbent. Flush residue to sanitary sewer, rinse area thoroughly with clean water. Avoid materials that are incompatible with concentrate. Waste Disposal: Consult state and local authorities for restrictions on disposal of chemical wastes.

### Section 7: Handling and Storage

<b>Handling:</b>	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.
<b>Storage:</b>	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.
<b>Incompatible Materials:</b>	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
Mono and Di Potassium Salts of Phosphorus Acid	NA	NA	NA
Hydrogen Peroxide	TWA 1 ppm	TWA: 1.4 mg/m <sup>3</sup> - 8 hours. TWA: 1 ppm - 8 hours.	TWA: 1.4 mg/m <sup>3</sup> - 8 hours. TWA: 1 ppm - 8 hours.
<b>Engineering Controls:</b>	Ensure adequate ventilation. Emergency eye wash stations should be available in the immediate vicinity of any potential exposure.		
<b>General Hygienic Practices:</b>	Do not eat, drink or smoke during use.		
<b>Personal Protective Equipment:</b>	Protective clothing, protective goggles, gloves, face shield.		
<b>Respiratory Protection:</b>	Use NIOSH-approved air-purifying or supplied air respirator where airborne concentrations of vapor or mist are expected to exceed exposure limits.		
<b>Eye / Face Protection:</b>	Chemical goggles or face shield.		
<b>Hands:</b>	Chemical resistant gloves.		
<b>Skin / Body:</b>	Wear suitable protective clothing.		

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### Section 9: Physical and Chemical Properties

<b>Appearance:</b>	Clear, colorless liquid.	<b>Odor:</b>	None.	<b>Odor Threshold:</b>	Not available.
<b>pH:</b>	4.85	<b>Specific Gravity:</b>	1.35 g/cm <sup>3</sup>	<b>Viscosity:</b>	Not available.
<b>Melting Point:</b>	Not available.	<b>Freezing Point:</b>	Not available.	<b>Boiling Point:</b>	Not available.
<b>Flash Point:</b>	Not available.	<b>Flammability:</b>	Not available.	<b>Flammability Limits:</b>	Not available.
<b>Vapor Pressure:</b>	Not available.	<b>Vapor Density:</b>	Not available.	<b>Solubility:</b>	Complete.
<b>Evaporation Rate:</b>	Not available.	<b>Auto-Ignition Temperature:</b>	Not available.	<b>Decomposition Temperature:</b>	Self-accelerating decomposition temperature > 55°C
<b>Relative Density:</b>	Not available.	<b>Partition Coefficient n-octanol / water:</b>	Not available.		

### Section 10: Stability and Reactivity

<b>Stability:</b>	Stable under normal conditions, with slow oxygen release.
<b>Conditions to Avoid:</b>	Heat sources, direct sunlight.
<b>Incompatible Materials:</b>	Acids / Bases / Reducing Agents / Organic Materials / Metals / Salts of Metals.
<b>Hazardous Decomposition Products:</b>	NA

### Section 11: Toxicological Information

#### Acute Toxicological Data

<b>Oral LD50:</b>	Hydrogen Peroxide: 1193 mg/kg (rat) Mono and Di Potassium Salts of Phosphorus Acid: >5000 mg/kg (rat)	<b>Dermal LD50:</b>	Hydrogen Peroxide: >2,000 mg/kg (rabbit) Mono and Di Potassium Salts of Phosphorus Acid: > 5,000 mg/kg (rabbit)	<b>Inhalation LC50:</b>	Hydrogen peroxide: 4 hr > 0.17 mg/L (rat) Mono and Di Potassium Salts of Phosphorus Acid: 4hr >2.06 mg/L (rat)
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**Likely Routes of Exposure:** Inhalation, eye contact, skin contact.

#### Symptoms and Effects

Condition	Acute Effects	Chronic (Delayed) Effects
<b>Eye Contact:</b>	Causes serious eye damage.	None.
<b>Skin Contact:</b>	Causes skin irritation.	None.
<b>Inhalation:</b>	May cause respiratory tract irritation.	None.
<b>Ingestion:</b>	Harmful if swallowed.	None.

### Section 12: Ecological Information

<b>Ecotoxicity:</b>	Studies show that phosphorus acid is not harmful to most target organisms, but has some toxicity to fish and aquatic invertebrates. Rainbow Trout: 96 hr. LC50 >118 mg/L; Daphnia magna: 48 hr. EC50 > 118 mg/L
<b>Persistence and Degradability:</b>	Weak persistence of degradation products.
<b>Bioaccumulation Potential:</b>	NA
<b>Mobility in Soil:</b>	Non-significant adsorption soil degradation = 99% in 20 minutes.
<b>Other Adverse Effects:</b>	NA

### Section 13: Disposal Considerations

<b>Waste from Residues and Unused Product:</b>	Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.
<b>Contaminated Container Disposal:</b>	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
<b>US DOT</b>	2984	Hydrogen, peroxide, aqueous solutions with not less than 8 percent but less than 20 percent hydrogen peroxide (stabilized as necessary)	5.1	Oxidizer	III	NO
<b>CAN TDG</b>	2984	Hydrogen, peroxide, aqueous solutions with not less than 8 percent but less than 20 percent hydrogen peroxide (stabilized as necessary)	5.1	Oxidizer	III	NO
<b>Special Precautions:</b>		NA				

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Section 15: Regulatory Information							
<b>TSCA Inventory List:</b>	Yes	<b>US EPA CERCLA Hazardous Substances:</b>			NA		
<b>SARA Title III Sec. 302/303</b>	Hydrogen Peroxide			<b>Sec. 302 TPQ:</b>	Hydrogen Peroxide 1000 lbs.		
<b>SARA Title III Sec. 311/312</b>	Hydrogen Peroxide	<b>Hazard Category:</b>	Acute Health, Fire		<b>Sec. 304 EHS RQ:</b>	Hydrogen Peroxide 1000 lbs.	
<b>US EPA EPCRA Sec. 313</b>	NA			<b>CAA Threshold Qty:</b>		NA	
<b>NFPA Rating</b>	<b>Health:</b> 2	<b>Flammability:</b> 0	<b>Reactivity:</b> 1	<b>Special:</b>	OX (Oxidizer)		
<b>HMIS Rating</b>	<b>Health:</b> 2	<b>Flammability:</b> 0	<b>Physical:</b> 1	<b>PPE:</b>	Recommended.		
<b>CAN WHMIS Classification</b>	C – Oxidizing; E – Corrosive						
<b>California Prop 65</b>	This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm.						
<b>EPA</b>	This product is a registered pesticide with the United States Environmental Protection Agency and is subject to EPA labeling requirements under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). These requirements may differ from the classification criteria and hazard information required for a safety data sheet under the Global Harmonized Systems (GHS), and for workplace labels of non-pesticide chemicals. It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Always refer to product label for further precautionary information and use directions.						

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>For additional information, call us toll-free at 1.888.273.3088 or visit <a href="http://www.biosafesystems.com">www.biosafesystems.com</a></p> <p>© 2018 BioSafe Systems, LLC. Revision Date: 01/16/2019 Current Revision Number: 03</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