# SAFETY DATA SHEET (SDS)

OxiDate® 2.0

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| **Form #:** | SDS-033 |
| **Revision Date:** | 08/22/2018 |
| **Revision #:** | 03 |
| **Supersedes Date:** | 03/01/2016 |

## Section 1: Identification

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|---|---|---|---|---|---|
| **Product Name:** | OxiDate® 2.0 | **Product Type / Description:** | Bactericide / Fungicide | | |
| **Recommended Use:** | Pesticide 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**<br>**22 Meadow Street \| East Hartford, CT 06108** | **EPA Registration #:** | 70299-12 | **Canada PMRA Registration #:** | 32907 |
| **Telephone Number:** | **1-888-273-3088** | **Emergency Number: 1-800-424-9300 (CHEMTREC)** | | | |

## Section 2: Hazard Identification

| GHS Classification | Hazard Statements |
|---|---|
| Oxidizing Liquid: Category 2<br>Organic Peroxide: Type F<br>Corrosive to Metals: Category 1<br>Acute Toxicity (Oral, Dermal, and Inhalation): Category 4<br>Skin Corrosion: Category 1<br>Serious Eye Damage: Category 1 | H242: Heating may cause fire.<br>H272: May intensify fire; oxidizer.<br>H290: May be corrosive to metals.<br>H302: Harmful if swallowed.<br>H312: Harmful in contact with skin.<br>H314: Causes severe skin burns and eye damage.<br>H332: Harmful if inhaled.<br>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.<br>P102: Keep out of reach of children.<br>P103: Read label before use. | P301+P330+P331: IF SWALLOWED: Rinse mouth. Do not induce vomiting.<br>P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.<br>P304+P340: IF INHALED: Move person to fresh air and keep comfortable for breathing.<br>P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P310: Immediately call a POISON CENTER/doctor.<br>P321: For specific treatments see FIRST AID section on SDS or label.<br>P370+P378: In case of fire: Use water or other suitable extinguishing media.<br>P390: Absorb spillage to prevent material damage. |
| **Prevention** | **Storage / Disposal** |
| P210: Keep away from heat, sparks or open flames, no smoking.<br>P220: Store away from combustible materials.<br>P221: Take any precautions to avoid mixing with combustibles.<br>P234: Keep only in original container.<br>P260: Do not breathe fumes, mist or vapors.<br>P262: Do not get in eyes, on skin or on clothing.<br>P264: Wash thoroughly after handling.<br>P270: Do not eat, drink, or smoke when using this product.<br>P271: Use only outdoors or in a well-ventilated area.<br>P280: Wear protective gloves, clothing, eye protection, face protection. | P405: Store locked up.<br>P406: Store in corrosive resistant container, never use metal containers.<br>P410: Protect from sunlight.<br>P411: Store at temperatures not exceeding 55°C (131°F).<br>P420: Store away from incompatible materials.<br><br>P501: Dispose of contents/container in accordance with local/regional/national/international regulations. |

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| **Other Hazards:** | N/A |

## Section 3: Composition / Information on Ingredients

| Components | CAS-No | % Composition (w/w) |
|---|---|---|
| Hydrogen Peroxide | 7722-84-1 | 27.0% |
| Peroxyacetic Acid | 79-21-0 | 2.5% |
| Acetic Acid | 64-19-7 | 5.0% |

## Section 4: First-Aid Measures

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| **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

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| **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

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| **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. Neutralize spilled liquid with soda ash (sodium carbonate) spread over the surface at a rate of 0.7-1.0 pounds per gallon of spilled material. The resultant neutralized product will become carbon dioxide and water. Flush material with water and collect for disposal into plastic containers.<br><br>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

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| **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<br>STEL 15 ppm | TWA: 25 mg/m³ - 8 hours.<br>TWA: 10 ppm - 8 hours. | TWA: 25 mg/m³ - 8 hours.<br>TWA: 10 ppm - 8 hours. |
| Hydrogen Peroxide | TWA 1 ppm | TWA: 1.4 mg/m³ - 8 hours.<br>TWA: 1 ppm - 8 hours. | TWA: 1.4 mg/m³ - 8 hours.<br>TWA: 1 ppm - 8 hours. |
| Peracetic Acid | STEL 0.4 ppm | | |

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| **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. |

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

## Section 9: Physical and Chemical Properties

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| **Appearance:** | Clear, colorless liquid. | **Odor:** | Pungent, vinegar-like. | **Odor Threshold:** | Not available. |
| **pH:** | <1.5 | **Specific Gravity:** | 1.10 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

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| **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

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| **Oral LD50:** | Rat 3622 mg/kg | **Dermal LD50:** | Rabbit, 1040 mg/kg | **Inhalation LC50:** | 4 hours – Rat 5350 mg/kg |

**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

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| **Ecotoxicity:** | Toxic to single cell and aquatic organisms<br>Fish, Rainbow trout LC50, 48 hours > 40 mg/L; Crustaceans, EC 50, 48 hours 126.8 mg/L |
| **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 to the environment. |

## Section 13: Disposal Considerations

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| **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** | 3149 | Hydrogen peroxide and peroxyacetic acid mixtures, stabilized with acids, water, and not more than 5 percent peroxyacetic acid | 5.1 (8) | Oxidizer (Corrosive) | II | NO |
| **CAN TDG** | 3149 | Hydrogen peroxide and peroxyacetic acid mixtures, stabilized with acids, water, and not more than 5 percent peroxyacetic acid | 5.1 (8) | Oxidizer (Corrosive) | II | NO |

**Special Precautions:** Shipping Container: UN Certified vented polyethylene

## Section 15: Regulatory Information

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| **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. | | |
| **SARA Title III Sec. 311/312** | Peracetic Acid | **Hazard Category:** | Acute Health, Reactivity, Fire | | | **Sec. 304 EHS RQ:** | Peracetic Acid 500 lbs. | | |
| **US EPA EPCRA Sec. 313** | Peracetic Acid | | | **CAA Threshold Qty:** | 10,000 lbs. | | | | |
| **NFPA Rating** | **Health:** | **2** | **Flammability:** | **0** | **Reactivity:** | **3** | **Special:** | OX (Oxidizer) | |
| **HMIS Rating** | **Health:** | **2** | **Flammability:** | **0** | **Physical:** | **2** | **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. | | | | | | | | |

**EPA** 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

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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BioSafe Systems

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For additional information, call us toll-free at 1.888.273.3088 or visit www.biosafesystems.com



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Current Revision Number: 03

### 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 |