


| Section 1: Identification | |
|--|--|
| Product Name: StorOx 2.0 [®] | Product Type/Description: Bactericide / Fungicide |
| Recommended Use/ Use Restrictions: Pesticide; It is a violation of federal law to use this product in a manner inconsistent with its labeling | Other Means of Identification: Peracetic Acid, Peroxyacetic Acid, PAA |
| Product's Highest Labeled End Use Dilution Information: 2% | EPA Registration Number: 70299-7 |
| Manufacturer: BioSafe Systems LLC 22 Meadow Street, East Hartford, CT 06108 Telephone Number: (888-273-3088) | Emergency Number: 800-424-9300 (CHEMTREC) |

| Section 2: Hazard Identification | | |
|--|--|---|
| <u>GHS Classification (As Concentrate)</u> 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 | <u>Hazard Statements: (As Concentrate)</u> H272: May intensify fire; oxidizer H242: Heating may cause fire H290: May be corrosive to metals H312: Harmful in contact with skin H302: Harmful if swallowed H332: Harmful if inhaled H314: Causes severe skin burns and eye damage H335: May cause respiratory irritation | <u>Pictograms:</u> <div style="text-align: center;">  </div> <p style="text-align: center;">Signal Word: DANGER</p> |
| <u>GHS Classification (At Highest End Use Dilution)</u> Components of the end use mixture fall below minimum concentration thresholds and are not classified as hazardous by GHS/OSHA guidelines. | <u>Hazard Statements: (At Highest End Use Dilution)</u> None | <u>Pictograms:</u> None |

| Precautionary Statements (As Concentrate): | |
|--|---|
| <u>General:</u> 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. <u>Prevention:</u> 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 P271: Use only outdoors or in a well-ventilated area | <u>Response:</u> 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: 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. 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 <u>Storage:</u> P405: Store locked up P410: Protect from sunlight P411: Store at temperatures not exceeding 55°C (131°F) P406: Store in corrosive resistant container, never use metal containers P420: Store away from Incompatible materials <u>Disposal</u> P501: Dispose of contents/container in accordance with local/regional/national/international regulations |

| |
|---|
| Other Information: NFPA Rating: Health – 3; Flammability – 1; Reactivity – 1; Special – OXY HMIS Rating: Health – 3; Flammability – 1; Reactivity – 1; PPE: Required |
|---|

Section 3: Composition/Information on Ingredients

| Components: | CAS-No: | % Concentration by Weight (as Concentrate): | % Concentration by Weight of Highest End Use Dilution |
|-------------------|-----------|---|---|
| Hydrogen Peroxide | 7722-84-1 | 27.1% | 0.55% |
| Peroxyacetic Acid | 79-21-0 | 2% | 0.04% |
| Acetic Acid | 64-19-7 | <5% | 0.1% |

Section 4: First-aid Measures

| As Concentrate | | At highest End Use Dilution |
|---------------------------|---|---|
| Eye Contact: | Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. | Hold eye open and rinse slowly, and gently with water. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice if symptoms persist |
| 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. | Rinse with water - no specific first aid measures are required |
| Ingestion | Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. | Rinse mouth with water - no specific first aid measures are required |
| Inhalation: | Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1.800.222.1222 for emergency treatment information. | No specific first aid measures are required |
| Note to Physician: | Probable mucosal damage may contraindicate the use of gastric lavage. | N/A |

Section 5: Fire-fighting Measures

| | |
|---|--|
| Suitable Extinguishing Media: | Product is not flammable and can be quickly diluted with clean water. Oxidizing Agent may cause spontaneous ignition with oxidizing agents |
| Unsuitable Extinguishing Media: | None Known |
| Combustion Products: | Carbon Oxides |
| Unusual Fire and Explosion Hazards: | Product (concentrate) can decompose and will release oxygen thereby adding to the fire hazard. |
| Protective Equipment for Firefighters: | Use PPE equipment |

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 spill from entering waterways |
| Methods and Material for Containment and Cleaning up | Cleanup: 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. Unused product (concentrate) is classified as a (D002) by RCRA criteria. |

Section 7: Handling and Storage

| | |
|--------------------------------|---|
| Handling: | Wear protective gloves/eye protection/face 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

| Section 8: Exposure Controls/Personal Protection | | | |
|--|--------------------------------------|---|--|
| Components with workplace control parameters | | | |
| Component | ACGIH | NIOSH | OSHA |
| Acetic Acid | TWA 10 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. |
| Engineering Controls | Effective exhaust ventilation system | | |
| | At Concentrate | At Highest End Use Dilution | |
| Personal Protection Equipment | Respiratory | NIOSH approved full-face respirator for excessive conditions | None Required |
| | Eye/Face Protection | - chemical proof goggles/face shield for splash risk | Avoid Direct Eye Contact / Wear goggles as a precaution if possibility of direct eye contact exist |
| | Hands | Hand gloves for handling concentrate = butyl rubber | None Required |
| | Skin/Body | coveralls when handling concentrate | None Required |
| | General Hygienic Practices | Do not eat, drink, or smoke when using this product. Wash thoroughly after handling Avoid breathing fumes/mist/vapors. Remove and wash contaminated clothing before reuse | Handle in accordance with good industrial hygiene and safety practice. Wash hands after use |

Section 9: Physical and Chemical Properties

| As Concentrate | | |
|---|--|---|
| Appearance: Clear, colorless liquid | Odor: Pungent | pH: 0.96 – 1.1 |
| Melting Point: No data available | Freezing Point: -30°C (-22°F) | Boiling Point: Not applicable, product decomposes |
| Flash Point: No data available | Flammability: No data available | Flammable Limits: No data available |
| Vapor Pressure: No data available | Specific Gravity: 1.10 | Solubility(ies): soluble |
| Partition Coefficient n- octanol/water: No data available | Auto-ignition Temperature: No data available | Decomposition Temperature: self-accelerating decomposition temperature > 55°C |

| At End Use Dilutions | | |
|---|--|---|
| Appearance: Clear, colorless liquid | Odor: vinegar like | pH: 3.3 – 5.0 |
| Melting Point: No data available | Freezing Point: no data available | Boiling Point: Not applicable, product decomposes |
| Flash Point: No data available | Flammability: No data available | Flammable Limits: No data available |
| Vapor Pressure: No data available | Specific Gravity: 1.0 – 1.02 | Solubility(ies): soluble |
| Partition Coefficient n- octanol/water: No data available | Auto-ignition Temperature: No data available | Decomposition Temperature: self-accelerating decomposition temperature > 55°C |

Section 10: Stability and Reactivity

| | |
|---|--|
| Stability: | Stable under normal conditions, with slow oxygen release |
| Conditions to Avoid | Heat / Direct Sunlight |
| Incompatible materials | Acids / Bases / Reducing Agents Organic Materials / Metals / Salts of Metals |
| Hazardous Decomposition Products | N/A |

Section 11: Toxicological Information

| | | |
|---|---|--|
| Acute Toxicological Data: | Oral: LD50 rat 3,622 mg/kg. Test substance: 5.6% PAA, 26.9% H2O2, 7.6% HOAc solution | Dermal: LD50 rabbit, 1040 mg/kg. Test substance: 4.89% PAA, 19.72% H2O2, 10% HOAc solution |
| Inhalation: LD50 rat > 5.35 mg/L for four hour exposure. Test substance: 4.5% PAA, 27% H2O2, 16.7% HOAc solution | Primary Skin irritation: rabbit, severe irritant. Test substance: 2% PAA solution | Primary Eye irritation: rabbit, severely irritating or corrosive. Test substance: 2% PAA solution |
| Likely Routes of Exposure: Inhalation, eye contact, skin contact | | |
| Symptoms and effects: | Acute Effects of Concentrate | Acute Effects at Highest End Use Dilution |
| Eye Contact | Causes serious eye damage | May cause eye irritation |
| Skin Contact | Causes severe skin burns | None known or expected under normal use |
| Inhalation | May cause respiratory track irritation | None known or expected under normal use |
| Ingestion | Harmful if swallowed | None known or expected under normal use |
| Chronic exposure: | Dermal and inhalation – irritating effects | None known or expected under normal use |

| Section 12: Ecological Information | |
|--------------------------------------|--|
| Ecotoxicity | Toxic to simple cell and aquatic organisms; Fish, Rainbow trout LC50, 48 hours > 40 mg/L Crustaceans, EC 50,48 hours 126.8 mg/l 1 mg/ L Bacteria, Pseudomonas aeruginosa, EC 100, 5 minutes, 5mg/L |
| Persistence and degradability | Weak persistence of degradation products |
| Bioaccumulation potential | No bioaccumulation |
| Mobility is Soil | Non-significant adsorption Soil degradation = 99% in 20 minutes |
| Other adverse effects | N/A |

| Section 13: Disposal Considerations | |
|---|---|
| Waste From Residues and Unused Product | Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Open dumping is prohibited. If wastes cannot be disposed of according to label directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance. |
| Contaminated Container Disposal | Triple rinse (or equivalent). Then offer for recycling or dispose in a sanitary landfill, or incineration, if allowed by state and local authorities by burning. Stay out of smoke. |

| 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 mixture, stabilized with acids and water and not more than 5% peroxyacetic acid. | 5.1(8) | Oxidizer (Corrosive) | II | No |
| Canada (TDG) | 3149 | Hydrogen peroxide and peroxyacetic acid mixture, stabilized with acids and water and not more than 5% peroxyacetic acid. | 5.1(8) | Oxidizer (Corrosive) | II | NO |

Special Precautions: Shipping Container: UN Certified vented polyethylene

| Section 15: Regulatory Information | | | |
|--|--|--|--|
| TSCA Inventory List: Yes | US EPA CERCLA RQ: Acetic Acid 5000 lbs | | |
| SARA Title III Section Extremely Hazardous Substance: Peroxyacetic acid | Section 304 EHS RQ: Peroxyacetic Acid 500 lbs | Section 302 TPQ: Peroxyacetic Acid 500 lbs | |
| SARA Title III Sec. 311/312: peroxyacetic acid | Hazard category: Acute Health Hazard Reactivity Hazard, Fire Hazard | | |
| US. EPA EPCRA Section 313 listed: Peroxyetic acid | Threshold quantity (processed or manufactured): 10,000 lbs | Threshold quantity (otherwise used): 25,000 lbs | |
| Canadian WHIMIS Classification | C – Oxidizing E – Corrosive F – Dangerously Reactive | | |
| California Prop 65 | This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects. | | |
| 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 |
|--|
| <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 in connection with the information or its use. The information is for use by technically skilled persons at their own discretions 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.</p> <p style="text-align: center;">BioSafe Systems</p> <p>For additional information on StorOx 2.0, call us toll-free at 1.888.273.3088 or visit www.biosafesystems.com. ©2014 Copyright BioSafe Systems, LLC. ®StorOx 2.0 is a registered trademark of BioSafe Systems, LLC. Always read and follow label directions. Issuing Date: 4/2017 Revision Number: r4</p> |