

SAFETY DATA SHEET (SDS)

GreenClean® PRO

Form #:	SDS-032
Revision Date:	08/30/2019
Revision #:	06
Supersedes Date:	04/16/2019

Section 1: Identification			
Product Name:	GreenClean® PRO	Product Type / Description:	Algaecide / Fungicide
Recommended Use:	Pesticide / Water Treatment	Other Means of Identification:	Sodium Carbonate Peroxyhydrate, Sodium Percarbonate
Use Restrictions:	It is a violation of federal law to use this product in a manner inconsistent with its labeling.	Chemical Formula:	2Na ₂ CO ₃ + 3H ₂ O
Manufacturer:	BioSafe Systems, LLC 22 Meadow Street East Hartford, CT 06108	EPA Registration #:	70299-15
Telephone Number:	1-888-273-3088	Emergency Number: 1-800-424-9300 (CHEMTREC)	

Section 2: Hazard Identification	
GHS Classification	Hazard Statements
Oxidizing Solid: Category 2 Acute Toxicity Oral: Category 4 Serious Eye Damage/Eye Irritation: Category 1A	H272: May intensify fire; oxidizer. H302: Harmful if swallowed. H318: Causes serious eye damage.
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+P312+P330: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. P303+P352: IF ON SKIN: Wash with plenty of water. 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. P370+P378: In case of fire: Use water to extinguish.
Prevention	Storage / Disposal
P221: Take any precautions to avoid mixing with combustibles. P264: Wash skin thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P280: Wear protective gloves, clothing, eye protection, face protection.	P420: Store away from incompatible materials. P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3: Composition / Information on Ingredients		
Components	CAS-No	% Composition (w/w)
Sodium Carbonate Peroxyhydrate	15630-89-4	85.0%

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 if irritation persists.
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.
Notes to Physician:	Material is corrosive and probable mucosal damage may contraindicate the use of gastric lavage.

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Section 5: Fire-Fighting Measures

Suitable Extinguishing Media:	Water or water spray.
Unsuitable Extinguishing Media:	None.
Combustion Products:	Carbon monoxide, carbon dioxide, oxygen.
Unusual Fire and Explosion Hazards:	Oxidizing substance, exothermic decomposition releases oxygen, may support combustion.
Protective Equipment for Firefighters:	Full chemical protection suits and boots (rubber or PVC) and self-contained breathing apparatus. Cordon the area to keep out all unnecessary personnel. Keep upwind. Use large quantities of water spray to fight fire. Cool containers / tanks with water spray. If safe to do, move product away from fire to secure area. Eliminate all possible sources of ignition and remove flammable material.

Section 6: Accidental Release Measures

Personal Precautions:	Work to prevent dust cloud formation. No open flames in area. Wear protective clothing and glasses.
Emergency Procedures:	Ensure clean-up is conducted by trained personnel. Personnel should wear appropriate protective equipment. Remove all sources of ignition. If facing concentrations above exposure limits personnel shall wear certified respirators.
Environmental Precautions:	Prevent undiluted spillage from entering sewers, basements or watercourses.
Methods and Material for Containment and Clean-Up:	Sweep up to prevent slipping hazards. Place spilled material into a suitable container using protective clothing, avoid dust cloud formation. After removing material, clean affected area/surfaces with an excess of water.

Section 7: Handling and Storage

Handling:	Avoid creating dust. Keep away from open flames/heat. Keep container closed tightly when not in use. Wear safe clothing and eye protection. Never return unused product to original storage container.
Storage:	Keep container closed tightly in storage. Store in a dry location and out of direct sunlight. Store separately from incompatible materials. Store at temperatures less than 40°C (104°F).
Incompatible Materials:	Oxidizing agents (strong acids/bases), metals, organic materials, water/moisture.
Compatible Materials:	Stainless Steel, Polyethylene, Paper with PE coating

Section 8: Exposure Controls / Personal Protection

Components with Workplace Control Parameters

Component	ACGIH	NIOSH	OSHA
Sodium Carbonate Peroxyhydrate	NA	NA	NA

Engineering Controls:	Avoid raising dust, Keep away from flames/heat. General room ventilation is required, maintain adequate ventilation. Emergency eye wash station should be in close proximity.
General Hygienic Practices:	Do not eat, drink or smoke during use. Wash hands with soap and water after use.

Personal Protective Equipment

Respiratory Protection:	For most conditions, no respiratory protection should be needed. For excessive dust condition: dust mask or NIOSH approved particulate respirator.
Eye / Face Protection:	Chemical goggles or face shield.
Hand Protection:	Chemical resistant gloves.
Skin / Body Protection:	Wear suitable protective clothing. Apron and boots made of butyl rubber for high risk exposure.

Section 9: Physical and Chemical Properties

Appearance:	White, granular solid.	Odor:	Odorless.	Odor Threshold:	NA
Physical State:	Powder.	pH:	10.4 – 10.6 in 3% solution.	Specific Gravity:	0.9 – 1.2 g/cm ³
Melting Point:	NA	Freezing Point:	NA	Boiling Point:	NA
Flash Point:	NA	Flammability:	NA	Flammability Limits:	NA
Vapor Pressure:	NA	Vapor Density:	NA	Solubility:	140 g/L at 20°C (68°F)
Evaporation Rate:	NA	Auto-Ignition Temperature:	NA	Decomposition Temperature:	SADT > 55°C (131°F)
Relative Density:	950-1200 kg/m ³	Partition Coefficient n-octanol / water:	NA	Viscosity:	NA

Section 10: Stability and Reactivity


Reactivity:	Decomposes when moist or when heated. Potential for exothermic hazard.
Stability:	Stable under recommended storage conditions.
Conditions to Avoid:	Heat/heat sources and moisture.
Incompatible Materials:	Water, strong acids/bases, salts of heavy metals, organic materials, reducing agents, flammables, combustibles.
Hazardous Decomposition Products:	Thermal decomposition generates carbon dioxide and oxygen which supports combustion.

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Section 11: Toxicological Information			
Acute Toxicological Data			
Oral LD50 Rat:	1034 mg/kg	Dermal LD50 Rabbit:	>2000 mg/kg
		Inhalation LC50 Rat:	1 hr – >4580 mg/m ³
Symptoms and Effects			
Condition	Acute Effects	Chronic (Delayed) Effects	
Eye Contact:	Causes serious eye damage.	None.	
Skin Contact:	May cause skin irritation.	None.	
Inhalation:	May cause respiratory tract irritation.	None.	
Ingestion:	Harmful if swallowed.	None.	

Section 12: Ecological Information			
Ecotoxicity:	Duration	Species	Value
	96 hr LC50	<i>Pimephales promelas</i> (fathead minnow)	71 mg/L
	96 hr EC50	<i>Daphnia pulex</i> (water flea)	4.9 mg/L
Persistence and Degradability:	Biodegrades rapidly into water and oxygen.		
Bioaccumulative Potential:	Does not bioaccumulate.		
Mobility in Soil:	Non-significant adsorption in soil.		
Results of PBT & vPvB:	This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).		
Other Adverse Effects:	None known.		

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 containers. Triple rinse empty containers with clean water. Clean and empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14: Transport Information						
UN Number	UN Proper Shipping Name		Hazard Class (Subsidiary)	Packing Group	IATA	Marine Pollutant
DOT 3378	Sodium Carbonate Peroxyhydrate		5.1	II	Permitted for shipment by air. (25kg)	No
TDG 3378	Sodium Carbonate Peroxyhydrate		5.1	II		
IMDG 3378	Sodium Carbonate Peroxyhydrate		5.1			
Special Precautions:	Vented containers					
Shipping Placards:						

Section 15: Regulatory Information						
TSCA Inventory List		US EPA CERCLA Hazardous Substances			Clean Water Act	
Sodium Carbonate Peroxyhydrate	Yes	Sodium Carbonate Peroxyhydrate	NA	NA		
SARA Title III						
	Sec. 302 TPQ.	Sec 304 RQ.	Sec 311 / Sec 312 Hazard Category		Sec 313	Clean Air Act Threshold Qty.
Sodium Carbonate Peroxyhydrate	NA	NA	Physical: Oxidizer Health: Acute Toxicity; Serious Eye Damage or Eye Irritation		NA	NA
NFPA 704 Rating	Health: 2	Flammability: 0	Reactivity: 1	Special:	OX (Oxidizer)	
HMIS Rating	Health: 2	Flammability: 0	Physical: 1	PPE:	Recommended.	
Uniform Fire Code (NFPA 400)	Oxidizer: Class 2, Solid.					
California Prop 65	This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm.					
FIFRA	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.					
NSF	Maximum use for potable water is 33 mg/L.					

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Section 16: Other Information

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

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