Certified to NSF/ANSI 60

Trade name: Lake Guard™ Oxy

SECTION 1: Identification

Product identifier used on the label:
Product Name: Lake Guard™ Oxy

Other means of identification:
Product Code Number: None known

Recommended use of the chemical and restrictions use:
Recommended use: Algaecide, biocide.
Recommended restrictions: Uses other than as recommended above.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Company Name: BlueGreen Water Technologies Ltd.
Company Address: 43 Brodezki st.
Tel Aviv
POB 39995
Israel, 6139803
Company Telephone: +972-3-6427111

Company Contact Email: info@bgtechs.com

Emergency phone number: **+1-800-255-3924**

SECTION 2: Hazard(s) identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200:

Physical hazards
Oxidizing solids, Category 3
Health hazards
Acute toxicity (Oral), Category 4
Serious eye damage, Category 1

Environmental hazards
Not adopted under OSHA paragraph (d) of §1910.1200

GHS Signal word: **DANGER.**

GHS Hazard statement(s):
May intensify fire; oxidizer.
Harmful if swallowed.
Causes serious eye damage.

GHS Hazard symbol(s):

GHS Precautionary statement(s):

Prevention:

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Wash thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Keep away from clothing and other combustible materials.
- Wear protective gloves/protective clothing/eye protection/face protection.

Response:

- If swallowed: Call a poison center/doctor if you feel unwell.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Immediately call a poison center or doctor/physician.
- Rinse mouth.
- In case of fire: Use appropriate media (see section 5) to extinguish.

Storage:

- Store locked up.

Disposal:

- Dispose of contents/container to an approved disposal site in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC): None known.

Percentage of ingredient(s) of unknown acute toxicity:
5-10% of the mixture consists of ingredients of unknown acute toxicity (oral).
5-10% of the mixture consists of ingredients of unknown acute toxicity (dermal).
5-10% of the mixture consists of ingredients of unknown acute toxicity (inhalation).

SECTION 3: Composition/information on ingredients

Chemical name	CAS#	Concentration (weight %)
Sodium percarbonate	15630-89-4	98%
Other ingredients	Proprietary	2%

Note: The balance of the ingredients is not classified as hazardous or are below the concentration limit to be classified as hazardous, under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

SECTION 4: First-aid measures

Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion:

Inhalation: Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Get medical attention if symptoms develop.

Skin contact: Wash with plenty of water. Remove contaminated clothing. If skin irritation occurs, get medical attention. Launder contaminated clothing before reuse.

Eye contact: In case of eye contact, remove contact lenses and rinse immediately with plenty of water, including under the eyelids, for at least 15 minutes. In the case of difficulty in opening the eyelids, administer an analgesic eye wash (oxybuprocaine). Get medical attention.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention if symptoms develop.

Most important symptoms/effects, acute and delayed:
Harmful if swallowed. Causes serious eye damage.
May cause nose, throat, and lung irritation if inhaled. Prolonged skin contact may cause skin irritation. If in contact with eyes: Symptoms: Redness; lachrymation; swelling of tissue.

Effects: Severe eye irritation; risk of serious damage to eyes. If ingested: Symptoms: Severe irritation; nausea; abdominal pain; vomiting; diarrhea.

Indication of immediate medical attention and special treatment needed:
If any symptoms are observed, contact a physician and give them this SDS sheet.

SECTION 5: Fire-fighting measures

Suitable (and unsuitable) extinguishing media:
Suitable extinguishing media: Use water spray/fog, alcohol-resistant foam, dry chemical or carbon dioxide as suitable for surrounding materials.
Unsuitable extinguishing media: Do not use direct streams of water such as water jet.

Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):
Oxidizing. Oxygen released in thermal decomposition may support combustion Contact with combustible material may cause fire. Contact with flammables may cause fire or explosions. Risk of explosion if heated under confinement.
Hazardous combustion products: During a fire, irritating and toxic gases may be generated by thermal decomposition or combustion.
Hazardous combustion products include CO (Carbon monoxide), CO_2 (Carbon dioxide), Oxygen.

Special protective equipment and precautions for fire-fighters: Wear self-contained breathing apparatus and protective clothing. Fight fire from a protected location. Wear self-contained breathing apparatus and protective clothing. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures: Wear appropriate protective equipment, such as gloves, goggles and protective clothing, as conditions warrant (see Section 8). Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid contact with skin and eyes. Evacuate personnel to safe areas. Keep out of the reach of children. See Sections 2 and 7 for additional information on hazards and precautionary measures.

Methods and materials for containment and cleaning up:
Pick up and arrange disposal without creating dust. Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Keep in suitable, closed containers for disposal. Prevent further leakage or spillage if safe to do so. Do not let product enter the drains. Do not allow to enter streams, rivers or any other waterways.

SECTION 7: Handling and storage

Precautions for safe handling: Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Keep out of the reach of children. Keep away from food and drinks. Keep away from heat and sources of ignition. Use only clean and dry utensils. Keep away from water. Wear appropriate protective equipment, such as gloves, goggles and protective clothing, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.
Follow good hygiene practices: Do not eat, drink or smoke in the workplace. Use only in an area equipped with a safety shower. Wash hands after use. Remove contaminated clothing before entering eating and smoking areas.

Conditions for safe storage, including any incompatibles: Keep product in a dry, cool, well-ventilated place. Keep only in the original container. Keep away from direct sunlight. Store in a receptacle equipped with a vent. Keep away from incompatible materials (see Section 10) and food / feedstuffs. Protect container(s) against physical damage, heat and moisture. Keep away from heat/sparks/open flames/hot surfaces. No smoking. To avoid thermal decomposition, do not overheat. Do not allow material to contaminate ground water system. Prevent product from entering drains.
Packaging material: Stainless steel, polyethylene, paper + PE coating.

SECTION 8: Exposure controls/personal protection

OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available.

US OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200) (Table Z-1 Limits for Air Contaminants):		
Substance	**PEL-TWA (8 hour)**	**PEL-STEL (15 min)**
Sodium percarbonate	No data available	No data available
Other ingredients	No data available	No data available

US ACGIH Threshold Limit Values		
Substance	**TLV-TWA (8 hour)**	**TLV-STEL (15 min)**
Sodium percarbonate	No data available	No data available
Other ingredients	No data available	No data available

US NIOSH Threshold Limit Values		
Substance	**TLV-TWA (8 hour)**	**TLV-STEL (15 min)**
Sodium percarbonate	No data available	No data available
Other ingredients Other ingredients	No data available	No data available

Appropriate engineering controls: During industrial use; use material in well-ventilated area only. Good general ventilation (typically 10 air changes per hour) should be sufficient in most cases. Ventilation rates should be matched to conditions. Maintain airborne levels to an acceptable level. Use appropriate personal protective equipment and clothing.

Individual protection measures, such as personal protective equipment:

Eye/face protection: Wear safety glasses with side shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH.

Skin and hand protection: Handle with gloves (e.g. nitrile rubber). Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as CEN (EU).

General hygiene considerations: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9: Physical and chemical properties

Appearance (physical state, color, etc.):	
Physical state:	Solid (granular)
Color:	Pure white (Neutrals 9/0.5)
Odor:	Odorless
pH:	10.4-10.6 (1% solution)
Melting point/freezing point:	Decomposition at T>140°C
Initial boiling point and boiling range:	Decomposition at T>140°C
Flash point: (open cup, ASTM 92-18)	>230°C
Evaporation rate:	No data available
Flammability (solid, gas):	Not applicable
Upper/lower flammability or explosive limits	
Flammability limit – lower %):	No data available
Flammability limit – upper (%):	No data available
Explosive limit – lower (%):	No data available
Explosive limit – upper (%):	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Bulk density:	700-1200 kg/m^3
Relative density:	1.93 g/cm^3
Solubility (ies):	soluble in water, solubility 140 g/L
Partition coefficient (n-octanol/water):	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	Self-accelerating decomposition with oxygen release starting from 65°C.
Viscosity (dynamic):	No data available

SECTION 10: Stability and reactivity

Reactivity:	Decomposes when moist, heated, direct sun and when contacts with acids, solvents, heavy metal salts**.**

Chemical stability:	Material is stable under normal conditions, at temperature <30°C**.**
Possibility of hazardous reactions:	Potential of exothermic hazard. Contact with combustible material may cause decomposition and fire. Contact with flammable compounds and its vapors may cause fire or explosions. Risk of explosion if heated under confinement. Fire or intense heat may cause violent rupture of packages.
Conditions to avoid:	Exposure to moisture. To avoid thermal decomposition, do not overheat more than 50°C.
Incompatible materials:	Avoid contact with water; acids; bases; heavy metal salts; reducing agents; organic materials; solvents, solvent vapors, flammable materials; combustible materials.
Hazardous decomposition Products:	If involved in a fire, Carbon oxides and oxygen may be generated. Long overheating more then 50°C oxygen be generated.

SECTION 11: Toxicological information

Information on likely routes of exposure:

Inhalation:	Expected to be a route of entry.
Ingestion:	Expected to be a route of entry.
Skin:	Expected to be a route of entry.
Eyes:	Expected to be a route of entry.

Symptoms related to the physical, chemical, and toxicological characteristics:
Harmful if swallowed. Causes serious eye damage.

Delayed and immediate effects and chronic effects from short or long-term exposure:
None known.

Numerical measures of toxicity (such as acute toxicity estimates):

Ingredient Information:

Substance	Test Type (species)	Value
Sodium percarbonate	LD_{50} Oral (Rat)	1,034 mg/kg
	LD_{50} Dermal (Rabbit)	> 2,000 mg/kg
	LC_0 Inhalation (Rat)	> 4,800 mg/m^3 - 1 h
Other ingredients	LD_{50} Oral (Rat)	>4000 mg/kg
	LD_{50} Dermal (Rabbit)	>4000 mg/kg
	LC_{50} Inhalation (Rat)	No data available

Skin corrosion/irritation: May cause skin irritation.

Serious eye damage/eye irritation: Causes serious eye damage.

Respiratory sensitization: Not expected to cause respiratory sensitization.

Skin sensitization: Not expected to cause allergic reactions.

Germ cell mutagenicity: No information available on the mixture, however none of the components have been classified for germ cell mutagenicity (or are below the concentration threshold for classification).

Carcinogenicity: This product does not contain any ingredient designated as probable or suspected human carcinogens by: NTP, IARC, OSHA, ACGIH.

Reproductive toxicity: Not expected to cause reproductive toxicity.
Carbonic acid sodium salt (1:2). Mouse, female.
Application Route: Oral.
NOAEL Teratogenicity: ≥ 580 mg/kg
NOAEL Maternal: ≥ 580 mg/kg
Method: according to a standardized method no embryotoxic or teratogenic effects have been observed.

Specific target organ toxicity-Single exposure: The substance or mixture is not expected to cause specific target organ toxicity after a single exposure.

Specific target organ toxicity-Repeat exposure: The substance or mixture is not expected to cause specific target organ toxicity after repeated exposure.

Aspiration hazard: This product is not anticipated to be an aspiration hazard if swallowed.

SECTION 12: Ecological information

Ecotoxicity (aquatic and terrestrial, where available):

Product data: No data on product, however none of the components are toxic to aquatic life.

Ingredient Information:

Substance	Test Type	Species	Value
Sodium percarbonate	LC_{50}	Fish - Pimephales promelas (fathead minnow)	71 mg/L – 48 h
	EC_{50}	Daphnia pulex (Freshwater waterflea)	4.9 mg/L – 48 h
	EC/LC_{50}	Algae	No data available
Other ingredients	LC_{50}	Fish	No data available
	EC_{50}	Daphnia magna (Water flea)	No data available
	EC/LC_{50}	Algae	No data available

Persistence and Degradability: This product is considered to be readily degradable (complete degradation within 24-48 hours).

Bioaccumulative Potential: No data available.

Mobility in Soil: Water: Considerable solubility and mobility.
Soil/sediments: Non-significant adsorption.

Other adverse effects (such as hazardous to the ozone layer): An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13: Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging.

All disposal methods must be in compliance with all federal, state/provincial and local laws and regulations. Waste characteristics and compliance with applicable laws are the responsibility solely of the waste generator. Dilute with plenty of water. Dispose of wastes in an approved waste disposal facility. Can be landfilled, when in compliance with local regulations.

Contaminated packaging: Contaminated packaging may contain traces of the product and therefore, should be disposed of in the same way as product.

Waste code: Environmental Protection Agency
Hazardous Waste – YES
RCRA Hazardous Waste (40 CFR 302)
D001 - Ignitable waste – (I)

SECTION 14: Transport Information

US Department of Transportation Classification (49CFR)

UN Number:	UN 3378
UN proper shipping name:	SODIUM PER-CARBONATE
Transport hazard class(s):	5.1
Packing group:	III

IMDG (Transport by sea)

UN Number:	UN 3378
UN proper shipping name:	SODIUM PER-CARBONATE
Transport hazard class(s):	5.1
Packing group:	III

IATA (Country variations may apply)

UN Number:	UN 3378
UN proper shipping name:	SODIUM PER-CARBONATE
Transport hazard class(s):	5.1
Packing group:	III

Environmental hazards
Marine pollutant: No

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)
No further relevant information available.

Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.
No data available.

SECTION 15: Regulatory Information

USA:

United States Federal Regulations: This SDS complies with the OSHA, 29 CFR 1910.1200. The product is classified as hazardous under OSHA.

Toxic Substances Control Act (TSCA) – All the ingredients are listed on the U.S. EPA TSCA Inventory List.

Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):
None of the ingredients is listed under SARA Title III, Section 302

SARA HAZARD DESIGNATION SECTIONS 311/312 (40 CFR 370):

Acute Health Hazard	NO
Chronic Health Hazard	NO
Fire Hazard	NO
Reactivity Hazard	NO
Sudden Release of Pressure Hazard	NO

Section 313 Toxic Chemicals (40 CFR 372.65):
None of the ingredients is listed under SARA Title III, Section 313

STATE REGULATIONS:

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986): None of the ingredients is listed on the California Proposition 65 list.

Massachusetts Right to Know: None of the ingredients is listed on the Massachusetts Right to Know list.

New Jersey Right to Know: None of the ingredients is listed on the New Jersey Right to Know list.

Pennsylvania Right to Know: None of the ingredients is listed on the Pennsylvania Right to Know List.

SECTION 16: Other Information

Revision Date: Jan. 17, 2019

DISCLAIMER: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 1910.1200. To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier nor any of its subsidiaries assumes any liability whatsoever for completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.