

BioGuard® Off Season Winter Shock II

Version:	1.1
Revision Date:	06/03/2008
Print Date:	12/04/2008

The recipient of this Safety Data Sheet is urged to study it carefully to become aware of hazards, if any, of the product involved. In the interest of safety you should (1) notify your employees, agents and contractors of the information on this sheet,(2) furnish a copy to each of your customers for the product, and (3) request your customers to inform their employees and customers as well.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: BioGuard® Off Season Winter Shock II
Product Use Description: Recreational Water Product
Chemical nature: Hypochlorite
EPA Registration Number: EPA REG. 5185-323

Company: Bio-Lab, Inc.
BioGuard
P.O. Box 300002
Lawrenceville, GA
30049-1002

Emergency telephone: CHEMTREC (US Transportation) :
(800) 424-9300
(703) 527-3887
Poison Control Center (Medical) :
(877) 800-5553

Customer Service: (800) 859-7946

Prepared by: Product Safety Department
(US) +1 866-430-2775
(EU) +44 (0) 1753.603.000
Email: MSDSRequest@chemtura.com

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

Form: granular
Colour: white
Odour: Chlorine

Corrosive
Oxidizer
Causes severe eye damage.
Causes skin burns.
May be fatal if swallowed.

OSHA Hazards:
THIS MATERIAL IS HAZARDOUS UNDER THE
CRITERIA OF THE FEDERAL OSHA HAZARD
COMMUNICATION STANDARD 29CFR 1910.1200.

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May be harmful if inhaled.
Causes respiratory tract irritation.
Avoid breathing dust or vapor.
Do not get in eyes, on skin, or on clothing.

Potential Health Effects

- Primary Routes of Entry : Inhalation
Skin contact
Eye contact
Ingestion
- Aggravated Medical Condition : Respiratory disorders
Skin disorders
- Inhalation : Harmful if inhaled.
Causes respiratory tract irritation.
- Skin : Causes skin burns.
On contact with moisture, this material readily hydrolyzes to acid which may result in burns if not promptly removed.
- Eyes : Causes severe eye damage.
- Ingestion : May be fatal if swallowed.
- Chronic Exposure : Prolonged inhalation of excessive levels of dust may cause lung damage.

SECTION 3.COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Component	CAS-No.	Concentration
lithium hypochlorite	13840-33-0	29 %
Sodium sulfate	7757-82-6	13 %
lithium chloride	7447-41-8	4 %
lithium carbonate	554-13-2	2 %
Lithium Chlorate	36355-96-1	3 %
lithium hydroxide	1310-65-2	1 %

SECTION 4. FIRST AID MEASURES

First aid procedures

Inhalation : Remove to fresh air.

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If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
Call a POISON CENTRE or doctor/physician.

- Skin contact : Remove contaminated clothing and shoes.
Rinse immediately with plenty of water for at least 15 minutes.
Call a POISON CENTRE or doctor/physician.
- Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses, if present, after 5 minutes, then continue rinsing eye.
Call a POISON CENTRE or doctor/physician.
- Ingestion : Call a physician or poison control centre immediately.
Have person sip a glass of water if able to swallow.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Do not give anything by mouth to a convulsing or unconscious person.

Notes to physician

- Treatment : Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5. FIRE-FIGHTING MEASURES

Flammable properties

- Flash point : not applicable

Protective equipment and precautions for firefighters

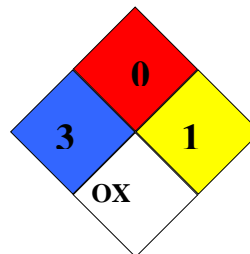
- Suitable extinguishing media : Flood with large volumes of water.
- Unsuitable extinguishing media : ABC powder
Dry chemical
Risk of violent reaction.
- Hazardous decomposition products : Chlorine containing gases can be produced.
Oxygen
- Further information : May cause or intensify fire; oxidizer.
Contact with combustible material may cause fire.
When in contact with other combustible materials, this product may increase the burning rate of the combustible material.
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.
Thoroughly decontaminate fire fighting equipment including all fire fighting wearing apparel after the incident.

Further information

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NFPA Classification : Health Hazard: 3
Fire Hazard: 0
Reactivity Hazard: 1
Specific hazards: OX Class
1 Oxidizer.



SECTION 6. ACCIDENTAL RELEASE MEASURES

Environmental precautions : Do not flush into surface water or sanitary sewer system.

Methods for containment /
Methods for cleaning up : Using appropriate protective clothing and safety equipment, contain spilled material.
Do not add water to spilled material.
Using clean dedicated equipment, sweep and scoop all spilled material, contaminated soil, and other contaminated material and place into clean dry containers for disposal.
Do not close containers containing wet or damp material. They should be left open to disperse any hazardous gases that may form.

Additional advice : Do not use floor sweeping compounds to clean up spills.
Do not transport wet or damp material.
Treat recovered material as described in the section "Disposal considerations".
Do not contaminate water, food or feed by storage or disposal or cleaning of equipment.

SECTION 7. HANDLING AND STORAGE

Handling

Advice on safe handling : Strong oxidizing agent.
Avoid breathing dust.
Avoid breathing vapors.
Avoid contact with skin, eyes and clothing.
Do not mix with other chemicals.
Mix only with water.
Never add water to this product.
Always add product to large quantities of water.
Use only clean and dry utensils.
Do not add this product to any dispensing devices containing remnants of any other product. Such use may cause a violent reaction leading to fire or explosion.
Contamination with moisture, organic matter or other chemicals may start a chemical reaction and generate heat, hazardous gas, possible fire and explosion.
In case of contamination or decomposition, do not reseal container.
If possible, isolate container in open air or well ventilated area.
Flood with large volumes of water.
Wash hands thoroughly with soap and water after handling and before eating,

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drinking or using tobacco.
Do not handle until all safety precautions have been read and understood.

Storage

Requirements for storage areas and containers : Store in original container.
Store in a cool, dry, well ventilated area away from heat or open flame.
For bags: Store dry product in its original unopened bag until use. For partially used bags, fold over top of bag and secure with adhesive tape.
Keep out of reach of children.
Keep away from animals.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures

Engineering measures : Use with adequate ventilation.
Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye protection : Goggles
Safety glasses with side-shields

Hand protection : Wear rubber gloves.

Respiratory protection : A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Hygiene measures : Wash contaminated clothing before reuse.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form : granular

Colour : white

Odour : Chlorine

Safety data

Flash point : not applicable

Ignition temperature : Remarks: Not Available

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Oxidizing properties : Oxidizer

pH : 11
at
77 °F (25 °C)
1% Solution

Melting point/range : 275 °F (135 °C)
Decomposes

Boiling point/boiling range : not applicable

Density : 56.2 - 62.4 lb/ft3

Water solubility : 430 g/l

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid : High temperatures.
Poor ventilation.
Contamination
Moisture/high humidity.

Materials to avoid : Avoid contact with water on concentrated material in the container. Avoid contact with easily oxidizable material; ammonia, urea, or similar nitrogen containing compounds; inorganic reducing compounds; floor sweeping compounds; chlorinated isocyanurates; other swimming pool/spa chemicals in their concentrated form; acids. Avoid contact with all other chemicals.

Hazardous decomposition products : Type: Hazardous decomposition products

Chlorine containing gases can be produced.
Oxygen

Hazardous reactions : Hazardous polymerisation does not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50 rat
Dose: 555 mg/kg

Acute dermal toxicity : LD50 rabbit
Dose: 8,100 mg/kg

Acute inhalation toxicity : LC50 rat
Dose: 2.0 mg/l
This material in the form as sold is not expected to produce respiratory effects.
If ground or otherwise in a powdered form, effects similar to a corrosive substance may occur.

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- Skin irritation : Non-corrosive, Corrositex In-Vitro Skin Corrosion (34.6% lithium hypochlorite)
- Eye irritation : rabbit
Result: Severe eye irritation
- Sensitisation : This product is not expected to be a skin sensitizer.

SECTION 12. ECOLOGICAL INFORMATION

- Acute Fish toxicity : LC50
Species: Oncorhynchus mykiss (rainbow trout)
Concentration: 0.69 mg/l
Exposure time: 96 h
- LC50
Species: Bluegill sunfish
Concentration: 0.97 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates. : LC50
Species: Daphnia magna (Water flea)
Concentration: 0.37 mg/l
Exposure time: 48 h
- Additional ecological information : Toxic to fish.
Toxic to aquatic organisms.
Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

SECTION 13. DISPOSAL CONSIDERATIONS

- Further information : Dispose of waste material in compliance with all federal, state, and local regulations.
Improper disposal of excess product, spray mixture or rinsate is a violation of Federal Law.
If these wastes cannot be disposed of by use according to label instructions, contact your Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance. For registered pesticides, contact your State Pesticide Agency.
Do not put product, spilled product, or filled or partially filled containers into the trash or waste compactor.
Contact with incompatible materials could cause a reaction or fire.
Do not contaminate ponds, waterways or ditches with chemical or used container.

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Contaminated packaging : Do not re-use empty containers.
Rinse thoroughly before discarding in trash.
Offer rinsed packaging material to local recycling facilities.

SECTION 14. TRANSPORT INFORMATION

DOT UN-Number : 1479
Proper shipping name : Oxidizing solid, n.o.s.
Proper technical name (LITHIUM HYPOCHLORITE, MIXTURE)
Class : 5.1
Packing group : III

IATA UN-Number : 1479
Proper shipping name : Oxidizing solid n.o.s.
Proper technical name (LITHIUM HYPOCHLORITE, MIXTURE)
Class : 5.1
Packing group : III

IMDG UN-Number : 1479
Proper shipping name : OXIDIZING SOLID, N.O.S.
Proper technical name (LITHIUM HYPOCHLORITE, MIXTURE)
Class : 5.1
Packing group : III

Not recommended for shipment by air
Limited Quantity exemption possible
ORM-D Consumer Commodity exemption possible

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SECTION 15. REGULATORY INFORMATION

National regulatory information

OSHA Hazards : This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

SARA Hazard category : Acute Health Hazard
Reactivity Hazard

US State Regulations

US MA RTK (Component) : US. The Commonwealth of Massachusetts Department of Public Health; Massachusetts Right-to-know law, The Massachusetts Substance List, 105 CMR 670.000

Massachusetts hazardous substance

Sodium sulfate	7757-82-6	13 %
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US NJ RTK (Component) : US. New Jersey Department of Environmental Protection -; Bureau of Hazardous Substances New Jersey Right to Know Law, Hazardous Substance List [P.L. 1983, C. 315, NJSA 34:5A-1 et seq]

hazardous substance

lithium hypochlorite	13840-33-0	29 %
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US PA RTK (Component) : US. Commonwealth of Pennsylvania - Department of Labor and Industry; Pennsylvania Code Title 34, Labor and Industry Chapter 323

environmental hazard, hazardous substance

Sodium sulfate	7757-82-6	13 %
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The components of this product are reported in the following inventories:
TSCA

Additional advice :

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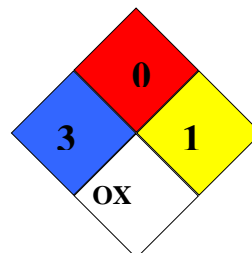
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FIFRA (Federal Insecticide, Fungicide, Rodenticide Act): This product is a registered pesticide.

SECTION 16. OTHER INFORMATION

Further information

NFPA Classification : Health Hazard: 3
Fire Hazard: 0
Reactivity Hazard: 1
Specific hazards: OX Class 1
Oxidizer.



HMS Classification : Health Hazard: 3
Flammability: 0
Physical and chemical hazards: 1
PPI: Ask supervisor or safety specialist for handling instructions

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Since the use of this information and of these opinions and the conditions of use of this product are not within the control of the seller, it is the user's obligation to determine the conditions of safe use of the products.