

Material Safety Data Sheet

SPAGUARD® OXIDIZER ENHANCED SHOCK

Version: 1.1

Revision Date: 12/27/2010

Print Date: 05/31/2012

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: *SPAGUARD® OXIDIZER ENHANCED SHOCK*

Product Use Description: Recreational Water Product

Chemical nature: Chlorinated Isocyanurates

Registration number: 5185-475

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

Telephone: (800) 859-7946

Emergency telephone number: CHEMTREC: (24 hours) 800-424-9300, 703-527-3887
Poison Control Center (Medical) :: (877) 800-5553
Chemtura Corporation Emergency Response: CHEMTURA : 800-292-5898

For additional emergency telephone numbers see section 16 of the Safety Data Sheet.

Prepared by: Product Safety Department
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SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Danger

Form: granules Colour: white Odour: Chlorine

Hazard Summary

: Corrosive
Oxidizer
Causes serious eye damage.
Harmful if swallowed.
Harmful if absorbed through skin.
Avoid breathing dust or vapor.
Irritating to skin.
May be harmful if inhaled.
May cause sensitization by skin contact.

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Do not get in eyes, on skin, or on clothing.

OSHA Hazards

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

Potential Health Effects

Primary Routes of Entry

: Skin contact
Eye contact
Inhalation
Ingestion

Aggravated Medical Condition

: Respiratory disorders
Skin disorders

Inhalation

: Causes respiratory tract irritation.

Skin

: Causes skin irritation.
May cause allergic skin reaction.
On contact with moisture, this material readily hydrolyzes to acid which may result in burns if not promptly removed.

Eyes

: Causes serious eye damage.

Ingestion

: Harmful if swallowed.

Chronic Exposure

: This product contains a boron compound. This boron compound when fed to test animals at very high doses, has shown reproductive and developmental toxicity. When this product is used according to label directions, the boron compound in this product does not represent a practical risk to man.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Component	CAS-No.	Weight percent
Sodium Dichloro-S-Triazinetrione	2893-78-9	58.2 %
sodium persulfate	7775-27-1	15 - 25 %
aluminium sulfate	10043-01-3	5 - 15 %
Boron salt		5 - 15 %

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SECTION 4. FIRST AID MEASURES

First aid procedures

- Inhalation : Remove to fresh air.
If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
Call a POISON CENTER or doctor/ physician.
- Skin contact : Remove contaminated clothing and shoes.
Rinse immediately with plenty of water for at least 30 minutes.
Call a POISON CENTER or doctor/ physician.
- Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 30 minutes.
Remove contact lenses, if present, after 5 minutes, then continue rinsing eye.
Call a POISON CENTER 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 : Remarks: not applicable

Fire fighting

- Suitable extinguishing media : Flood with large volumes of water.
- Unsuitable extinguishing media : ABC powder
Dry powder
Risk of violent reaction.
- Further information : When ignited, will burn with the evolution of noxious chlorine containing gases.
Do not let fire burn.
Oxidizer Test Results: This product was not classified as an oxidizer when tested by the UN Oxidizer Test.
Nitrogen trichloride can be generated slowly by the reaction of small quantities of water with a high concentration of this product. Nitrogen trichloride can present an explosion hazard. Immediately after a fire has been extinguished, check for wet or damp material. Any spilled material from burned or broken containers should be assumed contaminated. Neutralize to a non-oxidizing material for safe

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disposal. Do not attempt to re-close broken containers, even for movement to the disposal area. They should be left open to disperse any nitrogen trichloride that may form. Material which appears undamaged except for being damp on the outside, should be opened and inspected immediately. If the plastic liner (where applicable) of the container is damaged or the material is damp, the material should be chemically treated if allowable, to a non-oxidizing material for safe disposal. Bulging containers require extreme care. Contact the fire department.

Protective equipment and precautions for firefighters

Specific hazards during fire fighting : Under extreme heat (greater than 400F), this product will evolve noxious chlorine containing gases.

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.

SECTION 6. ACCIDENTAL RELEASE MEASURES

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

Methods for containment / Methods for cleaning up : Clean-up methods - large spillage
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.
Clean-up methods - small spillage
In case of spills, scoop up and place product in pool or spa water, then flood spilled area with large volumes of water.

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

Handling procedures : Avoid contact with skin, eyes and clothing.
Avoid breathing dust.
Avoid breathing vapors.
Contains a strong oxidizing agent.
Do not mix with other chemicals.
Mix only with water.

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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.
Flood with large volumes of water.
Wash hands thoroughly with soap and water after handling and before eating, drinking or using tobacco.
Do not handle until all safety precautions have been read and understood.

Storage

Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place.
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.
For bottles: Store dry product in original tightly closed container when not in use.
Keep out of reach of children.
Keep away from animals.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Components with workplace control parameters

Components / CAS-No.	Value / Basis / Update	Control parameters	Further information
Boron salt	TWA OSHA P0 1989-01-19	10 mg/m3	
	TWA ACGIH 2007-01-01	2 mg/m3	
	STEL ACGIH 2007-01-01	6 mg/m3	

Engineering measures

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

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Personal protective equipment

- Eye protection : Safety glasses with side-shields
- Hand protection : For prolonged or repeated contact use protective gloves.
Wear rubber gloves.
not required under normal use
- 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 : granules
- Colour : white
- Odour : Chlorine

Safety data

- Flash point : Note: not applicable
- pH : 5 - 5.5
Note: 1% Solution
- Melting point/range : 522 °F (272 °C)
- Boiling point/boiling range : Note: not applicable
- Vapour pressure : Note: no data available
- Density : 1.0 g/cm³
- Water solubility : 250 g/l
- Relative vapour density : Note: Not Available

SECTION 10. STABILITY AND REACTIVITY

- Conditions to avoid : Remarks: High temperatures.
Poor ventilation.

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Contamination
Moisture/high humidity.

Materials to avoid : Remarks: 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; calcium hypochlorite; other swimming pool/spa chemicals in their concentrated form; alkalis. Avoid contact with all other chemicals.

Hazardous decomposition products : Note: Chlorine containing gases can be produced.

Hazardous reactions : Hazardous polymerisation does not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50: 599 mg/kg
Species: rat

: LD50: 862 mg/kg
Species: rat

Acute inhalation toxicity
Sodium Dichloro-S-
Triazinetrione : LC50: 0.27 - 1.17 mg/l
Exposure time: 4 h
Species: rat

Boron salt : LC50: 0.27 - 1.17 mg/l

Acute dermal toxicity : LD50: ca. 5,000 mg/kg
Species: rat

Skin irritation : Remarks: Irritating to skin.

Eye irritation : Remarks: Corrosive - causes irreversible eye damage.

Sensitisation : Remarks: Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Toxicology Assessment

CMR effects : Mutagenicity:
No mutagenic data are available for the product, although aluminum sulfate, a component of this product, has been shown to cause mutagenic effects in the mammalian chromosomal aberration test in

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human lymphocytes, but is not mutagenic in other in vitro tests. There is no indication that aluminum sulfate is carcinogenic or affects fertility. When this product is used according to label directions, the aluminum sulfate in this product does not present a practical health risk. (EN)

12. ECOLOGICAL INFORMATION

Toxicity to fish
sodium persulfate

: LC50: 771 mg/l
Exposure time: 96 h

aluminium sulfate

Species: Lepomis macrochirus (Bluegill)
static test
: LC50: 37 mg/l
Exposure time: 96 h

Species: Gambusia affinis (Mosquito fish)
static test
LC50: 33.9 mg/l
Exposure time: 96 h

Species: Pimephales promelas (fathead minnow)
flow-through test

Toxicity to daphnia and other aquatic invertebrates.

sodium persulfate

: EC50: 133 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)

aluminium sulfate

: LC50: ca. 6.57 mg/l
Exposure time: 48 h

Boron salt

: > 100 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)

Toxicity to algae

Boron salt

: > 100 mg/l
Exposure time: 72 h
Species: Algae

Bioaccumulation

aluminium sulfate

: Remarks:
Bioaccumulation is unlikely.

Further information on ecology

Additional ecological
information

: Toxic to fish.
Toxic to aquatic organisms.

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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.
Do not use treated pool water on plants or lawns as this product and other pool chemicals could cause damage. (EN)

SECTION 13. DISPOSAL CONSIDERATIONS

- Further information : 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.
- 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

Not dangerous goods

IATA

- UN number : 1759
Description of the goods : Corrosive solid, n.o.s.
(SODIUM DICHLORO-S-TRIAZINETRIONE)
Class : 8
Packing group : II

IMDG

- UN number : 1759
Description of the goods : CORROSIVE SOLID, N.O.S.
(SODIUM DICHLORO-S-TRIAZINETRIONE)

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Class : 8
Packing group : II
EmS Letter 1 : F-A
EmS Letter 2 : S-B

Marine pollutant : yes

SODIUM DICHLORO-S-TRIAZINETRIONE

Not recommended for shipment by air

Not regulated by DOT and TDG if shipped or transported in packaging less than 400KG
by road and/or rail.

SECTION 15. REGULATORY INFORMATION

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

CERCLA Reportable Quantity : 5000 lbs

SARA 311/312 Hazards : Acute Health Hazard
Fire Hazard
Reactivity Hazard

The components of this product are reported in the following inventories:

EINECS : On the inventory, or in compliance with the inventory

TSCA : On TSCA Inventory

AICS : Not in compliance with the inventory

DSL : All components of this product are on the Canadian DSL list.

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

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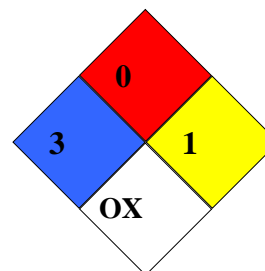
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SECTION 16. OTHER INFORMATION

Further information

HMIS Classification : Health hazard: 3
Flammability: 0
Physical hazards: 1
PPI: Ask supervisor or safety specialist for handling instructions

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



Other Emergency Phone Number

<u>Latin America:</u>	Brazil	+52 113 711 91 44
	All other countries	+44 (0)208 762 8322
<u>Mexico:</u>		+52 555 004 87 63

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.