

**BioGuard® Smart Sticks**

Version:	1.0
Revision Date:	03/25/2008
Print Date:	05/28/2008

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® Smart Sticks  
Product Use Description: Swimming Pool Product  
Chemical nature: Chlorinated Isocyanurates  
EPA Registration Number: 5185-403

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: Cylinder shaped sticks  
Colour: white  
Odour: Chlorine

Corrosive  
Oxidizer  
Causes severe eye damage.  
Causes skin burns.  
Harmful or 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 fatal if inhaled.  
Causes respiratory tract irritation.  
Do not get in eyes, on skin, or on clothing.  
Avoid breathing dust or vapor.

**Potential Health Effects**

- Primary Routes of Entry : Eye contact  
Skin contact  
Inhalation  
Ingestion
  
- Aggravated Medical Condition : Skin disorders  
Respiratory disorders
  
- Inhalation : May be fatal 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 : Harmful or fatal if swallowed.
  
- Chronic Exposure : None known.

**SECTION 3.COMPOSITION/INFORMATION ON INGREDIENTS**

**Hazardous components**

Component	CAS-No.	Concentration
Trichloro-s-triazinetriene	87-90-1	96.5 %
Proprietary additive		2.5 %

**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 physician or poison control centre immediately.
  
- Skin contact : Remove contaminated clothing and shoes.  
Rinse immediately with plenty of water for at least 15 minutes.

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Call a physician or poison control centre immediately.

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 physician or poison control centre immediately.

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 powder  
Risk of violent reaction.

Hazardous decomposition products : Chlorine containing gases can be produced.

Further information : Do not let fire burn.

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

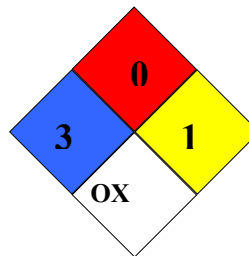
Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.  
Thoroughly decontaminate fire fighting equipment including all fire fighting wearing apparel after the incident.

**Further information**

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



**Additional advice** : 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 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.

**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 contact with skin, eyes and clothing.  
Avoid breathing dust.  
Avoid breathing vapors.  
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

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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, 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.  
Temperature not to exceed 52 C (125F) for 24 hours.  
Keep container closed when not in use.  
Store in a cool, dry, well ventilated area away from heat or open flame.  
Keep out of reach of children.  
Keep away from animals.

**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Engineering measures**

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

**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 : Cylinder shaped sticks

Colour : white

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Odour : Chlorine

**Safety data**

Flash point : not applicable

pH : 3 - 3.5  
at  
77 °F (25 °C)  
1% Solution

Boiling point/boiling range : not applicable

Vapour pressure : Not Available

Density : 0.88 - 0.96 g/cm3

Water solubility : 1 g/l  
at 77 °F (25 °C)

Relative vapour density : Not Available

**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; calcium hypochlorite; other swimming pool/spa chemicals in their concentrated form; alkalis. Avoid contact with all other chemicals.

Hazardous decomposition products : Chlorine containing gases can be produced.

Thermal decomposition : 225 - 230 °C (437 - 446 °F)

Hazardous reactions : Hazardous polymerisation does not occur.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity : LD50 rat male  
Dose: 599 mg/kg

Acute dermal toxicity : rat  
Dose: > 2,000 mg/kg

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- Acute inhalation toxicity : 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. May cause severe irritation of the respiratory tract with coughing, choking, pain and possibly burns of the mucous membranes.
- Skin irritation : Direct contact with wet material or moist skin may cause severe irritation, pain and possibly burns.
- Eye irritation : Causes severe eye damage.

**SECTION 12. ECOLOGICAL INFORMATION**

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.

**Component:**

Trichloro-s-triazinetrione

87-90-1

Toxicity to fish:

LC50  
Species: Oncorhynchus mykiss (rainbow trout)  
Dose: 0.24 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates.:

LC50  
Species: Daphnia magna (Water flea)  
Dose: 0.21 mg/l  
Exposure time: 48 h

Toxicity to algae:

EC50  
Species: Algae  
Dose: 655 mg/l  
Exposure time: 96 h

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**SECTION 13. DISPOSAL CONSIDERATIONS**

- Further information : Dispose of waste material in compliance with all federal, state, and local regulations.  
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 contaminate ponds, waterways or ditches with chemical or used container.  
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.  
Improper disposal of excess product, spray mixture or rinsate is a violation of Federal Law.
- Contaminated packaging : Do not re-use empty containers.  
Rinse thoroughly before discarding in trash.

**SECTION 14. TRANSPORT INFORMATION**

- DOT** UN-Number : 2468  
Proper shipping name : Trichloroisocyanuric acid, dry, mixture  
Class : 5.1  
Packing group : II
- IATA** UN-Number : 2468  
Proper shipping name : Trichloroisocyanuric acid, dry, mixture  
Class : 5.1  
Packing group : II
- IMDG** UN-Number : 2468  
Proper shipping name : TRICHLOROISOCYANURIC ACID, DRY, MIXTURE  
Class : 5.1  
Packing group : II

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** : Fire Hazard  
Acute Health Hazard  
Reactivity Hazard

**TSCA 8D (Component)** : US. Toxic substances control, title 15-commerce and trade, chapter 53-subchapter i-control of toxic substances 2607, reporting and retention of information.

Proprietary additive		2.5 %
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**TSCA 8AP (Component)** : US. Toxic substances control, title 15-commerce and trade, chapter 53-subchapter i-control of toxic substances 2607(a).

Proprietary additive		2.5 %
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**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

Trichloro-s-triazinetrione	87-90-1	96.5 %
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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

Trichloro-s-triazinetrione	87-90-1	96.5 %
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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

hazardous substance

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Trichloro-s-triazinetriene	87-90-1	96.5 %
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The components of this product are reported in the following inventories:  
TSCA

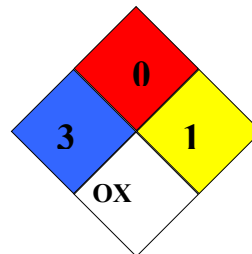
**Additional advice :**

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  
Reactivity: 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.