

**BioGuard® Algicide 28-40**

Version:	1.0
Revision Date:	05/02/2008
Print Date:	05/22/2008

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® Algicide 28-40  
Product Use Description: Recreational Water Product  
Chemical nature: Quaternary ammonium compounds  
EPA Registration Number: 6836-157-5185  
  
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: liquid  
Colour: blue  
Odour: Almond-like

Corrosive  
Causes severe eye damage.  
May be fatal if swallowed.  
May be corrosive to skin.  
Avoid breathing vapors.

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

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

**Potential Health Effects**

- Primary Routes of Entry : Skin contact  
Inhalation  
Ingestion  
Eye contact
- Inhalation : Irritating to respiratory system.
- Skin : Causes skin burns.
- Eyes : Causes severe eye damage.
- Ingestion : May be fatal if swallowed.
- Chronic Exposure : None known.

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

**Hazardous components**

Component	CAS-No.	Concentration
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	40 %
ethanol	64-17-5	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 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.

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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. Measures against circulatory shock, respiratory depression and convulsion may be needed.

**SECTION 5. FIRE-FIGHTING MEASURES**

**Flammable properties**

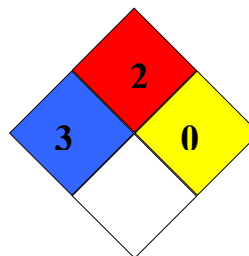
Flash point : 143.01 °F (61.67 °C)  
Method: Pensky-Martens closed cup ASTM D 93

**Protective equipment and precautions for firefighters**

- Suitable extinguishing media : Water mist  
Carbon dioxide (CO2)  
Dry chemical  
Foam
- Hazardous decomposition products : Organic vapors.  
Inorganic vapors.  
Carbon oxides
- Further information : Products of combustion are toxic.  
Heated solvent vapors can travel to an ignition source and flash back.
- 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.
- Advice on protection against fire and explosion : Heated solvent vapors can travel to an ignition source and flash back.

**Further information**

**NFPA Classification** : Health Hazard: 3  
Fire Hazard: 2 Class IIIA  
Combustible Liquid  
Reactivity Hazard: 0



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**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.  
Soak up with inert absorbent 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.
- Additional advice : 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 : Avoid contact with skin, eyes and clothing.  
Avoid breathing vapors.  
Mix only with water.  
Always add product to large quantities 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.

- Advice on protection against fire and explosion : Heated solvent vapors can travel to an ignition source and flash back.

**Storage**

- Requirements for storage areas and containers : Store in original container.  
Keep tightly closed.  
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**

**Exposure Guidelines**

**Components with workplace control parameters**

Components / CAS-No.	Value - Basis - Update	Control parameters	Further information
ethanol 64-17-5	TWA ; ACGIH 1996-05-18	1,000 ppm 1,880 mg/m3	A4: The agent (mixture, or exposure circumstance) is not classifiable as to its carcinogenicity to humans. Refers to Appendix A -- Carcinogens.
ethanol	TWA ; OSHA PO 1989-03-01	1,000 ppm 1,900 mg/m3	

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64-17-5			
ethanol 64-17-5	TWA ; OSHA P1 1993-06-30	1,000 ppm 1,900 mg/m3	

**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 : liquid

Colour : blue

Odour : Almond-like

**Safety data**

Flash point : 143.01 °F (61.67 °C)  
Method: Pensky-Martens closed cup ASTM D 93

pH : 7 - 8

Freezing point : Not Available

Boiling point/boiling range : Not Available

Vapour pressure : Not Available

Density : 0.92 g/cm3

Water solubility : completely miscible

Relative vapour density : Not Available

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**SECTION 10. STABILITY AND REACTIVITY**

- Conditions to avoid : High temperatures.  
Poor ventilation.  
Contamination
- Materials to avoid : Strong acids  
Strong oxidizing agents  
Strong bases  
Do not mix with other swimming pool/spa chemicals in their concentrated forms.
- Hazardous decomposition products : Type: Hazardous decomposition products  
  
Organic vapors.  
Inorganic vapors.  
Carbon oxides
- Hazardous reactions : Hazardous polymerisation does not occur.

**SECTION 11. TOXICOLOGICAL INFORMATION**

- Acute oral toxicity : LD50 rat  
Dose: 970 g/kg  
The following toxicological data shown are those obtained from tests on products of similar composition.
- Acute dermal toxicity : LD50 rabbit  
Dose: 2,000 g/kg  
The following toxicological data shown are those obtained from tests on products of similar composition.
- Skin irritation : May cause burns or external ulcers.
- Eye irritation : Causes eye burns.

**SECTION 12. ECOLOGICAL INFORMATION**

- Additional ecological information : Toxic to fish.  
Do not discharge effluent containing this product into lakes, streams, ponds or

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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.
- Contaminated packaging : Rinse thoroughly before discarding in trash.  
Offer rinsed packaging material to local recycling facilities.

**SECTION 14. TRANSPORT INFORMATION**

- DOT** UN-Number : 1760  
Proper shipping name : Corrosive liquids, n.o.s.  
Proper technical name : (CONTAINS QUATERNARY AMMONIUM COMPOUND, CONTAINS ETHYL ALCOHOL)  
Class : 8  
Packing group : II
- IATA** UN-Number : 1760  
Proper shipping name : Corrosive liquid n.o.s.  
Proper technical name : (CONTAINS QUATERNARY AMMONIUM COMPOUND, CONTAINS ETHYL ALCOHOL)  
Class : 8  
Packing group : II
- IMDG** UN-Number : 1760  
Proper shipping name : CORROSIVE LIQUID, N.O.S.  
Proper technical name : (CONTAINS QUATERNARY AMMONIUM COMPOUND, CONTAINS ETHYL ALCOHOL)  
Class : 8  
Packing group : II

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

**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  
  
teratogen, sufficient evidence for teratogenic risk in humans, Massachusetts hazardous substance  
  
ethanol || 64-17-5 || 5 %

**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]  
  
special health hazard substance, special health hazard, flammable - third degree  
  
ethanol || 64-17-5 || 5 %

**US PA RTK (Component)** : US. Commonwealth of Pennsylvania - Department of Labor and Industry; Pennsylvania Code Title 34, Labor and Industry Chapter 323  
  
hazardous substance  
  
ethanol || 64-17-5 || 5 %  
  
hazardous substance  
  
ethanol || 64-17-5 || 5 %

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

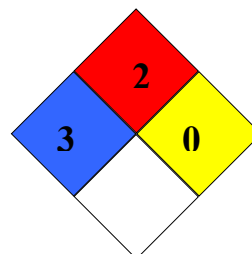
**Additional advice :**

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: 2 Class IIIA  
Combustible Liquid  
Reactivity Hazard: 0



**HMS Classification** : Health Hazard: 3  
Flammability: 2  
Physical and chemical hazards: 0  
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.