

## MSDS - Material Safety Data Sheet

### Material Safety Data Sheet Clear Bath<sup>®</sup> Algae Inhibitor

#### Section 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION INFORMATION

This document has been prepared to meet the requirements of the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200; the Canada's Workplace Hazardous Materials Information System (WHMIS); the EC Directive, 1907/2006/EC, Article 31 and Directive 98/24/EC. The sheet information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Spectrum shall not be held liable for any damage resulting from handling or from contact with the product.

**Product Trade Name:** Clear Bath<sup>®</sup> Algae Inhibitor

**Company Identification:** Spectrum Laboratories, Inc.  
18617 Broadwick Street  
Rancho Dominguez, CA 90220-6435, USA

**Company Phone Number:** (800) 634-3300

**Emergency Phone Number:** (800) 424-9300

**CHEMTREC Phone Number, US:** (800) 424-9300

**CHEMTREC Phone Number, Europe:** +1 703-527-3887

**For non-emergency assistance, call:** (800) 634-3300

#### Section 2 – COMPOSITION AND INFORMATION ON INGREDIENTS

CAS #	Chemical Name	Weight%	EINECS/ELINCS
68424-85-1	Alkyl (C12-C16) dimethyl benzyl ammonium chloride	50%	270-325-2
64-17-5	Ethyl Alcohol	NMT 10%	200-578-6
7732-18-5	Water	NLT 40%	231-791-2

#### Section 3 – HAZARDS IDENTIFICATION

##### EMERGENCY OVERVIEW

**HMIS Rating:** (estimated)

Health: 3; Flammability: 2; Reactivity: 0

**NFPA Rating:** (estimated)

Health: 3; Flammability: 2; Reactivity: 0

Appearance: almost colorless liquid

**Danger! Corrosive.** Causes eye and skin burns.

**Flammable liquid and vapor.** May cause severe respiratory and digestive tract irritation with possible burns. May cause central nervous system depression. May cause liver and kidney damage. May cause fetal effects. Flash Point: 41.7°C.

**Target Organs:** Kidneys, Central nervous system, Liver

##### Potential Health Effects:

**Eye Contact:**

Causes eye burns. Vapors may cause eye irritation. May cause painful sensitization to light. May cause chemical conjunctivitis and corneal damage.

**Skin Contact:**

Causes skin burns. May cause cyanosis of the extremities.

## MSDS - Material Safety Data Sheet

<b>Ingestion:</b>	May cause systemic toxicity with acidosis. May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. May cause liver and kidney damage. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.
<b>Inhalation:</b>	Inhalation of high concentrations may cause central nervous system effects, characterized by nausea, headache, dizziness, unconsciousness and coma. May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. May cause effects similar to those described for ingestion. May cause burns to the respiratory tract. Aspiration may lead to pulmonary edema. Vapors may cause dizziness or suffocation. May cause burning sensation in the chest.
<b>Chronic Effects:</b>	Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated eye contact may cause conjunctivitis. May cause liver and kidney damage. May cause fetal effects.

---

### Section 4 – FIRST AID MEASURES

<b>Eye Contact:</b>	Immediately wash eyes after any exposure with plenty of water for 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed.
<b>Skin Contact:</b>	Immediately flush skin with plenty of water for 15 minutes. Remove contaminated clothing. If irritation persists, get medical attention. Wash contaminated clothing before reuse.
<b>Ingestion:</b>	Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. If swallowed and if victim is conscious, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
<b>Inhalation:</b>	If symptoms are experienced, remove source of contamination or move victim to fresh air. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If not breathing, apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask. If symptoms persist, get medical attention.

#### NOTE TO PHYSICIAN:

Accurate effect may include mucosal damage, severe laryngeal edema and shock associated with corrosive agents. Alcohol can increase toxic effects. Delayed effects may include life threatening respiratory paralysis, convulsions and necrotic or fatty changes in the heart, liver and kidneys.

---

### Section 5 – FIRE FIGHTING MEASURES

<b>Flash Point:</b>	41°C/107°F PMCC
<b>Auto Ignition Temperature:</b>	Not applicable
<b>Lower Explosion Limit (%):</b>	2
<b>Upper Explosion Limit (%):</b>	12

**NFPA Rating:** (estimated) Health: 3; Flammability: 2; Reactivity: 0

**Extinguishing Media:** Foam, CO2, Dry Chemical, Water Fog, Other

**Fire-fighting Equipment/Procedures:** MUST WEAR MSHA/NIOSH approved self-contained breathing apparatus. Cool fire-exposed containers with water spray.

**Hazardous Combustion Products:** Irritating and toxic gases or fumes may be released during a fire. Products of combustion are toxic.

**Unusual Fire Explosion Hazards:** Heated solvent vapors can travel to an ignition source and flash back. Explosive mixtures can form with air.

## MSDS - Material Safety Data Sheet

### Section 6 – ACCIDENTAL RELEASE MEASURES

**Spill and Leak procedures:** Absorb spill with inert material (e.g., vermiculite, sand, earth or other non-combustible material), then place in suitable container. Keep spill out of sewers and open bodies of water. Clean up spills immediately. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. A vapor suppressing foam may be used to reduce vapors. Large spills: Dike far ahead of liquid spill for later disposal. Water spray may reduce vapor; but may not prevent ignition in closed spaces.

**CAUTION:** Floors may become slippery.

**Note:** Please see Section 8 for special protection information

---

### Section 7 – HANDLING & STORAGE

**Handling:** Wash thoroughly after handling. Use only in a well-ventilated area. Do not get in eyes, on skin, or on clothing. Use spark-proof tools and explosion proof equipment. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid). Keep away from heat, sparks and flame. Observe all warnings and precautions listed for the product.

**Storage:** Keep away from heat, sparks and flame. Keep away from sources of ignition. Store in a tightly closed container and protect from physical damage. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

---

### Section 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION INFORMATION

<b>Respiratory Protection:</b>	None required if good ventilation is maintained. Otherwise water suitable MSHA/NIOSH approved respirator where vapor concentrations are encountered.
<b>Protective Gloves:</b>	Impervious
<b>Eye Protection:</b>	Splash-proof safety goggles.
<b>Other Protection Equipment:</b>	Impervious apron, eyewash facility, emergency shower.

---

### Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Liquid
<b>Appearance:</b>	clear to slightly yellow
<b>Odor:</b>	mild odor
<b>pH:</b>	6.5-8.3 (10% Aqueous Solution)
<b>Viscosity:</b>	80 cps @ 25°C
<b>Melting or Freezing Point:</b>	58-60°C
<b>Boiling Point:</b>	200°F (93°C)
<b>Flash Point:</b>	41°C/107°F PMCC
<b>Decomposition Temperature:</b>	Not available
<b>Vapor Pressure (mmHg):</b>	Not available
<b>Vapor Density (Air = 1):</b>	>1.00
<b>Solubility in Water:</b>	Freely Soluble
<b>Percent Volatile @ 21°C (by volume):</b>	50% (w/w)
<b>Specific Gravity (water = 1):</b>	0.962 g/mL
<b>Evaporation rate (butyl acetate = 1):</b>	Estimated slower than ethyl ether.
<b>Molecular Formula:</b>	Not available
<b>Molecular Weight:</b>	Not available

---

### Section 10 – STABILITY AND REACTIVITY DATA

## MSDS - Material Safety Data Sheet

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Conditions to Avoid:** Keep away from incompatible materials, ignition sources, and excess heat.

**Incompatibilities with Other Materials:** This product is incompatible with – acids, azo, diazo, hydrazines, isocyanates, alkali and alkaline metals, nitrides, peroxides and hydroperoxides, epoxides, oxidizing agents, reducing agents, and water reactive substances.

**Hazardous Decomposition Products:** Oxides of nitrogen, carbon monoxide, carbon dioxide, hydrogen chloride, ammoniacal vapors

**Hazardous Polymerization:** Has not been reported.

---

### Section 11 – TOXICOLOGICAL INFORMATION

**RTECS#:**

**CAS# 68424-85-1:** UZ2995000

**CAS# 64-17-5:** KQ6300000

**CAS# 7732-18-5:** ZC0110000

**LD50/LC50:**

CAS # 68424-85-1:

Draize test, rabbit, skin:	25mg Severe:
Oral, mouse:	LD50 = 919mg/kg
Oral, rat:	LD50 = 426mg/kg

CAS# 64-17-5:

Draize test, rabbit, eye:	500mg Severe:
Draize test, rabbit, eye:	500mg/24H Mild;
Draize test, rabbit, skin:	20mg/24H Moderate;
Inhalation, mouse:	LC50 = 39gm/m <sup>3</sup> /4H;
Inhalation, rat:	LC50 = 20,000ppm/10H;
Oral, mouse:	LD50 = 3450mg/kg;
Oral, rabbit:	LD50 = 6300mg/kg;
Oral, rat:	LD50 = 7060mg/kg;
Oral, rat:	LD50 = 9000mg/kg

CAS# 7732-18-5:

Oral, rat:	LD50 = >90ml/kg
------------	-----------------

**Carcinogenicity:**

CAS# 68424-85-1: Not listed as a carcinogen by ACGIH, IARC, NTP or CA Prop.65.

CAS# 64-17-5: Not listed as a carcinogen by ACGIH, NTP or CA Prop.65. Listed as a Group 1 carcinogen by IARC.

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NTP or CA Prop.65.

**Epidemiology:**

Ethanol has been shown to produce fetotoxicity in the embryo or fetus of laboratory animals. Prenatal exposure to ethanol is associated with a distinct pattern of congenital malformations that have collectively been termed the "fetal alcohol syndrome".

**Teratogenicity:** No information found.

**Reproductive Effects:** No information found.

**Mutagenicity:** No information found.

**Neurotoxicity:** No information found.

**Other:** See actual entry in RTECS database for complete information.

---

### Section 12 – ECOLOGICAL INFORMATION

## MSDS - Material Safety Data Sheet

### Ecotoxicity

No data available for this product.

---

## Section 13 – DISPOSAL CONSIDERATIONS

### Disposal Instructions

This substance, when discarded or disposed of, is a characteristic hazardous waste according to Federal Regulations listed in 40 CFR Part 261. This material exhibits the characteristic of ignitability and is assigned the EPA Hazardous Waste Number D001. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. The discarding or disposal of this material must be done at a properly permitted facility in accordance with the regulations of 40 CFR 262, 263, 264 and 268. Additionally, the discarding or disposal of this material may be further regulated by state, regional or local regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Dispose of container and unused contents in accordance with federal, state and local requirements.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

---

## Section 14 – TRANSPORT INFORMATION

### DOT

**Proper Shipping Name:** CORROSIVE LIQUIDS, FLAMMABLE, N.O.S.

**Hazard Class:** 8

**UN Number:** UN2920

**Packing Group:** II

### Canadian TDG

No information available.

---

## Section 15 – REGULATORY INFORMATION

### US Federal

#### TSCA

CAS# 68424-85-1: Listed on the TSCA inventory.

CAS# 64-17-5: Listed on the TSCA inventory.

CAS# 7732-18-5: Listed on the TSCA inventory.

#### Health and Safety Reporting List

None of the chemicals in this product are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals in this product are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule (SNUR)

None of the chemicals in this product have a SNUR under TSCA.

#### CERCLA Hazardous Substances and Corresponding Reportable Quantities (RQs).

None of the chemicals in this product have an RQ.

#### SARA Section 302 Extremely hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Hazard Categories

CAS # 64-17-5: immediate, delayed, fire.

#### SARA Section 313

None of the chemicals in this product are reportable under Section 313.

#### Clean Air Act:

This product does not contain any hazardous air pollutants.

This product does not contain any Class 1 Ozone depletors.

This product does not contain any Class 2 Ozone depletors.

## MSDS - Material Safety Data Sheet

**Clean Water Act:**

None of the chemicals in this product are listed as Hazardous Substances under the CWA.  
 None of the chemicals in this product are listed as Priority Pollutants under the CWA.  
 None of the chemicals in this product are listed as Toxic Pollutants the CWA.

**OSHA:**

None of the chemicals in this product are listed on the Highly Hazardous List.  
 None of the chemicals in this product are listed on the Specifically Regulated Chemicals List.

**US State Regulations:**

CAS# 68424-85-1: is not present on state lists from CA, PA, MN, MA, FL or NJ.  
 CAS# 64-17-5: can be found on the following Right-to-Know lists: California, Massachusetts, Minnesota, New Jersey, and Pennsylvania.  
 CAS# 7732-18-5: is not present on state lists from CA, PA, MN, MA, FL or NJ.

**California Prop. 65**

WARNING: This product contains Ethyl alcohol, a chemical known to the state of California to cause developmental reproductive toxicity.

**California No Significant Risk Level**

None of the chemicals in this product are on this list.

**European/International Regulations**

**European Labeling in Accordance with EC Directives:**

Hazard Symbols: C  
 Risk Phrases: R10 – Flammable  
 R34 – Causes Burns  
 Safety Phrases: S9 – Keep container in a well-ventilated place.  
 S16 – Keep away from sources of ignition – No smoking.  
 S24/25 – Avoid contact with skin and eyes.  
 S33 – Take precautionary measures against static charges.

**United Kingdom Occupational Exposure Limits:**

Not available.

**United Kingdom Maximum Exposure Limits:**

Not available.

**WGK (Water Danger/Protection)**

CAS# 68424-85-1: 3  
 CAS# 64-17-5: 0.  
 CAS# 7732-18-5: No information available.

**Canada – DSL/NDSL**

CAS# 68424-85-1: is listed on Canada's DSL List.  
 CAS# 64-17-5: is listed on Canada's DSL List.  
 CAS# 7732-18-5: is listed on Canada's DSL List.

**Canada – WHMIS**

This product has a WHMIS classification of E, B3.  
 This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

CAS # 64-17-5 is listed on the Canadian Ingredient Disclosure List.

**Section 16 – OTHER INFORMATION**

**Additive Appearance of Solution**

Ammonium chloride	Clear
Anionic detergents	Turbid
Benzoic acid	Clear
Borax	Clear
Citric acid	Clear
Disodium phosphate	Turbid with ppt.
Ferrous chloride	Clear
Glycerol	Clear
Hydroxyacetic acid	Clear
Lead chloride	Turbid with ppt.
Magnesium chloride	Clear
Monosodium phosphate	Clear
Phosphoric acid	Clear
Potassium chloride	Clear
Soap	Turbid
Sodium acid pyrophosphate	Turbid with ppt.
Sodium aluminate	Turbid with ppt.
Sodium bicarbonate	Clear

## MSDS - Material Safety Data Sheet

Sodium carbonate	Slightly turbid
Sodium chloride	Clear
Sodium gluconate	Clear
Sodium metaborate	Clear
Sodium metasilicate	Turbid with ppt.
Sodium nitrite	Clear
Sodium sesquicarbonate	Slightly turbid
Sodium trimetaphosphate	Turbid with ppt.
Sodium tetraphosphate	Turbid
Sodium tripolyphosphate	Turbid with ppt.
Stannic chloride	Turbid with ppt.
Strontium chloride	Clear
Tetrapotassium pyrophosphate	Turbid with ppt.
Titanous chloride	Slightly turbid
Trisodium phosphate	Turbid with ppt.
Urea	Clear
Versene (EDTA)	Clear
Zinc chloride	Turbid
Zinc sulfate	Turbid

### Product Use:

Clear Bath® Algae Inhibitor is used to keep any circulating, temperature-controlled instrument clean. It contains a cationic surfactant as the active ingredient that inhibits algae growth. It is a clear to slightly yellow liquid with a mild odor. It congeals at low temperatures and becomes homogeneous at room temperatures. It may gel if exposed to temperatures below 40°F. It is incompatible with soap or any anionic wetting agent. The anionic agent antagonizes the effect of the cationic agent. Clear Bath® Algae Inhibitor should not be used or compounded with any reducing or oxidizing agents such as calcium hypochlorite, solid perchlorate, or nitric acid. These mixtures may be explosive.

**Chemical Name:** n-alkyl dimethyl benzyl ammonium chloride, a benzalkonium chloride (quaternary ammonium chloride)

**Synonyms:** Spectrum Clear Bath® Algae Inhibitor; Clear Bath®; Bath Clear; Ethanolic Benzalkonium chloride soln.

**Molecular Weight:** N/A

**Chemical Formula:**  $[C_nH_{2n+1}N(CH_3)_2CH_2C_6H_5]^+Cl^-$

**EPA Reg. #** 1839-32

**Catalog Nos.:** 105535, Clear Bath® Algae Inhibitor, 2 oz. (57.5 ml)  
105540, Clear Bath® Algae Inhibitor, 8 oz. (230 ml)

### Active Ingredients

Benzalkonium chloride; n-alkyl (50% C14, 40% C12, 10% C16) dimethyl benzyl ammonium chloride.

### Inert Ingredients

Water and ethyl alcohol.

### Solubility

Clear Bath® Algae Inhibitor is miscible in all proportions with water, lower alcohols and ketones. It is soluble in low molecular weight glycols; partially soluble (to 30%) in aromatic hydrocarbons. It can be coupled into aliphatic hydrocarbons by suitable solubilizing agent.

---

**MSDS Creation Date:** 3/11/2010

**Revision Information:** MSDS Section(s) changed since last revision of document include: N/A

### Disclaimer:

*The information above is believed to be accurate and represents the best information currently available to us. However, Spectrum Laboratories, Inc. make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Spectrum Laboratories, Inc. be liable for any claims, losses or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, however arising, even if Spectrum Laboratories has been advised of the possibility of such damages. Additionally, Spectrum Laboratories, Inc. assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed.*