Material Safety Data Sheet
Clear Bath®

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®

Synonyms: Spectrum Clear Bath®; Clear Bath®; Bath Clear; Ethanolic Benzalkonium Chloride Solution

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

Recommended Use:
Clear Bath® 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® 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.

Section 2 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Target Organs: Kidneys, Central nervous system, Liver

OSHA Hazards: Toxic by ingestion, Harmful by skin absorption., Corrosive

GHS Classification

<table>
<thead>
<tr>
<th>Health</th>
<th>Physical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity – Category 4 (oral)</td>
<td>Flammable liquid – Category 3</td>
</tr>
</tbody>
</table>

GHS Label elements, including precautionary statements:

Pictogram:

Signal word: Danger
Hazard Statement(s): Causes eye and skin burns. 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.

Precautionary Statement(s): Keep away from incompatible materials, ignition sources, and excess heat. Do not eat, drink, or use tobacco when using this product. Do not breathe mist/vapors. Keep container tightly closed. Use only in well-ventilated area. Use spark-proof tools and explosion-proof equipment. Do not reuse containers. Use spark-proof tools. Wash thoroughly after handling.

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

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.

Ingestion: 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.

Inhalation: 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.

Chronic Effects: 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 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

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

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

Section 4 – FIRST-AID MEASURES

Eye Contact: 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.
Skin Contact: Immediately flush skin with plenty of water for 15 minutes. Remove contaminated clothing. If irritation persists, get medical attention. Wash contaminated clothing before reuse.

Ingestion: 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.

Inhalation: 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 – FIREFIGHTING MEASURES

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

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.
Section 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION INFORMATION

**Respiratory Protection:** None required if good ventilation is maintained. Otherwise water suitable MSHA/NIOSH approved respirator where vapor concentrations are encountered.

**Protective Gloves:** Impervious

**Eye Protection:** Splash-proof safety goggles.

**Other Protection Equipment:** Impervious apron, eyewash facility, emergency shower.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

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

Section 10 – STABILITY AND REACTIVITY DATA

**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/m³/4H;
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.

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**Section 12 – ECOLOGICAL INFORMATION**

Ecotoxicity

No data available for this product.

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**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 depleters.
This product does not contain any Class 2 Ozone depleters.

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
MSDS - Material Safety Data Sheet

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

<table>
<thead>
<tr>
<th>Additive</th>
<th>Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium chloride</td>
<td>Clear</td>
</tr>
<tr>
<td>Anionic detergents</td>
<td>Turbid</td>
</tr>
<tr>
<td>Benzoic acid</td>
<td>Clear</td>
</tr>
<tr>
<td>Borax</td>
<td>Clear</td>
</tr>
<tr>
<td>Citric acid</td>
<td>Clear</td>
</tr>
<tr>
<td>Disodium phosphate</td>
<td>Turbid with ppt.</td>
</tr>
<tr>
<td>Ferrous chloride</td>
<td>Clear</td>
</tr>
<tr>
<td>Glycerol</td>
<td>Clear</td>
</tr>
<tr>
<td>Hydroxyacetic acid</td>
<td>Clear</td>
</tr>
<tr>
<td>Lead chloride</td>
<td>Turbid with ppt.</td>
</tr>
<tr>
<td>Magnesium chloride</td>
<td>Clear</td>
</tr>
<tr>
<td>Monosodium phosphate</td>
<td>Clear</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td>Clear</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>Clear</td>
</tr>
<tr>
<td>Soap</td>
<td>Turbid</td>
</tr>
<tr>
<td>Sodium acid pyrophosphate</td>
<td>Turbid with ppt.</td>
</tr>
<tr>
<td>Sodium aluminate</td>
<td>Turbid with ppt.</td>
</tr>
<tr>
<td>Sodium bicarbonate</td>
<td>Clear</td>
</tr>
<tr>
<td>Sodium carbonate</td>
<td>Slightly turbid</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Clear</td>
</tr>
<tr>
<td>Sodium gluconate</td>
<td>Clear</td>
</tr>
<tr>
<td>Sodium metaborate</td>
<td>Clear</td>
</tr>
<tr>
<td>Sodium metasilicate</td>
<td>Turbid with ppt.</td>
</tr>
<tr>
<td>Sodium nitrite</td>
<td>Clear</td>
</tr>
<tr>
<td>Sodium sesquicarbonate</td>
<td>Slightly turbid</td>
</tr>
<tr>
<td>Sodium trimetaphosphate</td>
<td>Turbid with ppt.</td>
</tr>
<tr>
<td>Sodium tetratetraphosphate</td>
<td>Turbid</td>
</tr>
<tr>
<td>Sodium tripolyphosphate</td>
<td>Turbid with ppt.</td>
</tr>
<tr>
<td>Stannic chloride</td>
<td>Turbid with ppt.</td>
</tr>
<tr>
<td>Strontium chloride</td>
<td>Clear</td>
</tr>
<tr>
<td>Tetrapotassium pyrophosphate</td>
<td>Turbid with ppt.</td>
</tr>
<tr>
<td>Titanous chloride</td>
<td>Slightly turbid</td>
</tr>
<tr>
<td>Trisodium phosphate</td>
<td>Turbid with ppt.</td>
</tr>
<tr>
<td>Urea</td>
<td>Clear</td>
</tr>
<tr>
<td>Versene (EDTA)</td>
<td>Clear</td>
</tr>
<tr>
<td>Zinc chloride</td>
<td>Turbid</td>
</tr>
<tr>
<td>Zinc sulfate</td>
<td>Turbid</td>
</tr>
</tbody>
</table>

Molecular Weight: N/A
Chemical Formula: \([\text{C}_n\text{H}_{2n+1}\text{N(CH}_3\text{)}_2\text{CH}_2\text{C}_6\text{H}_5]^+\text{Cl}^-\)

EPA Reg. # 1839-32

Catalog Nos.: 105535, Clear Bath®, 2 oz. (57.5 ml)
105540, Clear Bath®, 8 oz. (237 ml)

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

Inert Ingredients
Water and ethyl alcohol.

Solubility
Clear Bath® 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: Version 3
MSDS section(s) changed since last revision of document include: 1,2,3,9,16
MSDS last revision date: 5/31/2012

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