SAFETY DATA SHEET
Standard 10 Algaecide - 0500

Product Name: Standard 10 Algaecide
Date: 5/19/2015

SECTION 1 IDENTIFICATION

Supplier: Phoenix Products Company
55 Container Drive
Terryville, CT 06786
(860) 589-7502

Distributor: 55 Container Drive
Terryville, CT 06786
(860) 589-7502

U.S. PERS Emergency Telephone: 1-800-633-8253

Product Name: Standard 10 Algaecide

Synonyms: Benzalkonium chloride; N-Benzyl-N,N-dimethyltetradecan-1-aminium chloride

Chemical Name: Alkyl dimethyl benzyl ammonium chloride (C_{12-18})

Chemical Formula: C_{23}H_{42}ClN

CAS Number: 68391-01-5

Product Use: Pool Algaecide

SECTION 2 HAZARDS IDENTIFICATION

Emergency Overview

Danger
Corrosive

Hazard Statement(s)
H226: Flammable liquid.
H302: Harmful if swallowed
H312: Harmful in contact with skin
H318: Causes serious eye damage
H401: Toxic to aquatic life

Precautionary Statement(s)
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260: Do not get in eyes, on skin, or on clothing.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P264: Wash thoroughly with soap and water after handling.
P273: Avoid release to the environment.
P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P310: Immediately call a POISON CENTER/doctor
P362+364: Take off contaminated clothing and wash it before reuse.

Potential Health Effects
Skin: Causes corrosive burns. Brief exposures may cause irritation and defatting of the skin.

Eyes: Causes burns and may result in permanent injury to eyes including blindness.

Ingestion: Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Inhalation: Mists and vapors can irritate the throat and respiratory tract. High vapor concentrations may cause central nervous system effects. Symptoms may include headaches, dizziness, and drowsiness.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl dimethyl benzyl ammonium chloride (C_{12-18})</td>
<td>68391-01-5</td>
<td>9.96%</td>
</tr>
<tr>
<td>Diakyl methyl benzyl ammonium chloride (C_{12-18})</td>
<td>73049-75-9</td>
<td>0.04%</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>7732-18-5</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

SECTION 4 FIRST-AID MEASURES

Eyes: Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Seek medical attention at once.

Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Inhalation: If symptoms are experienced, move victim to fresh air. If person is not breathing, call 911 or an ambulance. Give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further advice.

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5 FIRE FIGHTING MEASURES

Flash Point: 120˚F (48.8˚C) - Pensky Martin Closed Cup
Upper & Lower Flame Limits: Not Determined

Extinguishing Media: Dry chemical, foam, carbon dioxide or water fog. Solid water streams may spread burning liquid.

Fire Fighting Equipment & Instructions: Firefighters should wear full protective clothing including self-contained breathing apparatus. Cool fire exposed containers with spray.

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

Unusual Fire Explosion Hazards: Explosive mixtures can form with air. Combustion products are toxic. Solvent vapors can travel to an ignition source and flash back.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill and Leak Procedures

Emergency Action: Isolate spill or leak area immediately. Keep unauthorized personnel away. Stay upwind. Keep out of low areas where vapors may accumulate. Eliminate all ignition sources (no smoking, flares, sparks or flames) in immediate area.

Spill Cleanup: Ventilate closed spaces before entering. All equipment used when handling the product must be grounded. Floor will be slippery. Do not touch or walk through spilled material. Stop leak if you can do it without risk. A vapor suppressing foam may be used to reduce vapors. Prevent entry into waterways, sewers, basements or confined areas. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material.
Large Spills: Dike far ahead of liquid spill for later disposal. Water spray may reduce vapor but will increase foaming. Water may not prevent ignition in closed spaces.

SECTION 7  HANDLING AND STORAGE

Handling Procedures: Avoid contact with skin and eyes. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Wash thoroughly after work using soap and water.

Storage Procedures: Keep the container tightly closed and in a cool, well-ventilated place. Keep from freezing. Do not handle or store near an open flame, heat or other sources of ignition. Prevent electrostatic charge buildup by using common bonding and grounding techniques.

SECTION 8  EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Controls: Use general ventilation. Local exhaust is suggested for use, where possible, in enclosed or confined spaces.

Personal Protective Equipment

Eyes/Face: Wear chemical goggles. Use a face shield if splashing is possible.

Skin: Use impervious gloves (rubber or neoprene). Wear suitable protective clothing.

Respiratory: If exposure limits are exceeded or if irritation is experienced, NIOSH approved respiratory protection should be worn. Ventilation and other forms of engineering controls are often the preferred means for controlling chemical exposures. Respiratory protection may be needed for non-routine or emergency situations.

General: Eye wash fountain and emergency showers are recommended.

The following ingredients have established exposure guidelines:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Exposure Guideline</th>
<th>Guideline Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol – 67-63-0</td>
<td>ACGIH TWA (2002) Intended change listed in 2002 booklet</td>
<td>400 ppm (TWA), 500 ppm (STEL) 200 ppm (TWA), 400 ppm (STEL)</td>
</tr>
<tr>
<td></td>
<td>NIOSH Pocket Guide</td>
<td>400 ppm (TWA), 500 ppm (STEL)</td>
</tr>
<tr>
<td></td>
<td>Alberta, British Columbia, Manitoba, New Brunswick, Ontario, Quebec, Yukon (Canada)</td>
<td>400 ppm (TWA), 500 ppm (STEL)</td>
</tr>
<tr>
<td></td>
<td>Saskatchewan (Canada)</td>
<td>983 mg/m³ (TWA), 1230 mg/m³ (STEL)</td>
</tr>
<tr>
<td></td>
<td>Mexico – Instruction No. 10</td>
<td>400 ppm (TWA), 500 ppm (STEL)</td>
</tr>
</tbody>
</table>

All TWAS are for an 8-hour period and all STELs are for 15 minutes unless specifically noted as being for another time period.

SECTION 9  PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless to straw colored liquid
Odor: Benzaldehyde (organic) odor
pH: 6-9 for 10% Aqueous Solution
Flash Point: 120°F (48.8°C) - Pensky Martin Closed Cup
Specific Gravity (H₂O=1): 0.95 (8 lbs/gal)
Percent Volatile (by wt.): 50% (weight %)
Vapor Pressure: 24 mmHg
VOC Content: Not determined
Vapor Density: Not determined
Viscosity: 75Cst cps @ 25°C
Evaporation Rate: Not determined.
### SECTION 10 STABILITY AND REACTIVITY

**Chemical Stability:** Material is stable.

**Conditions to Avoid:** Keep away from heat and strong oxidizing agents.

**Incompatibilities:** Strong oxidizing agents (may result in fire.), reducing agents.

**Hazardous Decomposition:** Upon decomposition, this product may yield oxides of nitrogen and ammonia, carbon dioxide, carbon monoxide and other low molecular weight hydrocarbons.

**Hazardous Polymerization:** Will not occur.

### SECTION 11 TOXICOLOGICAL INFORMATION

**Carcinogenicity:** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**Acute Oral LD50:** 760 mg/kg

**Acute Dermal:** > 1700 mg/kg.

**Primary Skin:** Corrosive

**Primary Eye:** Corrosive

**Carcinogenicity:** No ingredients listed are considered potential or known carcinogens.

### SECTION 12 ECOLOGICAL INFORMATION

**Ecotoxicity:** Very Toxic to aquatic organisms. Information available upon request. Please contact Mason Chemical Company Technical Service Department.

**Environmental Fate:** This product is biodegradable

### SECTION 13 DISPOSAL CONSIDERATIONS

**Disposal Instructions**

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. In addition, plastic containers may be disposed of by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinseate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.
SECTION 14  TRANSPORT INFORMATION

DOT:  UN Number: 2920
UN Proper Shipping Name: Corrosive Liquids, Flammable, N.O.S., (Quaternary Ammonium Compound, Isopropanol)
Transport Hazard Class: 8(3)
Packing Group: II

TDG:  UN Number: 2920
UN Proper Shipping Name: Corrosive Liquids, Flammable, N.O.S., (Quaternary Ammonium Compound, Isopropanol)
Transport Hazard Class: 8(3)
Packing Group: II

MEX:  UN Number: 2920
UN Proper Shipping Name: Corrosive Liquids, Flammable, N.O.S., (Quaternary Ammonium Compound, Isopropanol)
Transport Hazard Class: 8(3)
Packing Group: II

IATA:  UN Number: 2920
UN Proper Shipping Name: Corrosive Liquids, Flammable, N.O.S., (Quaternary Ammonium Compound, Isopropanol)
Transport Hazard Class: 8(3)
Packing Group: II

SECTION 15  REGULATORY INFORMATION

TSCA Status: This product is an EPA registered pesticide, and is therefore excluded from United States TSCA Regulations. EPA Reg. No. 10324-19

Other Chemical Inventories: All components of this product are listed on the following inventories: European Union, China. One or more ingredients not found on inventories of Australia, Canada (DSL), Japan and Korea, and Philippines.

CERCLA/SARA:
SARA Title III, Sections 311/312 – This act requires reporting under the Community Right-to-Know provisions due to the inclusion of the following components of this material in one or more of the five hazard categories listed in the 40 CFR 370:

Classification of this product: Immediate, Fire

SARA Title 313 – This requires submission of annual reports of releases of the following components of this material if the threshold reporting quantities, as listed in 40 CFR 372, are met or exceeded:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Maximum Concentration</th>
<th>Comment</th>
</tr>
</thead>
</table>

5
Isopropanol 67-63-0 10 Isopropanol listing only for strong acid process but no supplier notification required.

SECTION 15  REGULATORY INFORMATION - Continued

Reportable Quantities/Threshold Planning Quantities: CERCLA requires notification of the National Response Center (Telephone 1-800-424-8802) in the event of a release of quantities of the following hazardous materials contained in this product, if the release is equal to or greater than the Reportable Quantities (RQs) SARA 302/304 requires emergency planning, including agency notification, for possible release of the following components of this material, based upon the Threshold Planning Quantities (TPQs) and/or release of Reportable Quantities.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Reportable Quantity (RQ)</th>
<th>Threshold Planning Quantity (TPQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Ingredients listed in this section.</td>
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<td></td>
</tr>
</tbody>
</table>

State & Provincial Right to Know & Selected Regulatory Lists: The following ingredients appear on various state right to know lists and/or California’s Proposition 65 List:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>State List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl Chloride (trace &lt; 10 ppm)</td>
<td>AZ, CA, CAP65C, CT, FL, ID, MA, MN, NJ, PA, RI</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>AZ, CA, CT, FL, ID, MA, MN, NJ, PA, RI</td>
</tr>
<tr>
<td>AZ – Arizona Ambient Air Quality Guidelines</td>
<td>IL – Illinois Toxic Air Contaminant – Carcinogenic</td>
</tr>
<tr>
<td>CT – Connecticut Hazardous Air Pollutants</td>
<td>MA – Massachusetts Right to Know List</td>
</tr>
<tr>
<td>CA – California Director’s List of Hazardous Substances</td>
<td>MN – Minnesota Hazardous Substances List</td>
</tr>
<tr>
<td>CAP65C – California Prop 65 Carcinogen</td>
<td>NJ – New Jersey Right to Know List</td>
</tr>
<tr>
<td>FL – Florida Substances List</td>
<td>PA – Pennsylvania Right to Know List</td>
</tr>
<tr>
<td>ID – Idaho Non-carcinogen Toxic Air Pollutants</td>
<td>RI – Rhode Island Hazardous Substances List</td>
</tr>
</tbody>
</table>

WHMIS Classification: B3, D2B, E. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

SECTION 16  OTHER INFORMATION

Hazard Ratings  HMIS (III)  NFPA

| Health | 3 | 3 |
| Flammability | 2 | 2 |
| Reactivity | 0 | 0 |
| PPE | C |

No representations or warranties, either expressed or implied, of merchant ability, fitness for a particular purpose or any other nature are made hereunder with respect to information or the product to which the information refers.

Date: 5/19/2015
Phoenix Products Company