

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION 1

Product Name: Aquamate 5% Algaecide
Product ID: 5805
Synonymes: 5% BTC 776, Algaecide
Recommended Use: Swimming Pool Algaecide
Revision Date : 11-04-2015
Manufacturer: Stepan Company
22 West Frontage Road
Northfield, IL 60093
(847) 446-7500
Emergency Phone Number: CHEMTREC 1-800-424-9300
Packaged By: Baleco Int'l Inc.
3200 State Line Rd
North Bend, OH 45052
(513) 353-3000

SECTION 2 HAZARDS IDENTIFICATION 2

Physical Hazards: Flammable Liquids Category 3
Health Hazards: Acute toxicity, oral Category 3
Acute toxicity, inhalation Category 2
Skin corrosion/irritation Category 1
Serious eye damage/eye irritation Category 1
Specific target organ toxicity, single exposure Category 2
Environmental Hazards: Hazardous to the aquatic environment, acute hazard Category 1
Hazardous to the environment, long term hazard Category 1
OSHA Defined Hazards: Not classified
Label Elements:



Signal Word: Danger

Hazard Statement: Flammable liquid and vapor. Toxic if swallowed. Causes severe skin burns and eye damage. Cause serious eye damage. Fatal if inhaled. May cause damage to organs. Very toxic to aquatic life with long lasting effects.

Prevention: Keep container tightly closed. Keep away from heat/sparks/open flames/hot surfaces. NO smoking. Use only outdoors or in a well-ventilated area. Ground/bond container and receiving equipment. Use explosion proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection. Wear respiratory protection.

Response: Collect spillage. If swallowed: Immediately call a poison center/doctor. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Specific treatment is urgent (see this label). Wash contaminated clothing before reuse. In case of fire: Use appropriate media to extinguish.

Storage: Store in a well-ventilated place. Keep container tightly closed. Keep cool. Keep locked up.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazards Not Otherwise Classified (HNOC): None known.
Supplemental Information: None

3. COMPOSITION / INFORMATION ON INGREDIENTS 3

Mixtures

Chemical Name	CAS Number	Percent
Alkyl dimethyl benzyl ammonium chloride (C12-18)	68391-01-5	4.9 – 5.0%
Water	7732-18-5	94.5 – 95.0%
Ethanol	64-17-5	.95 – .105%
Dialkyl (C12-18) methylbenzylammonium chloride	73049-75-9	.02

4. FIRST AID MEASURES 4

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.

Skin Contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion: Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting.

Most Important Symptoms/Effects, Acute and Delayed: Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Indication of Immediate Medical Attention and Special Treatment Needed: If the product is ingested, probable mucosal damage may contraindicate the use of gastric lavage. Treat the affected person appropriately.

General Information: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES 5

Suitable Extinguishing Media: Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable Extinguishing Media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific Hazards Arising From the Chemical: Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

Special Protective Equipment and Precautions for Firefighters: Firefighters should wear full protective clothing including self-contained breathing apparatus.

Fire-Fighting Equipment/Instructions: In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific Methods: Use standard firefighting procedures and consider the hazards of other involved materials.

General Fire Hazards: Flammable liquid and vapor.

Personal Precautions, Protective Equipment and Emergency Procedures: Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not breathe vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and Materials for Containment and Cleaning Up: Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Do not discharge effluent containing this product into lakes, streams, ponds, 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.

Environmental Precautions: Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

Precautions for Safe Handling: Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe vapor. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Avoid prolonged exposure. Do not get this material on clothing. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.

Conditions for Safe Storage, Including any Incompatibilities: DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL. PESTICIDE STORAGE: Store in a dry place no lower in temperature than 50°F or higher than 120°F. Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers.

Occupational Exposure Limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Ethanol (CAS 64-17-5)	PEL	1900 mg/m ³ 1000 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
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Ethanol (CAS 64-17-5)

STEL

1000 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Ethanol (CAS 64-17-5)	TWA	1900 mg/m3 1000 ppm

Biological Limit Values: No biological exposure limits noted for the ingredient(s).

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Eye wash facilities and emergency shower must be available when handling this product.

Individual Protection Measures, Such As Personal Protective Equipment

Eye/face Protection: Wear safety glasses with side shields (or goggles) and a face shield.

Hand Protection: Wear appropriate chemical resistant gloves.

Skin Protection Other: Wear appropriate chemical resistant clothing.

Skin Protection: Wear protective gloves.

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal Hazards: Wear appropriate thermal protective clothing, when necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES 9

Appearance:

Physical State:	Liquid.
Form:	Not available.
Color:	Not available.
Odor:	Not available.
Odor Threshold:	Not available.
pH:	6.5000 – 8.50000 (10% in H ₂ O).
Melting Point/Freezing Point:	Not available.
Initial Boiling Point & Boiling Range:	Not available.
Flash Point:	102°F (38.9° C) PMCC
Evaporation Rate:	Estimated slower than ethyl ether
Flammability (solid, gas):	Not available.
Upper/Lower Flammability or Explosion Limits:	
Explosive limit – Lower (%):	Not available.
Explosion Limit – Upper (%):	Not available.
Vapor Pressure:	Not determined or unknown.
Vapor Density:	Estimated heavier than air
Relative Density:	Not available.
Solubility(ies):	
Solubility (water):	Not available.
Auto-Ignition Temperature:	Not available.
Decomposition Temperature:	Not available.
Viscosity:	50cps @ 25°C
Other Information:	
Density:	8 lb/gal @ 25C

10. STABILITY AND REACTIVITY 10

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical Stability: Material is stable under normal conditions.

Possibility of Hazardous Reactions: No dangerous reaction known under conditions of normal use.

Conditions to Avoid: Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible Materials: Strong oxidizing agents. Anionic surfactants

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

General Hygiene Considerations: When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

11. TOXICOLOGICAL INFORMATION 11

Information on Likely Routes of Exposure

Ingestion: Toxic if swallowed. Causes digestive tract burns.

Inhalation: Not likely, due to the form of the product.

Skin Contact: Causes severe skin burns.

Eye Contact: Causes serious eye damage.

Symptoms Related to the Physical, Chemical and Toxicological Characteristics: Burning pain and severe corrosive skin damage. Causes serious eye damage.

Information on toxicological effects

Acute Toxicity: Fatal if inhaled. Toxic if swallowed.

Information for Product BTC776

Test	Species	Test Result
Acute Dermal LD50	Rabbit	>2000 mg/kg
Inhalation LC50		0.054 – 0.51 mg/l
Oral LD50	Rat	50 – 500 mg/kg

Skin Corrosion/Irritation: Causes severe skin burns and eye damage.

Serious Eye Damage/Eye Irritation: Causes serious eye damage.

Respiratory or Skin Sensitization

Respiratory Sensitization: Not available.

Skin Sensitization: This product is not expected to cause skin sensitization.

Germ Cell Mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

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

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.

Reproductive Toxicity: This product is not expected to cause reproductive or developmental effects.

Specific Target Organ Toxicity - Single Exposure: May cause damage to organs.

Specific Target Organ Toxicity - Repeated Exposure: Not applicable.

Aspiration Hazard: Not applicable.

12. ECOLOGICAL INFORMATION 12

Ecotoxicity: Very toxic to aquatic life with long lasting effects.

Product	Species	Test Results
BTC776		
Acute		
Algae EC50	Algae	0.126 ppm, 95 hours
Crustacea LC50	Daphnia	0.0116 – 0.032 ppm, 48 hours
Fish LC50	Fish	0.056 ppm, 96 hours

Persistence and Degradability: Readily biodegradable.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other Adverse Effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Disposal Instructions

PESTICIDE DISPOSAL - Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate 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.

CONTAINER DISPOSAL - Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse empty container with water. Then offer for recycling or reconditioning. If not available, puncture and dispose of in a sanitary landfill.

Hazardous Waste Code: The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from Residues / Unused Products: Not available.

Contaminated Packaging: Not available.

DOT

UN Number: UN2924

UN proper Shipping Name: Flammable Liquid, Corrosive, N.O.S. (Ethanol, Quaternary Ammonium Chloride)

Transport Hazard Class(es)

Class: 3

Subsidiary Risk: 8

Packing Group: III

Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.

Note: Material may qualify for limited quantity exemption under DOT rules.

IATA

UN Number: UN2924

UN Proper Shipping Name: Flammable Liquid, Corrosive, N.O.S. (Ethanol, Quaternary Ammonium Chloride)

Transport Hazard Class(es)

Class: 3

Subsidiary Risk: 8

Packing Group: III

Environmental Hazards: Yes

Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN Number: UN2924

UN Proper Shipping Name: Flammable Liquid, Corrosive, N.O.S. (Ethanol, Quaternary Ammonium Chloride)

Transport Hazard Class(es)

Class: 3

Subsidiary Risk: 8

Packing Group: III

Environmental Hazards

Marine Pollutant: Yes

EmS: F-E, S-C

Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC code: Not available.

US Federal Regulations: This product is a U.S. EPA registered pesticide.
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

CERCLA Hazardous Substance List (40 CFR 302.4): Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes

Delayed Hazard - No

Fire Hazard - Yes

Pressure Hazard - No

Reactivity Hazard - No

SARA 302 Extremely Hazardous Substance: No

SARA 311/312 Hazardous Chemical: Yes

SARA 313 (TRI reporting): Not regulated.

Other Federal Regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated.

Safe Drinking Water Act (SDWA): Not regulated.

FIFRA Information: This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal Word: DANGER

Hazard Statement: Corrosive. Causes irreversible eye damage and skin burns. May be fatal if swallowed or absorbed through skin. This product is toxic to fish, aquatic invertebrates, oysters, and shrimp.

US state regulations

US - Pennsylvania RTK - Hazardous Substances: Listed substance: Ethanol (CAS 64-17-5)

US. Massachusetts RTK - Substance List: Ethanol (CAS 64-17-5)

US. Rhode Island RTK: Not regulated.

US. California Proposition 65: California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory Name	On Inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

NFPA Rating:



The information provided in this material 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 related 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 text. This information should be available to all who will use, handles, store, transport, or otherwise be exposed to this product. This Information has been prepared for the guidance of plant engineering, operations and management and for persons working with or handling this product. Baleco believes this information to be reliable and up to date as of the date of publication, but makes no warranty that it is. Additionally, if this safety data sheet is more than three years old, you should contact Baleco at the phone number listed in section 1 to verify the safety data sheet is current.

This SDS is prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, Baleco Int'l Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its safety and suitability for their purposes prior to use. In no event will Baleco Int'l Inc. be responsible for damages of any nature whatsoever resulting from the use or reliance upon information.

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Reason(s) for Revision:

3 year review

Updates to all sections to bring into compliance.

Prepared By: MSDS/SDS Department in conjunction with Stepan Company SDS information.

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End of Safety Data Sheet