



FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL: 1-800-654-6911 (OUTSIDE USA: 1-423-780-2970)
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®: 1-800-424-9300 (OUTSIDE USA: 1-703-527-3887)
FOR ALL SDS QUESTIONS & REQUESTS, CALL: 1-800-511-MSDS (OUTSIDE USA: 1-423-780-2347)

PRODUCT NAME: HTH SUPER ALGAE GUARD 60
EPA Registration Number: 1258-1287

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Arch Chemicals, Inc. 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004	REVISION DATE:	05/27/2015
	SUPERCEDES:	11/04/2009
	MSDS Number:	000000023186
	SYNONYMS:	None
	CHEMICAL FAMILY:	Quaternary ammonium chloride
DESCRIPTION / USE	algacide	
FORMULA:	NOT APPLICABLE/MIXTURE	

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 4
Acute toxicity (Dermal) : Category 4
Skin corrosion : Category 1B
Serious eye damage : Category 1
Specific target organ toxicity - single exposure : Category 3

GHS Label element

Hazard pictograms :  

Signal word : Danger

Hazard statements : H302 Harmful if swallowed.
H312 Harmful in contact with skin.



H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

Precautionary statements

- Prevention:**
P260 Do not breathe vapours.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- Response:**
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310 Immediately call a POISON CENTER or doctor/ physician.
P321 Specific treatment (see supplemental first aid instructions on this label).
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P362 + P364 Take off contaminated clothing and wash it before reuse.
- Storage:**
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
- Disposal:**
P501 Dispose of contents/container in accordance with local regulation.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-18-ALKY	68391-01-5	28 - 32
Alkyl dimethyl ethylbenzyl ammonium chloride (12-	68956-79-6	28 - 32
Ethanol	64-17-5	6 - 7



Amines C12-18 alkyldimethyl	68391-04-8	0.8 - 1.3
Water	7732-18-5	28 - 32

SECTION 4. FIRST AID MEASURES

General Advice:	Call a poison control center or doctor for treatment advice. For 24-hour emergency medical assistance, call Arch Chemical Emergency Action Network at 1-800-654-6911. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
Inhalation:	IF INHALED: Move person 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 control center or doctor for further treatment advice.
Skin Contact:	IF ON 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.
Eye Contact:	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Ingestion:	IF SWALLOWED: 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.

SECTION 5. FIREFIGHTING MEASURES

Flammability Summary (OSHA): Combustible above 93 deg. C / 200 deg. F.

Flammable Properties

Flash Point:	> 200 °F
Autoignition Temperature:	No data
Fire / Explosion Hazards:	Material may be ignited if preheated to temperatures above the flash point in the presence of a source of ignition.
Extinguishing Media:	Use dry chemical, water fog, carbon dioxide (CO ₂), or foam.
Fire Fighting Instructions:	In case of fire, use normal fire-fighting equipment and the personal protective equipment recommended in Section 8 to include a NIOSH approved self-contained breathing apparatus. Use water to cool containers.
Hazardous Combustion Products:	Carbon monoxide, Carbon dioxide
Upper Flammable / Explosive Limit, % in air:	Not applicable
Lower Flammable / Explosive Limit, % in air:	Not applicable



SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations: Additional protective clothing must be worn to prevent personal contact with this material. Those items include but are not limited to boots, impervious gloves, hard hat, splash-proof goggles, impervious clothing, i.e., chemically impermeable suit, self-contained breathing apparatus.

Spill Mitigation Procedures

Air Release: Hazardous concentrations in air may be found in local spill area and immediately downwind. Contain all liquids for treatment or disposal.

Water Release: This material is soluble in water. Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so.

Land Release: Create a dike or trench to contain materials. Absorb spill with inert material (e.g., dry sand, clay, earth or commercial absorbent), then place in a chemical waste container. Decontaminate all clothing and the spill area using a detergent and flush with large amounts of water. Contain all liquids for treatment or disposal.

Additional Spill Information : Remove all sources of ignition. Stop source of spill as soon as possible and notify appropriate personnel. Utilize emergency response personal protection equipment prior to the start of any response. Evacuate all non-essential personnel. Dispose of spill residues per guidelines under Section 13, Disposal Consideration.

SECTION 7. HANDLING AND STORAGE

Handling: Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Avoid breathing mist or vapor.

Storage: Store in a cool dry ventilated location, away from sources of ignition or other incompatible conditions and chemicals. Keep container(s) closed. Keep from freezing.

Incompatible Materials for Storage: Refer to Section 10, "Incompatible Materials."

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: Local exhaust ventilation is recommended if vapors, mists or aerosols are generated. Otherwise, use general exhaust ventilation.

Protective Equipment for Routine Use of Product



Respiratory Protection : Respiratory protection not normally needed. If vapors, mists or aerosols are generated, wear a NIOSH approved respirator. A NIOSH approved air purifying respirator with organic vapor cartridge and N95 particulate filter. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit.

Skin Protection : Wear impervious gloves, boots and apron to avoid skin contact. A full impervious suit is recommended if exposure is possible to a large portion of the body.

Eye Protection: Use chemical goggles and a faceshield.

Protective Clothing Type: Impervious

General Protective Measures: An eye wash and safety shower should be provided in the immediate work area.

Components with workplace control parameters

Components (CAS-No.)	Value	Control parameters	Basis (Update)
Ethanol (64-17-5)	STEL	1,000 ppm	ACGIH (02 2014)

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: liquid
 Form: Hazy
 Color: Blue
 Odor: Mild - quaternary ammonium chloride odor
 Molecular Weight: Not applicable/Mixture
 pH : Approximately 7.5 10% solution
 Boiling Point: No data.

Melting point/freezing point: No data
 Density: No data

Vapor Pressure: No data (@ 25 Deg. C)
 Vapor Density: No data
 Viscosity: No data
 Fat Solubility: No data
 Solubility in Water: soluble
 Partition coefficient n-octanol/water: No data

Evaporation Rate:
 Oxidizing: None established
 Volatiles, % by vol.: 35.000 - 40.000%
 VOC Content: No data
 HAP Content: No data

SECTION 10. STABILITY AND REACTIVITY



Stability and Reactivity Summary: Stable under normal conditions. Not sensitive to mechanical shock. Not sensitive to static discharge. Product will not undergo hazardous polymerization.

Conditions to Avoid: Sparks, open flame, other ignition sources, and elevated temperatures., Contact with incompatible substances

Chemical Incompatibility: oxidizers

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, ammonium compounds, Oxides of nitrogen

Decomposition Temperature: No data

SECTION 11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

Oral LD50 value:

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-18-ALKY Alkyl dimethyl ethylbenzyl ammonium chloride (12- Ethanol	No data No data LD50 = 7,060 mg/kg Rat
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Component Animal Toxicology

Dermal LD50 value:

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-18-ALKY Alkyl dimethyl ethylbenzyl ammonium chloride (12- Ethanol	No data No data LD50 Believed to be > 2,000 mg/kg Rabbit
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Component Animal Toxicology

Inhalation LC50 value:

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-18-ALKY Alkyl dimethyl ethylbenzyl ammonium chloride (12- Ethanol	No data No data Inhalation LC50 10 h = 20000 ppm Rat
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Product Animal Toxicity

Oral LD50 value: LD50 Believed to be > 500 but < 5,000 mg/kg. Rat
Dermal LD50 value: LD50 Believed to be approximately 2,000 mg/kg Rabbit
Inhalation LC50 value: No data
Skin Irritation: Expected to be corrosive.
Eye Irritation: Corrosive to eyes.
Skin Sensitization: Negative skin sensitizer, guinea pig - Buehler Method

Acute Toxicity: This product is corrosive to all tissues contacted and upon inhalation, may cause irritation to mucous membranes and respiratory tract.

Subchronic / Chronic Toxicity: There are no known or reported effects from repeated exposure except those secondary to burns.

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-18-ALKY This product has been tested for Subchronic toxicity in laboratory animals and no systemic toxicity or target organ effects occurred in the test animals.

Ethanol Prolonged or repeated ingestion may cause liver damage.

Reproductive and Developmental Toxicity: Not known or reported to cause reproductive or developmental toxicity.

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-18-ALKY At high doses, maternal toxicity was observed. However, no developmental effects were observed.

Ethanol This chemical has been tested in laboratory animals and developmental and/or teratogenic effects were seen following ingestion.

Mutagenicity: Not known or reported to be mutagenic.

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-18-ALKY This chemical has been tested and was shown to be non-mutagenic.

Ethanol This product has been tested for mutagenicity. Tests revealed both positive and negative results. Based on the weight of evidence, we judge this product NOT to be a mutagenic hazard.

Carcinogenicity: This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-18-ALKY The carcinogenicity has been evaluated through animal study and it was found not to be carcinogenic.

Ethanol The International Agency for Research on Cancer (IARC) has classified this product or a component of this product as a Group 3 substance, Unclassifiable as to Its Carcinogenicity to Humans. The FDA determined that this product is not carcinogenic in laboratory animals.



SECTION 12. ECOLOGICAL INFORMATION

Overview: No data for product. Individual constituents are as follows:

Ecological Toxicity Values for: QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-18-ALKY

Bluegill sunfish	- (static). 96 h LC50 = 0.52 mg/l
Rainbow trout (<i>Salmo gairdneri</i>),	- (static). 96 h LC50 = 0.93 mg/l
Sheepshead minnow	- (static). 96 h LC50 = 0.86 mg/l
Daphnia magna,	- (static). 48 h EC50= 0.058 mg/l
Mysid shrimp	- (static). 96 h LC50= 0.092 mg/l

Ecological Toxicity Values for: Ethanol

Pimephales promelas (fathead minnow)	- (nominal, static). 96 h LC50 = 14,700 mg/l
Rainbow trout (<i>Salmo gairdneri</i>),	- (nominal, static). 96 h LC50 = 13,000 mg/l
Brine shrimp	- (nominal, static). 48 h LC50= 25.5 mg/l
Daphnia pulex	- (nominal, static). 18 h LC50= 12,100 mg/l
Daphnia magna,	- (nominal, static). 48 h EC50> 10,000 mg/l
Daphnia magna,	- (nominal, static). 48 h LC50= 9,248 mg/l
Ceriodaphnia dubia	- (nominal, static). 48 h LC50= 8,808 mg/l

SECTION 13. DISPOSAL CONSIDERATIONS

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THE MATERIAL. THE USER OF THE MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

Waste Disposal Summary : If this product becomes a waste, it will be a nonhazardous waste according to U.S. RCRA regulations. Dispose of in accordance with all Local, State, Federal, and Provincial Environmental Regulations.

Disposal Methods : As a nonhazardous waste, it should be disposed of in accordance with local, state and federal regulations.

Potential US EPA Waste Codes : Not applicable



SECTION 14. TRANSPORT INFORMATION

DOT

UN number : 1903
Description of the goods : Disinfectants, liquid, corrosive n.o.s.
: (Quaternary ammonium compounds, C12-18-alkyl[(ethylphenyl)methyl]dimethyl, chlorides)
Class : 8
Packing group : II
Labels : 8
Emergency Response : 153
Guidebook Number

TDG

UN number : 1903
Description of the goods : DISINFECTANT, LIQUID, CORROSIVE, N.O.S.
: (Quaternary ammonium compounds, C12-18-alkyl[(ethylphenyl)methyl]dimethyl, chlorides)
Class : 8
Packing group : II
Labels : 8

IATA

UN number : 1903
Description of the goods : Disinfectant, liquid, corrosive, n.o.s.
: (Quaternary ammonium compounds, C12-18-alkyl[(ethylphenyl)methyl]dimethyl, chlorides)
Class : 8
Packing group : II
Labels : 8
Packing instruction (cargo aircraft) : 855
Packing instruction (passenger aircraft) : 851
Packing instruction (passenger aircraft) : Y840

IMDG-CODE

UN number : 1903
Description of the goods : DISINFECTANT, LIQUID, CORROSIVE, N.O.S.
: (Quaternary ammonium compounds, C12-18-alkyl[(ethylphenyl)methyl]dimethyl, chlorides)
Class : 8
Packing group : II
Labels : 8
EmS Number 1 : F-A
EmS Number 2 : S-B
Marine pollutant : yes



SECTION 15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals.

Signal word : DANGER!
Hazard statements : Harmful if swallowed.
Harmful if absorbed through skin.
Causes skin irritation.
Corrosive. Causes irreversible eye damage.
This pesticide is toxic to fish.

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Massachusetts Right To Know

Ethanol 64-17-5

Pennsylvania Right To Know

n-alkyldimethylbenzylammonium chloride 68391-01-5

Quaternary ammonium compounds, C12-18-

alkyl[(ethylphenyl)methyl]dimethyl, chlorides

Ethanol 64-17-5

New Jersey Right To Know

n-alkyldimethylbenzylammonium chloride 68391-01-5

Quaternary ammonium compounds, C12-18-

alkyl[(ethylphenyl)methyl]dimethyl, chlorides

Ethanol 64-17-5



Amines, C12-18-
alkyldimethyl

68391-04-8

California Prop 65

WARNING! This product contains a chemical known to the State of California to cause cancer.

Ethanol

64-17-5

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Ethanol

64-17-5

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

TSCA : This is an EPA registered pesticide.

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

SECTIONS REVISED: 1
Major References : Available upon request.

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, 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. ARCH CHEMICALS 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 MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT ARCH CHEMICALS MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT. .