



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: BAQUACIL Algicide
EPA Registration Number: 1258-1264

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

| | | |
|---|-------------------|------------------|
| Arch Chemicals, Inc. 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004 | REVISION DATE: | 05/26/2015 |
| | SUPERCEDES: | 02/11/2009 |
| | MSDS Number: | 000000022453 |
| | SYNONYMS: | None |
| | CHEMICAL FAMILY: | Mixture |
| | DESCRIPTION / USE | algicide |
| | FORMULA: | None established |

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

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

GHS Label element

Hazard pictograms :   

Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.
H302 Harmful if swallowed.



H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

Precautionary statements

: **Prevention:**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin 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 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.

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 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

P305 + P351 + P338 + P310 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 or doctor/ physician.

P312 Call a POISON CENTER or doctor/ physician if you feel unwell.

P363 Wash contaminated clothing before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

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 | 49.80 |
| ISOPROPYL ALCOHOL | 67-63-0 | 10.00 |
| Water | 7732-18-5 | 40.00 |

SECTION 4. FIRST AID MEASURES

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|---------------------|--|
| 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. |
| Notes to Physician: | Probable mucosal damage may contraindicate the use of gastric lavage. |

SECTION 5. FIREFIGHTING MEASURES

Flammability Summary (OSHA): Combustible.

Flammable Properties

Flash Point: 113 °F Pensky-Martens closed cup
Autoignition Temperature: No data



| | |
|--|---|
| Fire / Explosion Hazards: | Vapors may be ignited by sparks, flames or other sources of ignition if material is above the flash point giving rise to a flash fire. Vapors are heavier than air and may travel to a source of ignition and flash back. |
| Extinguishing Media: | Dry chemical Foam Carbon dioxide Water fog |
| 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: | During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. |
| Upper Flammable / Explosive Limit, % in air: | No data |
| Lower Flammable / Explosive Limit, % in air: | No data |

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. |
| <u>Spill Mitigation Procedures</u> | |
| Air Release: | Hazardous concentrations in air may be found in local spill area and immediately downwind. Vapors may be suppressed by the use of water fog. Contain all liquid for treatment and/or disposal as a (potential) hazardous waste. |
| 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. Contain all liquid for treatment and/or disposal as a (potential) hazardous waste. |
| 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. Avoid runoff into storm sewers and ditches which lead to waterways. Contain all liquid for treatment and/or disposal as a (potential) hazardous waste. |
| 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. Ground and bond containers when transferring material.

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. Keep away from food and drinking water.

Incompatible Materials for Storage: Do not allow product to come in contact with other materials, including e.g. other pool treatment products, acids, organic materials, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, all corrosive liquids, flammable or combustible materials, etc.

Do Not Store At temperatures Above: 60 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: Local exhaust ventilation is recommended if vapors, mists, aerosols or dusts 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) |
|-----------------------------|-------|--------------------|-----------------|
| ISOPROPYL ALCOHOL (67-63-0) | TWA | 200 ppm | ACGIH (02 2014) |
| | STEL | 400 ppm | ACGIH (02 2014) |



SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|------------------------|
| Physical State: | liquid |
| Form | liquid |
| Color: | blue |
| Odor: | Benzaldehyde-like |
| Molecular Weight: | Not Applicable/Mixture |
| pH : | 6.5 - 8.3 at 10 g/l |
| Boiling Point: | 214.00 °F (101.11 °C) |
| Freezing Point: | No data. |
| Density: | No data. |
| Vapor Pressure: | 44.00000000 mmHg20 °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: | No data |
| Oxidizing: | None established |
| Volatiles, % by vol.: | 50.000% |
| VOC Content | 10.00 wt%/wt |
| HAP Content | |

SECTION 10. STABILITY AND REACTIVITY

| | |
|-----------------------------------|---|
| Stability and Reactivity Summary: | Stable under normal conditions. Product is sensitive to electrical static discharge. Product will not undergo hazardous polymerization. |
| Conditions to Avoid: | Sparks, open flame, other ignition sources, and elevated temperatures. |
| Chemical Incompatibility: | Strong oxidizing agents, Reducing agents |
| Hazardous Decomposition Products: | Carbon monoxide, Carbon dioxide, Oxides of nitrogen, Hydrogen chloride, Amines |
| Decomposition Temperature: | No data |

SECTION 11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

Oral LD50 value:

| | |
|--|------------------------|
| QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-18-ALKY ISOPROPYL ALCOHOL | No data |
| | LD50 = 5,045 mg/kg Rat |



Component Animal Toxicology

Dermal LD50 value:

QUATERNARY AMMONIUM COMPOUNDS,
BENZYL-C12-18-ALKYL ISOPROPYL ALCOHOL

No data

LD50 = 13,000 mg/kg Rabbit

Component Animal Toxicology

Inhalation LC50 value:

QUATERNARY AMMONIUM COMPOUNDS,
BENZYL-C12-18-ALKYL ISOPROPYL ALCOHOL

No data

Inhalation LC50 8 h = 16000 ppm Rat

Product Animal Toxicity

Oral LD50 value: LD50 = 515 mg/kg Rat
Dermal LD50 value: LD50 > 2,000 mg/kg Rabbit
Inhalation LC50 value: No data

Skin Irritation: Expected to be corrosive.
Eye Irritation: Corrosive to eyes.
Skin Sensitization: None known or reported.

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-ALKYL

This product has been tested for Subchronic toxicity in laboratory animals and no systemic toxicity or target organ effects occurred in the test animals.

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

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-18-ALKYL

At high doses, maternal toxicity was observed. However, no developmental effects were observed.

ISOPROPYL ALCOHOL

This material at concentrations above the occupational exposure limits has caused developmental effects in animals. However, these effects were observed only at those doses that resulted in maternal toxicity.

Mutagenicity: Not known or reported to be mutagenic.



QUATERNARY AMMONIUM
COMPOUNDS, BENZYL-C12-18-
ALKY
ISOPROPYL ALCOHOL

This chemical has been tested and was shown to be non-mutagenic.

This material has been shown not to be mutagenic based on a battery of assays.

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
ISOPROPYL ALCOHOL

The carcinogenicity has been evaluated through animal study and it was found not to be carcinogenic.

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.

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: ISOPROPYL ALCOHOL

| | |
|--|--|
| Bluegill | - (nominal, static). 96 h LC50 > 1,400 mg/l |
| Pimephales promelas (fathead minnow) | - (measured, flow-through) 96 h LC50 10,400 mg/l |
| Mosquito fish | - (nominal, static). 96 h LC50 > 1,400 mg/l |
| Daphnia magna, | - (nominal, static). 24 h EC50 9,714 mg/l |
| Common shrimp (<i>Crangon crangon</i>) | - (nominal, renewal). 48 h LC50 1,400 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 meets the criteria of a hazardous waste as defined under 40 CFR 261 and would have the following EPA hazardous waste number: D001.

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

Potential US EPA Waste Codes : D001

SECTION 14. TRANSPORT INFORMATION

DOT

UN number : 2920
Description of the goods : Corrosive liquids, flammable, n.o.s.
(contains quaternary ammonium compounds, Isopropanol)
Class : 8
Packing group : II
Labels : 8 (3)
Emergency Response : 132
Guidebook Number

TDG

UN number : 2920
Description of the goods : CORROSIVE LIQUID, FLAMMABLE, N.O.S.
(contains quaternary ammonium compounds, Isopropanol)
Class : 8
Packing group : II
Labels : 8 (3)

IATA

UN number : 2920
Description of the goods : Corrosive liquid, flammable, n.o.s.
(contains quaternary ammonium compounds, Isopropanol)
Class : 8
Packing group : II
Labels : 8 (3)
Packing instruction (cargo aircraft) : 855
Packing instruction (passenger aircraft) : 851
Packing instruction (passenger aircraft) : Y840



IMDG-CODE

UN number : 2920
Description of the goods : CORROSIVE LIQUID, FLAMMABLE, N.O.S.
(contains quaternary ammonium compounds, Isopropanol)
Class : 8
Packing group : II
Labels : 8 (3)
EmS Number 1 : F-E
EmS Number 2 : S-C

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.
Corrosive. Causes skin burns.
Corrosive. Causes irreversible eye damage.
This pesticide is toxic to fish.

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

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

Isopropanol 67-63-0

Pennsylvania Right To Know

n-alkyldimethylbenzylammonium chloride 68391-01-5



| | | |
|---------------------------------|--|------------|
| New Jersey Right To Know | Isopropanol | 67-63-0 |
| | n-alkyldimethylbenzylammonium chloride | 68391-01-5 |
| | Isopropanol | 67-63-0 |

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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: 14
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. .