



**Arch
Chemicals,
Inc.**

**MATERIAL SAFETY
DATA SHEET**

FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL: 1-800-654-6911
 FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®: 1-800-424-9300
 FOR ALL MSDS QUESTIONS & REQUESTS, CALL: 1-800-511-MSDS

PRODUCT NAME: BAQUACIL Algicide
 EPA Registration Number: 1258-1264

1. PRODUCT AND COMPANY IDENTIFICATION

Arch Chemicals, Inc. 501 Merritt 7 PO Box 5204 Norwalk, CT 06856-5204	REVISION DATE:	03/20/2006
	SUPERCEDES:	
	MSDS Number:	000000001324
	SYNONYMS:	None
	CHEMICAL FAMILY:	Mixture
	DESCRIPTION / USE:	algicide
FORMULA:	None established	

2. HAZARDS IDENTIFICATION

OSHA Hazard Classification:	Corrosive to eyes, skin and mucous membranes, Lung toxin, Flammable
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Routes of Entry:	Inhalation, skin, eyes, ingestion
Chemical Interactions:	No known or reported interactions.
Medical Conditions Aggravated:	None known or reported

Human Threshold Response Data

Odor Threshold	
ISOPROPYL ALCOHOL	22 ppm
Irritation Threshold	
ISOPROPYL ALCOHOL	Approximately 400 ppm

Hazardous Materials Identification System / National Fire Protection Association Classifications

<u>Hazard Ratings :</u>	<u>Health</u>	<u>Flammability</u>	<u>Physical / Instability</u>	<u>PPI / Special hazard.</u>
HMIS	3	2	0	
NFPA	Not established			

Immediate (Acute) Health Effects

Inhalation Toxicity: Inhalation of this material in dust or vapor form is irritating to the nose, mouth, throat and lungs. It may also cause burns to the respiratory tract which can result in shortness of breath, wheezing, choking, chest pain, and impairment of lung function. Inhalation of high concentrations may result in permanent lung damage.



Skin Toxicity: Not expected to be toxic from dermal contact. Dermal exposure can cause severe irritation and/or burns characterized by redness, swelling, and scab formation. Prolonged skin exposure may cause permanent damage.

Eye Toxicity: Severe irritation and/or burns can occur following eye exposure. Direct contact may cause impairment of vision and corneal damage.

Ingestion Toxicity: Moderately toxic if swallowed. Irritation and/or burns can occur to the entire gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, diarrhea, abdominal pain, bleeding, and/or tissue ulceration. Ingestion may cause severe damage to the gastrointestinal tract with the potential to cause perforation.

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

Prolonged (Chronic) Health Effects

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

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

Inhalation: Repeated inhalation exposure may cause impairment of lung function and permanent lung damage.

Skin Contact: Repeated dermal exposure may cause tissue destruction due to the corrosive nature of this product.

Ingestion: There are no known or reported effects from chronic ingestion except for effects similar to those experienced from single exposure. The acute corrosivity of this product, makes chronic ingestion of significant amounts unlikely.

Eye Contact: Corneal involvement or visual impairment is expected. Prolonged contact may result in permanent damage.

Sensitization: This product has not been tested. However based on similar structured materials, this product is not expected to cause allergic skin sensitization.

Chronic Target Organ Toxicity: This product is corrosive to all tissues contacted.

Supplemental Health Hazard Information : No additional health information available.

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 -



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.

5. FIRE FIGHTING MEASURES

Flammability Summary (OSHA):	Flammable.
<u>Flammable Properties</u>	
Flash Point:	37 °C / 100 °F
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

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.
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Spill Mitigation Procedures

Air Release:	Hazardous concentrations in air may be found in local spill area and immediately downwind.
Water Release:	This material is soluble in water. Retain all contaminated water for removal and treatment. Notify all downstream users of possible contamination.
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. Contain all contaminated water for disposal and/or treatment. Do not place spill materials back in their original containers.
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.

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. Upon contact with skin or eyes, wash off with water. 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 / 140 °F
Empty Container Warning:	Empty containers retain product residue (liquid and/or vapor) and can be dangerous.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation:	Local exhaust ventilation is recommended if vapors, mists, aerosols or dusts are generated. Otherwise, use general exhaust ventilation.
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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.
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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, An eye wash and safety shower should be provided in the immediate work area.

Exposure Limit Data

<u>CHEMICAL NAME</u>	<u>CAS #</u>	<u>Name of Limit</u>	<u>Exposure</u>
ISOPROPYL ALCOHOL	67-63-0	ACGIH	200 ppm TWA
ISOPROPYL ALCOHOL	67-63-0	ACGIH	400 ppm STEL
ISOPROPYL ALCOHOL	67-63-0	OSHA Z1	400 ppm PEL 980 mg/m ³ PEL
ISOPROPYL ALCOHOL	67-63-0	NIOSH-IDLH	2,000 ppm

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	No data.
Form	liquid
Color:	blue
Odor:	Benzaldehyde-like
Molecular Weight:	Not Applicable/Mixture
Specific Gravity :	0.9600 (@ 25 Deg. C)
pH :	6.5 - 8.3 at 10 g/l
Boiling Point:	101 °C / 214 °F
Freezing Point:	No data.
Melting Point:	No data
Density:	No data.
Vapor Pressure:	44.00000000 mmHg68.00 °F
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	

10. STABILITY AND REACTIVITY

Stability and Reactivity Summary: Stable under normal conditions.

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

11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

Oral LD50 value:

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

Dermal LD50 value:

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-18-ALKYL ISOPROPYL ALCOHOL No data
LD50 = 13,000 mg/kg Rabbit

Inhalation LC50 value:

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-18-ALKYL ISOPROPYL ALCOHOL No data
Inhalation LC50 8 HOUR = 16,000 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.

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

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.
ISOPROPYL ALCOHOL 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.



ISOPROPYL ALCOHOL

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.

12. ECOLOGICAL INFORMATION

Ecological Toxicity Values for: ISOPROPYL ALCOHOL

	Bluegill	- (nominal, static). 96 HOUR LC50 > 1,400 mg/l
Fathead minnow (Pimephales promelas),		- (measured, flow-through) 96 HOUR LC50 10,400 mg/l
Mosquito fish		- (nominal, static). 96 HOUR LC50 > 1,400 mg/l
	Daphnia magna,	- (nominal, static). 24 HOUR EC50 9,714 mg/l
Common shrimp (Crangon crangon)		- (nominal, renewal). 48 HOUR LC50 1,400 mg/l

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

14. TRANSPORT INFORMATION

Land (US DOT): UN2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S. (QUATERNARY AMMONIUM COMPOUND, ISOPROPANOL) 8 3 II

Water (IMDG): UN2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S., (QUATERNARY AMMONIUM COMPOUND, ISOPROPANOL) 8 3 II

Air (IATA): Flash Point: 37.78 °C
UN2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S., (QUATERNARY AMMONIUM COMPOUND, ISOPROPANOL) 8 3 II

Emergency Response Guide Number: ERG # 132



15. REGULATORY INFORMATION

UNITED STATES:

Toxic Substances Control Act (TSCA): This is an EPA registered pesticide.

EPA Pesticide Registration Number: 1258-1264

FIFRA Listing of Pesticide Chemicals (40 CFR 180): This product is regulated under the Federal Insecticide, Fungicide and Rodenticide Act. It must be used for purposes consistent with its labeling.

Superfund Amendments and Reauthorization Act (SARA) Title III:

Hazard Categories Sections 311 / 312 (40 CFR 370.2):

Health Immediate (Acute) Health Hazard

Physical Fire Hazard

Emergency Planning & Community Right to Know (40 CFR 355, App. A):

Extremely Hazardous Substance Section 302 - Threshold Planning Quantity:

SARA III Threshold Planning Quantity: None established

Reportable Quantity (49 CFR 172.101, Appendix):

CERCLA Reportable quantity: RCRA HAZARDOUS WASTE NO. D001
UNLISTED HAZARDOUS WASTES
CHARACTERISTIC OF IGNITABILITY
Value: 100lbs

SARA III Reportable quantity: None established

Supplier Notification Requirements (40 CFR 372.45), 313 Reportable Components

SARA III De minimis concentration: ISOPROPYL ALCOHOL (MANUFACTURING-
STRONG ACID PROCESS, NO SUPPLIER
NOTIFICATION)
Value: 1.0%

Clean Air Act Toxic ARP Section 112r:

CAA 112R None established

Clean Air Act Socmi:

HON SOC None established

Clean Air Act VOC Section 111:

CAA 111

US. EPA Clean Air Act (CAA) Section 111 SOCM I Intermediate or Final Volatile Organic Compounds (40 CFR 60.489)

CAA 111
01 1996
ISOPROPYL ALCOHOL

Clean Air Act Haz. Air Pollutants Section 112:



CAA None established

CAA 112I None established

CAA AP None established

**State Right-to-Know Regulations Status of Ingredients
Pennsylvania:**

CAS #	COMPONENT NAME
67-63-0	2-PROPANOL

PENN RTK

US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

PENN RTK
08 1989
2-PROPANOL

New Jersey:

CAS #	COMPONENT NAME
67-63-0	2-PROPANOL

NJ RTK

US. New Jersey Community Right-To-Know Survey, Table A: NJ Environmental Hazardous Substances [EHS] List (N.J. Admin. Code Title 7 Section 1G-2.1)

NJ RTK
2001
Substance no. 1076
ISOPROPYL ALCOHOL (MANUFACTURING - STRONG ACID PROCESS ONLY)

Massachusetts:

CAS #	COMPONENT NAME
67-63-0	2-PROPANOL

MASS RTK

US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

MASS RTK
04 1993
2-PROPANOL ISOPROPYL ALCOHOL

California Proposition 65:

CAS #	COMPONENT NAME
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US CA CRT None established

US CA65CRT None established

WHMIS Hazard Classification:

WHMIS None established



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16. OTHER INFORMATION

MSDS REVISION STATUS : Revised to meet the ANSI standard of 16 sections
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. .