



**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 AD ALGICIDE 20**  
 EPA Registration Number: 1258-1274

**1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Arch Chemicals, Inc. 501 Merritt 7 PO Box 5204 Norwalk, CT 06856-5204</b>	REVISION DATE:	01/27/2006
	SUPERCEDES:	01/27/2006
	MSDS Number:	000000002252
	SYNONYMS:	None
	CHEMICAL FAMILY:	Quaternary Ammonium Salt
	DESCRIPTION / USE:	algacide
	FORMULA:	None established

**2. HAZARDS IDENTIFICATION**

OSHA Hazard Classification:	<b>Irritating to eyes, respiratory tract and gastrointestinal tract.</b>
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Routes of Entry:	Inhalation, ingestion, eye contact
Chemical Interactions:	No known interactions
Medical Conditions Aggravated:	Asthma, respiratory and cardiovascular disease

Human Threshold Response Data

Odor Threshold	Not established.
Irritation Threshold	Not established.

**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	1	1	0	
NFPA	Not established			

Immediate (Acute) Health Effects

Inhalation Toxicity:	May cause respiratory irritation.
Skin Toxicity:	Not expected to be irritating.
Eye Toxicity:	Contact may cause mild irritation consisting of transient redness, swelling, and mucous membrane discharge to the conjunctiva.



Ingestion Toxicity: Ingestion may cause irritation of the gastrointestinal tract and gastrointestinal discomfort with any or all of the following symptoms: nausea, vomiting or diarrhea.

Acute Target Organ Toxicity: Eyes, Lungs, Digestive 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: There are no known or reported effects from chronic exposure except for effects similar to those experienced from acute exposure.

Skin Contact: There are no known or reported effects from chronic exposure.

Skin Absorption: No significant adverse effects to health would be expected to occur.

Ingestion: There are no known or reported effects from chronic ingestion except for effects similar to those experienced from single exposure.

Eye Contact: Contact would be expected to cause minor irritation, consisting of transient redness and swelling.

Sensitization: This material tested negative for skin sensitization in animals.

Chronic Target Organ Toxicity: Eyes, Digestive Tract, Lungs

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>
1,2-ETHANEDIAMINE, N,N,N',N'-TETRAMETHYL-, POLYME	31075-24-8	
Water	7732-18-5	

**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

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Flammability Summary (OSHA): Product is not known to be flammable, combustible, pyrophoric or explosive.

### Flammable Properties

Flash Point: 100 °C / 212 °F

Autoignition Temperature: Not applicable

Fire / Explosion Hazards: Material may be ignited only if preheated to high temperatures, for example in a fire.

Extinguishing Media: Not Applicable. - Choose extinguishing media suitable for surrounding materials.

Fire Fighting Instructions: In case of fire, use normal fire-fighting equipment and the personal protective equipment recommended in Section 8.

Hazardous Combustion Products: Carbon monoxide, Carbon dioxide

Upper Flammable / Explosive Limit, % in air: Not applicable

Lower Flammable / Explosive Limit, % in air: Not applicable

## 6. ACCIDENTAL RELEASE MEASURES

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Personal Protection for Emergency Situations: Use the personal protective equipment recommended in Section 8 and a NIOSH approved self-contained breathing apparatus.

### Spill Mitigation Procedures

Air Release: Not applicable

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.



## 7. HANDLING AND STORAGE

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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.

Shelf Life Limitations: No shelf life limit established.

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

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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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 : If vapors, mists or aerosols are generated, wear a NIOSH approved respirator. Wear a NIOSH approved N100 particulate respirator.

Respirator Type : A NIOSH approved half-face air purifying respirator with P100 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 to avoid skin contact.

Eye Protection: Use safety glasses with side shields.

Protective Clothing Type: Impervious

### Exposure Limit Data

<u>CHEMICAL NAME</u>	<u>CAS #</u>	<u>Name of Limit</u>	<u>Exposure</u>
No Data Found			

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Physical State:	liquid,
Form	liquid
Color:	Clear brown
Odor:	Slight
Molecular Weight:	Not applicable/Mixture
Specific Gravity :	1.1500
pH :	7.0
Boiling Point:	100 °C / 212 °F
Freezing Point:	No data.
Melting Point:	-16 °C 3 °F
Density:	No data.
Vapor Pressure:	No data.
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:	No data
Volatiles, % by vol.:	No data
VOC Content	No data
HAP Content	No data

## 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.
Chemical Incompatibility:	oxidizers, hypochlorites
Hazardous Decomposition Products:	Carbon monoxide, Carbon dioxide, Oxides of nitrogen, Hydrogen chloride
Decomposition Temperature:	No data

## 11. TOXICOLOGICAL INFORMATION

### Component Animal Toxicology

#### Oral LD50 value:

1,2-ETHANEDIAMINE,  
N,N,N',N'-  
TETRAMETHYL-,  
POLYME

LD50 (60% Active Ingredient) = 3,690 mg/kg Rat Male

1,2-ETHANEDIAMINE,  
N,N,N',N'-  
TETRAMETHYL-,  
POLYME

LD50 (60% Active Ingredient) = 1,850 mg/kg Rat Female

#### Dermal LD50 value:

1,2-ETHANEDIAMINE,  
N,N,N',N'-  
TETRAMETHYL-,  
POLYME

LD50 (60% Active Ingredient) > 2,000 mg/kg Rabbit

#### Inhalation LC50 value:

1,2-ETHANEDIAMINE,  
N,N,N',N'-  
TETRAMETHYL-,  
POLYME

Inhalation LC50 1 HOUR (60% Active Ingredient) > 26.4 MG/L Rat

### Product Animal Toxicity

#### Oral LD50 value:

Believed to be > 5g/kg

#### Dermal LD50 value:

> 2g/kg

#### Inhalation LC50

LC50 1 HOUR > 50 MG/L Rat

#### value:

Skin Irritation:

Not expected to be irritating.

Eye Irritation:

Contact may cause moderate irritation consisting of transient redness, swelling, and mucous membrane discharge to the conjunctiva.



Skin Sensitization: This material tested negative for skin sensitization in animals.  
Acute Toxicity: Irritating to eyes, respiratory tract and gastrointestinal tract.  
Subchronic / Chronic Toxicity: There are no known or reported effects from chronic exposure.

Reproductive and Developmental Toxicity: This product did not cause developmental effects in a study with laboratory animals.

1,2-ETHANEDIAMINE, N,N,N',N'-TETRAMETHYL-, POLYME This chemical has been tested in laboratory animals and no evidence of teratogenicity was seen. (60% Active Ingredient)

Mutagenicity: This chemical has been tested and was shown to be non-mutagenic.  
1,2-ETHANEDIAMINE, N,N,N',N'-TETRAMETHYL-, POLYME This chemical has been tested and was shown to be non-mutagenic. (60% Active Ingredient)

Carcinogenicity: This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.  
1,2-ETHANEDIAMINE, N,N,N',N'-TETRAMETHYL-, POLYME This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.

## 12. ECOLOGICAL INFORMATION

Overview: Toxic to fish and other aquatic organisms.

### Ecological Toxicity Values for: 1,2-ETHANEDIAMINE, N,N,N',N'-TETRAMETHYL-, POLYME

Rainbow trout ( <i>Salmo gairdneri</i> ),	-	96 HOUR LC50 0.43 mg/l (60% Active Ingredient)
Bluegill sunfish	-	96 HOUR LC50 0.45 mg/l (60% Active Ingredient)
Daphnia magna,	-	48 HOUR LC50= 0.162 mg/l (60% Active Ingredient)
Bobwhite quail	-	Oral LD50 1 ml/kg, (60% Active Ingredient)
Mallard duck	-	Dietary LC50 > 20,000 ppm (60% Active Ingredient)

## 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 DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D.

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

## 14. TRANSPORT INFORMATION

Land (US DOT): NOT REGULATED AS A DOT HAZARDOUS MATERIAL  
Water (IMDG): NOT REGULATED AS A HAZARDOUS MATERIAL,

Flash Point: 100.00 °C  
Air (IATA): NOT REGULATED AS A HAZARDOUS MATERIAL,  
Emergency Response Guide Number: Not applicable

## 15. REGULATORY INFORMATION

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### UNITED STATES:

Toxic Substances Control Act (TSCA): This is an EPA registered pesticide.  
EPA Pesticide Registration Number: 1258-1274

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 Not established  
Physical Not established

### 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 None established  
SARA III Reportable quantity: None established

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

SARA III De minimis concentration: None established

#### 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 None established

#### 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
PENN RTK	None established

**New Jersey:**

CAS #	COMPONENT NAME
NJ RTK	None established

**Massachusetts:**

CAS #	COMPONENT NAME
MASS RTK	None established

**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

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MSDS REVISION STATUS :    Revised to meet the ANSI standard of 16 sections  
SECTIONS REVISED:            5  
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. .