



SAFETY DATA SHEET
Algem II - 0300

Product Name: Algem II
Revision Date: 6/8/2015

SECTION 1 **IDENTIFICATION**

Supplier: Phoenix Products Company
55 Container Drive
Terryville, CT 06786
(860) 589-7502

Distributor:

U.S. PERS Emergency Telephone: 1-800-633-8253

Product Name: **Algem II**

Synonyms: 1-Decanaminium,N-decyl-N,N-dimethyl-,chloride; Bio-Dac; Bardac 22; BTC 1010

Chemical Name: Didecyl Dimethyl Ammonium Chloride

Chemical Formula: $C_{22}H_{48}ClN$

CAS Number: 7173-51-5

Product Use: A water treatment microbiocide for swimming pools.

SECTION 2 **HAZARDOUS COMPONENTS**

Emergency Overview



Danger – Corrosive

GHS Hazard Statements

- H314: Causes severe skin burns and eye damage.
- H302: Harmful if swallowed
- H332: Harmful if inhaled
- H401: Toxic to aquatic life.

GHS Precautionary Statements

- P210: Keep away from heat and open flames.
- P234: Keep only in original container.
- P260: Do not breathe vapor.
- P262: Do not get in eyes, on skin, or on clothing.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P264: Wash thoroughly with soap and water after handling.
- P321: Specific treatment (see First Aid Measures on this label).
- P362+364: Take off contaminated clothing and wash it before reuse.

Prevention: Do not breathe dust/fume/gas/mist/vapors/spray. Wash exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Potential Health Effects

Ingestion: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin Contact: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.



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Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Wash contaminated clothing before reuse. Collect spillage.

SECTION 3 **COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS Number	Percent
Didecyl Dimethyl Ammonium Chloride	7173-51-5	10%
Ethanol	67-17-5	<1%-6%

SECTION 4 **FIRST-AID MEASURES**

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

Skin Contact: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician

Ingestion: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell

Most important symptoms/effects, acute and delayed: Skin burns and eye damage.

Indication of immediate medical attention and special treatment needed: Provide general supportive measures and treat symptomatically.

SECTION 5 **FIRE FIGHTING MEASURES**

Suitable Extinguishing Media: Dry chemical, foam, water spray or carbon dioxide extinguishers

Specific hazards arising from the chemical: A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health. Do not breathe in smoke. In the event of a fire combustion products are toxic.

Special protective equipment and precautions for firefighters: Do not flush down sewers or other drainage systems. As in any fire, wear self-contained breathing apparatus and full protective gear. Water mist may be used to cool closed containers.

Fire-Fighting Equipment/Instructions: In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage.

Specific Methods: Use standard firefighting procedures and consider the hazards of other involved materials. Move container from fire area if it can be done without risk. In the event of fire and/or explosion do not breathe fumes.

SECTION 6 **ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective protection, equipment and emergency procedures: Wear protective gloves/protective clothing/eye protection/face. Use appropriate containment to avoid environmental contamination. For personal protection, see SECTION 8.



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SECTION 6 ACCIDENTAL RELEASE MEASURES - Continued

Methods and materials for containment and cleaning up:

Small Spillages: Ventilate closed spaces before entering. All equipment used when handling the product must be grounded. Floor will be slippery. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Large Spillages: Dike far ahead of liquid spill for later disposal. Pump into containers for disposal.

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. Use appropriate containment to avoid environmental contamination.

SECTION 7 HANDLING AND STORAGE

Precautions for Safe Handling: Do not breathe dust/fume/gas/mist/vapors/spray. Wash exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Conditions for safe storage, including any incompatibilities: Prevent access by unauthorized personnel. No smoking, eating or drinking in areas where the mixture is used. Keep the container tightly closed and in a cool, well-ventilated place. Keep from freezing. Do not handle or store near an open flame, heat or other sources of ignition. Prevent electrostatic charge buildup by using common bonding and grounding techniques.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Substance	Ethanol			
Cas No.	64-17-5			
	Limit Value – 8 Hours		Limit Value – Short Term	
	ppm	mg/m³	ppm	mg/m³
Canada-Ontario	-	-	1000	-
Canada-Québec	1000	1880	-	-
USA-NIOSH	1000	1900	-	-
USA - OSHA	1000	1900	-	-

Appropriate Engineering Controls: Provide adequate local exhaust ventilation (explosion proof) to maintain worker exposure below exposure limits.

Individual protection measures, such as personal protective equipment

Eye/Face Protection: Wear tightly fitting safety goggles. If splashes are likely to occur, wear face-shield.

Hand Protection: Wear chemically resistant gloves in combination with employee training.

Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or if irritation is experienced, a NIOSH/MSNA approved respirator or an organic/vapor removing cartridge respirator protection device should be worn. Ventilation and other forms of engineering controls are often the preferred means for controlling chemical exposures. Respiratory



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protection may be needed for non-routine or emergency situations.

General Hygiene Considerations: Use personal protective equipment that is clean and has been properly maintained. Never eat, drink, or smoke during use. Remove and wash contaminated clothing before re-using.

SECTION 9 **PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	Colorless to light straw liquid.
Odor:	Benzaldehyde
Specific Gravity H₂O=1:	0.91 - 0.94
pH :	6-9 for 10% Aqueous Solution
Boiling Point:	Not Available
Freezing Point:	Not Available
Melting Point:	Not Available
Density:	0.95 g/cm ³ (20 °C)
Bulk Density:	Not Available
Vapor Pressure:	Not Available
Vapor Density:	> 1
Viscosity (cSt at 22°C):	Not Available
Solubility in Water:	Soluble
Partition coefficient (n-octanol/water):	Not Available
Evaporation Rate:	Not Available
Flash Point:	54.4 °C
Volatiles, % by vol.:	50%
Molecular Weight:	362.08

SECTION 10 **STABILITY AND REACTIVITY**

Reactivity: None expected under recommended handling and storage conditions.

Chemical Stability: Stable under recommended handling and storage conditions listed in SECTION 7.

Possibility of Hazardous Reactions: No hazardous reactions to be expected under recommended handling and storage conditions.

Conditions to Avoid: Avoid: Heat and strong oxidizing agents

Incompatible Materials: Strong oxidizing agents (may result in fire) and reducing agents.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide and toxic hydrogen chloride vapors.

SECTION 11 **TOXICOLOGICAL INFORMATION**

Ingestion: May be harmful if swallowed.

Inhalation: Due to lack of data the classification is not possible.

Skin Contact: Causes severe skin burns.

Eye Contact: Causes eye damage.



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Symptoms related to the physical, chemical and toxicological characteristics: Skin burns and eye damage.

SECTION 11 **TOXICOLOGICAL INFORMATION - Continued**

Acute Toxicity

Component Animal Toxicology

Oral LD50 value:

didecyldimethylammonium chloride
LD50 = 360 mg/kg Rat
ALCOHOL DENAT. LD50 = 7,060 mg/kg Rat

Dermal LD50 value:

didecyldimethylammonium chloride
LD50 > 2,000 mg/kg Rabbit
ALCOHOL DENAT. LD50 Believed to be > 2,000 mg/kg Rabbit

Inhalation LC50 value:

didecyldimethylammonium chloride
No data
ALCOHOL DENAT. Inhalation LC50 10 h = 20,000 ppm Rat

Product Animal Toxicity

Oral LD50 value: LD50 Believed to be 450 mg/kg rat
Dermal LD50 value: LD50 Believed to be > 2,000 mg/kg rabbit
Inhalation LC50 value: no data available

Skin Corrosion/Irritation: Causes severe skin burns
Serious Eye Damage/Irritation: Causes eye damage

Respiratory Sensitization: Based on available data, the classification criteria are not met.
Skin Sensitization: Based on available data, the classification criteria are not met.
Germ Cell Mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive Toxicity: Based on available data, the classification criteria are not met.
Specific Target Organ Toxicity: Based on available data, the classification criteria are not met.
Aspiration Hazard: Based on available data, the classification criteria are not met
Chronic Effects: Based on available data, the classification criteria are not met

SECTION 12 **ECOLOGICAL INFORMATION**

Ecotoxicity: This product is toxic to fish

Chemical	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Didecyl Dimethyl Ammonium Chloride	-	LC50 = 0.32 mg/L 96h LC50 = 1.0 mg/L 96h	-	LC50 = 0.094 mg/L 48h



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Ethyl alcohol	-	-	EC50 = 34634 mg/L 30 min EC50 = 35470 mg/L 5 min	EC50 = 10800 mg/L 24 h EC50 = 9268 mg/L 48 h
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Persistence and Degradability: Readily biodegradable. Not persistent in the environment.

Bioaccumulative Potential: Not considered bioaccumulative.

Mobility in Soil: No information 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 product.

SECTION 13 **DISPOSAL CONSIDERATIONS**

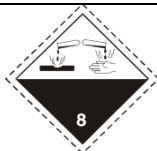
Disposal Instructions: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Chemical additions, processing or otherwise altering this material may make waste management information presented in the SDS incomplete, inaccurate or otherwise inappropriate.

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: Dispose of in accordance with local regulations.

Contaminated Packaging: Non-refillable container: Do not reuse container (bottle, cans, jars). Triple rinse (or equivalent). Offer for recycling if available or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities. Refillable container: Refill this container with pesticide only. Do not reuse this container for any other purpose. To clean the container before final disposal; empty the remaining contents from this container into application equipment or a mix tank. Drain rinsate into application equipment and dispose of according to Pesticide Disposal instructions. Triple rinse container (or equivalent) promptly after emptying. Continue to drain for 10 seconds after the flow ends. Repeat this procedure two more times.

SECTION 14 **TRANSPORTATION INFORMATION**



DOT: **UN Number:** 1903
UN Proper Shipping Name: DISINFECTANT LIQUID, CORROSIVE, N.O.S. (DIDECYLDIMETHYLAMMONIUM CHLORIDE)
Transport Hazard Class: 8
Packing Group: II

TDG: **UN Number:** 1903
UN Proper Shipping Name: DISINFECTANT LIQUID, CORROSIVE, N.O.S. (DIDECYLDIMETHYLAMMONIUM CHLORIDE)
Transport Hazard Class: 8
Packing Group: II

MEX: **UN Number:** 1903
UN Proper Shipping Name: DISINFECTANT LIQUID, CORROSIVE, N.O.S. (DIDECYLDIMETHYLAMMONIUM CHLORIDE)
Transport Hazard Class: 8



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Packing Group: II

IMDG: UN Number: 1903
UN Proper Shipping Name: DISINFECTANT LIQUID, CORROSIVE, N.O.S.
(DIDECYLDIMETHYLAMMONIUM CHLORIDE)

Transport Hazard Class: 8
Packing Group: II
EMS-No.: F-A, S-B
Marine Pollutant: Yes

SECTION 14 **TRANSPORTATION INFORMATION - Continued**

IATA: UN Number: 1903
UN Proper Shipping Name: DISINFECTANT LIQUID, CORROSIVE, N.O.S.
(DIDECYLDIMETHYLAMMONIUM CHLORIDE)

Transport Hazard Class: 8
Packing Group: II

SECTION 15 **REGULATORY INFORMATION**

INTERNATIONAL CHEMICAL REGISTRATION INFORMATION

Registration for All Components

United States (TSCA) registered or exempt: Yes
Australia (AICS) registered or exempt: Yes
Canada (DSL/NDSL) registered or exempt: Yes
China (IECSC) registered or exempt: Yes
Europe (EINECS) registered or exempt: Yes
Japan (ENCS) registered or exempt: Yes
Korea (ECL) registered or exempt: Yes
Philippines (PICCS) registered or exempt: Yes

US REGULATIONS

SARA 313: Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

Acute Health Hazard: Yes
Chronic Health Hazard: No
Fire Hazard: No
Sudden Release of Pressure Hazard: No
Reactive Hazard: No

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61): This product does not contain any HAP's

Federal Insecticide, Fungicide and Rodenticide Act (FIFRA): 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. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.



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SECTION 16 ***OTHER INFORMATION***

No representations or warranties, either expressed or implied, of merchant ability, fitness for a particular purpose or any other nature are made hereunder with respect to information or the product to which information refers.

Date: 6/8/2015
Phoenix Products Company