



MATERIAL SAFETY DATA SHEET

Date Issued: 07/26/2011
Date-Revised:
Revision No:

AQUADUET Water-Based Dual-Action Adulticide

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: AQUADUET Water-Based Dual-Action Adulticide

PRODUCT DESCRIPTION: A water-based dual-action adulticide for effective control of adult mosquitoes, gnats, non-biting midges, biting and non-biting flies in outdoor residential and recreational areas.

EPA REGISTRATION NUMBER: 1021-2562-8329

ACTIVE INGREDIENT(S): Prallethrin (ETOC®); d-Phenothrin (SUMITHRIN®); Piperonyl Butoxide

MANUFACTURER

Clarke Mosquito Control Products, Inc.
110 E. Irving Park Rd., 4th Floor
Roselle, Illinois 60172

Manufacturer's Phone No.: (630) 894-2000

24 HR. EMERGENCY TELEPHONE NUMBERS

EMERGENCY PHONE: (888) 740-8712

CHEMTREC U.S. and CANADA: (800) 424-9300

CHEMTREC all other areas: (703) 527-3887

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: CAUTION. Take prudent precautions to avoid contact with skin, eyes, and clothing.

Wear a long-sleeved shirt and long pants, shoes, and socks.

Pilots must use an enclosed-cockpit which meets the requirements listed in the Worker Protection Standard (WPS) for Agricultural Pesticides [40 CFR 170.2400(d)(6)].

POTENTIAL HEALTH EFFECTS

EYES: May cause temporary irritation, tearing, and blurred vision.

SKIN: Can cause skin irritation. Can cause a burning or prickling sensation on more sensitive areas (face, eyes, mouth).

SKIN ABSORPTION: No short-term harmful effects expected.

INGESTION: Maybe harmful if swallowed in large amounts.

INHALATION: Excessive inhalation may be irritating to the respiratory tract.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

CHRONIC EFFECTS: None know.

COMMENTS: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS	EINECS
Prallethrin (ETOC®)	1.000%	23031-36-9	245-387-9
d-Phenothrin (SUMITHRIN®)	5.000%	26002-80-2	247-404-5
Piperonyl Butoxide	5.000%	51-03-6	200-076-7
Petroleum Distillates	< 1.000%	64742-47-8	265-149-8

COMMENTS: Ingredients not identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing the eye. Call a poison control center or a doctor for treatment advice.

SKIN: 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.

IF SWALLOWED: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give a liquid to the person. Do not give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth. Call a poison control center or doctor for further treatment advice.



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NOTES TO PHYSICIAN: The decision to induce vomiting should be made by an attending physician. If ingested, this material presents aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: > 93.3°C (200° F) TAG Closed Cup

FLAMMABLE CLASS: This product is NOT classified as flammable or combustible by OSHA.

EXTINGUISHING MEDIA: Foam, carbon dioxide, or dry chemical.

HAZARDOUS COMBUSTION PRODUCTS: This product is classified as Non-Combustible, however in the extreme temperatures that fires may produce, some of the constituents of this formula may decompose to give off such gases as carbon dioxide, carbon monoxide, and nitrogen oxides.

FIRE FIGHTING PROCEDURES: Treat as an oil fire. Use a full-faced self-contained breathing apparatus and full protective gear. Keep nearby containers and equipment cool with a water stream.

6. ACCIDENTAL RELEASE MEASURES

SPILL RESPONSE: Stop release, if possible without risk. Dike or contain release, if possible, and if immediate response can prevent further damage or danger. Isolate and control access to the release area. Take actions to reduce vapors. For large spills, collect product into drums, storage tanks, etc., via drains, pumps, etc. For all spills, absorb with appropriate absorbent such as sand, or vermiculite. Clean spill area of residues and absorbent.

WASTE DISPOSAL: Dispose in accord with local, state, and federal regulations.

ENVIRONMENTAL PRECAUTIONS: WATER SPILL: Contains pyrethroids which are toxic to fish and aquatic invertebrates. Contaminated absorbent and wash water should be disposed of according to local, state/provincial and federal/national regulations.

7. HANDLING AND STORAGE

HANDLING: Wear a long-sleeved shirt, long pants, shoes, and socks. Take prudent precautions to avoid contact with skin, eyes, and clothing. Mechanical ventilation should be used when handling this product in enclosed spaces. Do not contaminate water, food or feedstuffs, by storage, handling, or by disposal. Read and observe all precautions and instructions on the label.

STORAGE: Store in a cool, dry place. Keep container closed. Always store pesticides in the original container.

KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

Table with 5 columns: Chemical Name, Exposure Limit Type, OSHA PEL, ACGIH TLV, Supplier OEL. Rows include Prallethrin (ETOC), d-Phenothrin (SUMITHRIN), Piperonyl Butoxide, and Petroleum Distillates.

Engineering Controls: Mechanical ventilation should be used when handling this product in enclosed spaces. Local exhaust ventilation may be necessary.

Personal Protective Equipment: Take prudent precautions to avoid contact with skin, eyes, and clothing. Wear a long-sleeved shirt and long pants, shoes, socks.

Work Hygienic Practices: DO NOT SMOKE, EAT, OR DRINK, OR APPLY COSMETICS IN WORK AREA! Wash promptly if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking, or using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Opaque, white liquid

ODOR: Sweet surfactant odor

SPECIFIC GRAVITY: 1.012 (Water = 1) at 20°C (68°F)

VISCOSITY: 11.2 CPS at 22.8°C (73.0°F) Brookfield

pH: 5.3

VAPOR DENSITY: Heavier than air.

BOILING POINT: Not Available

FREEZING POINT: Not Determined

FLASHPOINT & METHOD: see Section 5

SOLUBILITY IN WATER: Miscible in water.



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10. STABILITY AND REACTIVITY

STABLE: Yes
HAZARDOUS POLYMERIZATION: No
CONDITIONS TO AVOID: Not compatible with strong acids or bases. Not compatible with strong oxidizers.

11. TOXICOLOGICAL INFORMATION

ACUTE
Dermal LD₅₀ > 5000 mg/kg Notes: Albino Rabbit
Oral LD₅₀ > 5000 mg/kg Notes: Albino Rat
Oral LC₅₀: The Acute Inhalation LC₅₀ of this material places it in EPA Toxic Category IV.

EYE EFFECTS: Irritation clearing in 24 hours.

SKIN EFFECTS: Slight irritation at 72 hours. Irritation index = 0.90

SENSITIZATION: Negative; Not considered to be a dermal sensitizer to albino guinea pigs.

GENERAL COMMENTS: Some or all of the toxicity data reported above was abridged from a substantially similar formula.

COMMENTS: None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as being carcinogenic.

Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures to PBO. The significance of these observations is questionable and under review. The doses at which tumors were observed for PBO greatly exceeded potential human exposure from labeled uses. Doses at which these effects were observed greatly exceeded anticipated human dietary intake. At anticipated dietary exposure levels, it is highly unlikely that this product will result in carcinogenic effects.

12. ECOLOGICAL INFORMATION

This product is toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or wash waters.

BEE WARNING: This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply to or allow drift onto blooming crops or weeds when bees are visiting the treatment area, except when applications are made to prevent or control a threat to public and/ or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes, or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

EMPTY CONTAINER:

For Non-Refillable Containers:

Triple-rinse as follows for non-refillable containers less than < 5 gallons (< 18.9 L) or less: Empty the remaining contents into application equipment or a mix-tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and re-cap. Shake for 10 seconds. Pour rinsate into application equipment or a mix-tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple-rinse as follows for non-refillable containers greater than > 5 gallons (> 18.9 L): Empty the remaining contents into application equipment or a mix-tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix-tank or store rinsate for later use or disposal. Repeat this procedure two more times.



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For Refillable Containers:

Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

RCRA/EPA WASTE INFORMATION: This product contains the following RCRA/CERCLA Hazardous wastes/substances: None

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME

This material is not regulated as a hazardous material by the DOT (Shipping name: Insecticides, Insect or Animal Repellents, Liquid, N.O.S.)

PRIMARY HAZARD CLASS/DIVISION: Non-Hazardous

OTHER SHIPPING INFORMATION: This material is not regulated by the DOT as a hazardous material when shipped in Non-Bulk quantities (i.e., less than 119 gallons / 450 liters).

When shipping in Bulk-quantities (i.e., more than 119 gallons / 450 liters), please contact Clarke Mosquito Control Products, Inc. for the shipping description.

AIR (ICAO/IATA)

SHIPPING NAME: Insecticides, Insect or Animal Repellent, Liquid, N.O.S.

PRIMARY HAZARD CLASS/DIVISION: none

VESSEL (IMO/MDG)

SHIPPING NAME: Not Available

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

FIRE: No **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:**Yes

313 REPORTABLE INGREDIENTS

COMPONENT, CAS#, Max %

Piperonyl Butoxide, 000051-03-6, 5.00

d-Phenothrin (SUMITHRIN®), 026022-80-2, 5.00

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: There are no SARA Title III Section 302 extremely hazardous substances present in this formulation (40 CFR 355).

There are no components that are subject to emergency requirements under CERCLA Section 103(a)(40 CFR 302.4) in this formulation.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA Status: All chemical substances found in this product comply with the Toxic Substances Control Act's inventory reporting requirements.

REGULATIONS

STATE REGULATIONS:

VOLATILE ORGANIC COMPOUNDS (VOC):

This product contains less than 4% VOC's.

16. OTHER INFORMATION

0 - Minimal

1 - Slight

2 - Moderate

HMIS HAZARD RATINGS

Health 1

Flammability 1



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3 - Serious	Physical	1
4 - Extreme	PPE	X

Notes: We assign HMIS ratings to this product based on the hazards of its ingredient(s). Since the user is most aware of the applications and conditions of use, he or she must ensure that the proper Personal Protective Equipment is provided, consistent with the information contained in Sections 7 and 8 of the MSDS.

The data contained herein are based on information currently available to Clarke Mosquito Control Products, Inc. and, to the best of our knowledge, are accurate and based on sound expert opinion. Our statements herein, however, are not to be taken as a warranty or representation for which Clarke Mosquito Control Products, Inc. assumes legal responsibility.