

Material Safety Data Sheet

Date last revised: 6 June 6, 2008

I. General Information

Chemical Name and Synonyms None: mixture/blend	Trade Name & Synonyms DUET® Dual-action Adulticide
Chemical Family Synergized Synthetic Pyrethroid	EPA Registration Number 1021-1795-8329
Proper DOT/ICAO/IATA Shipping Name Insecticides, Insect or Animal Repellent, Liquid, N.O.S.	DOT/ICAO/IATA Hazard Classification Non-Hazardous (in non-bulk quantities)
Registrant Clarke Mosquito Control Products, Inc.	Registrant's Phone Number (630) 894-2000
Address 159 North Garden Avenue Roselle, Illinois 60172	24 HOUR EMERGENCY TELEPHONE NUMBERS EMERGENCY PHONE: (888) 740-8712 CHEMTREC U.S. and CANADA (800) 424-9300 CHEMTREC All Other Areas (703)527-3887

II. Ingredients

Principal Hazardous Components	Wt. %	CAS #	EINECS#
Prallethrin (ETOC [®])	1.0	023031-36-9	245-387-9
d-Phenothrin (Sumithrin [®])	5.0	026002-80-2	247-404-5
Piperonyl Butoxide	5.0	000051-03-6	200-076-7
Petroleum Distillates	15-25	064742-47-8	265-149-8
Mineral Oil	50-75	008042-47-5	232-455-8

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

III. Physical Data

Boiling Point (°F): Not Available	Specific Gravity (H₂O = 1): 0.860 at 20 °C (68 °F)
Vapor Pressure (mm Hg.): Not Available	Vapor Density (Air = 1): Heavier than air
Solubility in Water: Immiscible in water	pH: Not Applicable
Appearance: Clear, yellow-colored liquid (Gardner Scale 1.0)	Odor: Solvent odor
Viscosity: 18 CPS at 22 °C (71.6 °F) Brookfield	(VOC): < 1.000%

IV. Fire & Explosion Hazard Data

Flash Point (Test 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.
Special Fire Fighting Procedures: Treat as an oil fire. Use a full-faced self-contained breathing apparatus along with full protective gear. Keep nearby containers and equipment cool with a water stream.
Sensitive to Static Discharge: Yes, use proper bonding and/or grounding procedures

V. Health Hazard Data

EMERGENCY OVERVIEW: CAUTION. Harmful if swallowed. Contains petroleum distillates; vomiting may cause aspiration pneumonia. Take prudent precautions to avoid contact with skin, eyes, and clothing. Do not use or store near heat or open flame.
POTENTIAL HEALTH EFFECTS & EMERGENCY FIRST AID
Skin Contact: Can cause skin irritation. Can cause a burning or prickling sensation on more sensitive areas (face, eyes, mouth). May be harmful if absorbed through the 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.
Eye: May cause temporary irritation, tearing, and blurred vision. 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 the eye. Call a poison control center or doctor for treatment advice.
Inhalation: Excessive inhalation of mists can cause nasal and respiratory irritation. Remove affected 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.

Material Safety Data Sheet

DUET® Dual-action Adulticide

Date last revised: 6 June 6, 2008

Ingestion: Harmful if swallowed. Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe lung injury. If swallowed, immediately call a poison control center or doctor for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or a doctor. Never give anything by mouth to an unconscious person.

Chronic Effects: None known

NOTES TO PHYSICIAN: Contains pyrethroids and petroleum distillates; vomiting may pose an aspiration pneumonia hazard. For skin effects, a highly efficient therapeutic agent for pyrethroid exposure is topical application of Tocopherol Acetate (Vitamin E).

VI. Reactivity Data

Stable:	YES
Incompatibility	Strong acidic or alkaline materials. Not compatible with strong oxidizers.
Hazardous Polymerization:	NO

VII. Environmental Protection Procedures

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. Absorb with appropriate absorbent such as sand, or vermiculate. Clean spill area of residues and absorbent.

Environmental Precautions: Water Spill: Contains pyrethroids which are toxic to fish and other aquatic invertebrates. Contaminated absorbent and wash water should be disposed of according to local, state/provincial and federal/national regulations.

Storage: Store in a cool, dry place. Keep container closed. Do not contaminate water, food or feedstuffs by storage, handling, or by disposal.

Disposal Considerations: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Triple rinse (or equivalent) empty containers and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other approved State and Local procedures

RCRA/EPA Waste Information: None of the ingredients in this product appear on the RCRA lists (40 CFR 261.24, 40 CFR 251.33) or CERCLA Hazardous Substance list (40 CFR Part 302 Table 302.4).

Electrostatic Accumulation Hazard: This product contains petroleum distillates for which there is potential for the accumulation of static electricity. Consideration should be given to bonding and grounding of equipment during loading, unloading, and transfer of this product.

VIII. Special Protection Information

Exposure Guidelines (TWA)	OSHA PEL	ACGIH TLV	Supplier OEL
Prallethrin (ETOC [®])	None	None	None
d-Phenothrin (Sumithrin [®])	None	None	None
Piperonyl Butoxide	None	None	None
Petroleum Distillates	None	5 mg/m ³ (skin)	100 ppm / 525 mg/m ³
Hydrotreated Paraffinic Oil	5 mg/m ³ (mist)	5 mg/m ³ (mist)	None

Eye and Face Protection: Take prudent precautions to avoid contact with eyes.

Skin Protection: Take prudent precautions to avoid contact with skin and clothing.

Respiratory Protection: Wearing a respirator is not normally required when handling this product. Use in well ventilated areas.

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

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.

IX. Toxicological Information

Acute Dermal LD50 > 2000 mg/kg (albino rabbit)	Acute Oral LD50 > 5000 mg/kg (albino rat)
Inhalation LC50: The acute inhalation LC50 of this material places it in EPA toxicity 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.	

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 carcinogens.

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X. Additional Regulatory Information

DOT (Department of Transportation)

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 for the proper shipping description.

AIR (ICAO/IATA)

Shipping Name: Insecticides, Insect or Animal Repellent, Liquid, N.O.S.

Primary Hazard Class/Division: Non-hazardous

SARA Title III (Superfund Amendments and Reauthorization Act)

311/312 Hazard Categories:

FIRE: NO	PRESSURE GENERATING: NO	REACTIVITY: NO	ACUTE: YES
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313 Reportable Ingredients (Component, CAS#, Max %)

Piperonyl butoxide, 000051-03-6, 5.0

d-Phenothrin (Sumithrin®), 026002-80-2, 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).

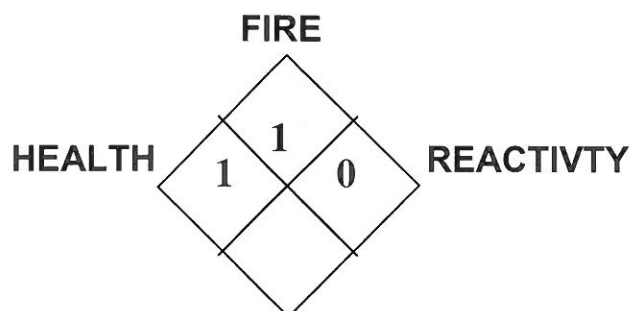
There are no components that are subject to emergency requirements under CERCLA Section 103(a) (40 CFR 302.4) in this formulation.

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.

State Regulations

Volatile Organic Compounds (VOC): This product contains less than 1% VOCs.



NFPA Code Key

- 4 = Severe
- 3 = Serious
- 2 = Moderate
- 1 = Slight
- 0 = Minimal

The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. **NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.**