AGNIQUE MMF **MOSQUITO LARVICIDE & PUPICIDE**

Monomolecular Surface Film for Control of Immature Mosquitoes and Midges

- CAN BE USED IN: Habitats Containing Birds, Fish, Pets and Wildlife
 Ponds Pools Ditches Irrigation Water Potable Water Containers
 Flood Water Areas Other Areas Where Mosquitoes Breed and Develop
 Biodegradable Spreads to Cover Hard to Reach Areas



ACTIVE INGREDIENT

Poly (oxy-1,2-ethanediyl), α -(C16-20 branched and

EPA Reg. No. 7969-333

EPA Est. No. 53263-OH-001

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID		
If on skin or clothing	 Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice. 	
If in eyes	 Hold eye open and rinse slowly and gently with plenty of water for 15 to 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. 	
HOTLINE NUMBER		

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact BASF Corporation for emergency medical treatment information at 1-800-832-HELP (4357).

PRECAUTIONARY STATEMENTS

Hazards to Human and Domestic Animals

CAUTION. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

Net Contents: 53 gallons NVA 2012-24-401-0004

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

Pesticide Storage

DO NOT allow storage containers to rust. Rust contaminants may clog spray nozzles. **DO NOT** allow product to freeze.

Pesticide Disposal

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

Container Disposal

Nonrefillable container. DO NOT reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by other procedures approved by state or local authorities.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Intended to be used in governmental mosquito control program, by professional pest control operators, or in other mosquito or midge control operations.

APPLICATION DIRECTIONS

This product may be applied by both ground and aerial applications. To use, calculate the desired rate based on water surface area. The water depth is not a factor in rate determination. Spray the desired rate of AGNIQUE® MMF Mosquito Larvicide & **Pupicide** onto the surface of the water. No dilution is required and a fan spray is recommended. **AGNIQUE MMF** will spread to cover hard to access areas. For large areas with dense vegetation, apply in several locations to assist in the spreading action. DO NOT pour or inject a stream spray directly into water. AGNIQUE MMF is not visible on the surface of the water. Excess **AGNIQUE MMF** on the water surface will form a white globule.



APPLICATION SITES

This product is for the control of immature mosquitoes and midges in areas where they breed and develop. This product may be used in habitats including potable water and irrigation waters, permanent and semi-permanent waters, irrigated croplands and pastures, and waters with outlets to natural water bodies. The following habitats provide examples of where the product can be applied but is not intended to be all inclusive.

Fresh and Brackish Water: Fresh water and salt marshes, ponds, lakes, storm water, drainage systems and retention & detention basins, roadside ditches, grassy swales, flooded fields and pastures, potable water containers,

reservoirs, irrigated croplands, temporary and semi-permanent woodland pools, tidal water, and other areas where water accumulates.

Residential Areas: Ponds, storm water basins, tree holes, rain barrels, landscape and ornamental ponds, tires, storm drains, stationary flower pots, pot holes, gutters, tarps, potable water containers and residential areas where water accumulates and provides ideal breeding habitats for mosquitoes or midges. **Not for Homeowner Use in the States of CA and NY.**

Polluted Waters: Sewage lagoons, percolation ponds, animal waste effluent lagoons, septic ditches, waste treatment facility areas, etc.

Application Rates	Application Rates	
	MOSQUITO HABITAT	MIDGE HABITAT
Fresh and Brackish Water*	0.2 to 1.0 gallons/acre* (2 to 10 liters/hectare)*	0.5 to 1.0 gallons/acre^ (5 to 10 liters/hectare)^
Polluted Waters**	0.35 to 1.0 gallons/acre** (3.5 to 10 liters/hectare)**	0.5 to 1.0 gallons/acre^ (5 to 10 liters/hectare)^

- * Use the lower rate (0.2 gallons/acre) when only pupae control is desired and in sites with no emergent vegetation and low organic content.
- * Use higher rates when emergent or surface vegetation is present, due to the wicking action of the product. The more vegetation or the drier the vegetation, the higher the required rate.
- ** Use higher rates in polluted water habitats for effective control.
- ^ Reapply every two weeks during the midge season.

APPLICATION INFORMATION

Rate of Kill: The rate of kill when using AGNIQUE® MMF Mosquito Larvicide & Pupicide is dependent on the species, the life stage, the habitat and the temperature. Pupicidal action will typically result in 24 hours. Larvicidal action will usually result in 24 to 96 hours. If the film is present, control will be achieved.

Persistence: The **AGNIQUE MMF** surface film typically persists on the water's surface for 5 to 22 days. Polluted waters will cause more rapid degradation of the film. Higher application rates will prolong film life and extend the interval between retreatment.

Species: Mosquitoes and midges that require little or no surface contact for breathing will be affected by the product during the pupae and emerging adult life stages.

Wind: The high end of the dosage rate is recommended when spraying habitats where multi-directional winds of 10 mph (16 km/hr) or greater are expected to persist. While the film will be pushed by the winds, it will re-spread quickly once the winds have subsided. If persistent unidirectional winds of 10 mph (16 km/hr) or greater are expected, the displacement of the surface film may result in poor control.

Spray Tanks: Thoroughly clean and dry the spray system of contaminants such as petroleum oils, water, detergents and conventional toxicants prior to adding **AGNIQUE MMF**. Detergents will destroy the film-forming of **AGNIQUE MMF**; other contaminants (water and oil) can result in the formation of an unsprayable paste.

Dilution: AGNIQUE MMF is typically applied to the water's surface without dilution. However, if it is desired to spray higher volumes of liquid,

AGNIQUE MMF may be diluted using a high shear injection system that dilutes AGNIQUE MMF at the nozzle to a maximum of 10% in water. DO NOT add AGNIQUE MMF to water in nonagitated spray systems. Conventional bypass recirculation will not provide adequate agitation to effectively mix AGNIQUE MMF in water. AGNIQUE MMF may also be diluted in AGNIQUE MMF Diluent, Eco-Ash A, or another appropriate diluent. AGNIQUE MMF may be diluted 1 part AGNIQUE MMF to 4 parts or greater of diluents. Fill the spray tank or container with the desired amount of AGNIQUE MMF Diluent, Eco-Ash A, or another appropriate diluent, and then add the correct amount of AGNIQUE MMF. Agitate to ensure a homogeneous solution. When diluting with AGNIQUE MMF Diluent, Eco-Ash A, or another appropriate diluent, the use of metering pumps, injector systems or other mixing systems is optional.

Application rates based on two dilution options:

AGNIQUE MMF to Diluent	Application Rate of Diluted Product
1 part to 4 parts	1 to 5 gallons/acre
1 part to 9 parts	2 to 10 gallons/acre

When a different dilution rate is used, adjust the application rate accordingly. **DO NOT** use less than 4 parts diluents to 1 part **AGNIQUE MMF** because it may not form a stable, homogenous solution.

Expanding Waters: Significant expansion of the habitat's surface due to rain or tidal fluxes can be compensated for by using a dosage that is based on the largest expected surface area. This will ensure complete coverage, and eliminate the need for re-treatment of the flooded area.

CONDITIONS OF SALE AND WARRANTY

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product.

Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

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1. Product and Company Identification

Company
BASF CORPORATION
100 Campus Drive
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information
CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP

Substance number: 000000497685

2. Hazards Identification

Emergency overview

CAUTION:

KEEP OUT OF REACH OF CHILDREN.
KEEP OUT OF REACH OF DOMESTIC ANIMALS.
Avoid contact with the skin, eyes and clothing.
Wash thoroughly after handling.

See Product Label for additional precautionary statements.

State of matter: liquid Colour: light yellow

Odour: product specific, faint odour

Potential health effects

Primary routes of exposure:

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

Relatively nontoxic after single ingestion. Relatively nontoxic after short-term inhalation. Slightly toxic after short-term skin contact.

Irritation / corrosion:

May cause moderate irritation to the skin. May cause moderate but temporary irritation to the eyes.

Potential environmental effects

Aquatic toxicity:

Acutely harmful for fish. Acutely toxic for aquatic invertebrates.

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3. Composition / Information on Ingredients

CAS NumberContent (W/W)Chemical name881022-11-3100.0 %Ethoxylated Alcohol

4. First-Aid Measures

General advice:

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or physician for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment

If inhaled:

Remove the affected individual into fresh air and keep the person calm.

If on skin:

Rinse skin immediately with plenty of water for 15 - 20 minutes.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

If swallowed:

Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting. Have person sip a glass of water if able to swallow.

Note to physician

Antidote: No known specific antidote. Treatment: Treat symptomatically.

5. Fire-Fighting Measures

Flash point: 188 °C

Suitable extinguishing media:

foam, dry powder, carbon dioxide, water spray

Hazards during fire-fighting:

carbon monoxide, carbon dioxide,

If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released in case of fire.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

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6. Accidental release measures

Personal precautions:

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions:

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

Cleanup:

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Handling

General advice:

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect against heat. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Storage

General advice:

Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed.

Storage incompatibility:

General advice: Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

8. Exposure Controls and Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

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Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form: liquid

Odour: product specific, faint odour

Colour: light yellow

pH value: approx. 6 - 8 (1 %(m))

Melting point: < -30 °C Boiling point: > 300 °C

Density: approx. 0.89 g/cm3 (25 °C)
Solubility in water: not soluble

10. Stability and Reactivity

Conditions to avoid:

Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme temperatures. Avoid prolonged exposure to extreme heat. Avoid contamination. Avoid electro-static discharge. Avoid prolonged storage.

Substances to avoid:

strong oxidizing agents, strong acids, bases

Hazardous reactions:

The product is chemically stable.

Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

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Decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated., Prolonged thermal loading can result in products of degradation being given off.

Thermal decomposition:

Possible thermal decomposition products:

carbon monoxide, carbon dioxide

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. To avoid thermal decomposition, do not overheat.

11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50

Species: rat

Value: > 20,000 mg/kg

Type of value: LD50 Species: mouse Value: > 2,000 mg/kg

Inhalation:

Type of value: LC50 Species: rat Value: > 29 mg/l

Dermal:

Type of value: LD50 Species: rabbit

Value: > 2,000 mg/kg

Irritation / corrosion

Skin:

Species: guinea pig Result: Slightly irritating.

Species: rabbit Result: non-irritant

Eye:

Species: rabbit Result: non-irritant

Repeated dose toxicity

Experimental/calculated data: dog oral unspecified 2 years NOAEL: 1000 mg/kg/day

Genetic toxicity

Ames-test Salmonella typhimurium:negative

Carcinogenicity

Experimental/calculated data:

rat 500 mg/kg/day Result: negative

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12. Ecological Information

Fish

Acute:

Lepomis macrochirus/LC50: 290 mg/l Oncorhynchus mykiss/LC50: 98 mg/l

Aquatic invertebrates

Acute:

daphnia/LC50: 1.9 mg/l

Degradability / Persistence

Biological / Abiological Degradation

Test method: OECD 301B; ISO 9439; 92/69/EEC, C.4-C

Degree of elimination: 30 - 46 % (28 d)

Test method: OECD 301B; ISO 9439; 92/69/EEC, C.4-C

Degree of elimination: 41 - 66 % (42 d)

Test method: OECD Guideline 301 F Degree of elimination: 79 - 82 % (28 d)

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:

Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Reference Bill of Lading

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US blocked / registration status not clarified

Crop Protection TSCA, US released / exempt

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16. Other Information

Refer to product label for EPA registration number.

Recommended use: insecticide

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

MSDS Prepared by:

BASF NA Product Regulations msds@basf.com MSDS Prepared on: 2011/09/19

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