



SAFETY DATA SHEET

ULV MOSQUITOMASTER™ 412

Effective Date: 5 May 2017

v.02

Page 1 of 10

SECTION 1. Identification of the Substance/Mixture and of the Company

1.1 Product Identifier

Formulation Identifier: ULV MOSQUITOMASTER™ 412

EPA Registration Number: 8329-36

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant identified uses: Insecticide for control of adult mosquitoes

Uses advised against: See product label for use restrictions

1.3 Details of the Supplier of the Safety Data Sheet

Clarke Mosquito Control Products, Inc.
675 Sidwell Court
St. Charles, IL 60174 U.S.A.
+1 (630) 894-2000
Email: Clarke@clarke.com

1.4 Emergency Telephone Number

Poison Control Center (medical emergency): 1-800-214 – 7753

INFOTRAC (Transportation/Spill Emergency): 1-800-553-5053

SECTION 2. Hazards identification

United States (US)

According to OSHA 29 CFR 1910.1200 HCS (2012)

2.1 Classification of the Substance or Mixture

Classification

Aspiration Hazard, Category 1
STOT, Repeated Exposure: Category 1

Carcinogenicity, Category 2
STOT, Single Exposure, Category 2

Acute Toxicity, Oral, Category 4
Flammable Liquid, Category 4

Hazard Statements

May be fatal if swallowed and enters airways

Causes damage to organs (brain, central nervous system, respiratory system, skin, and/or eyes) through prolonged or repeated exposure via ingestion, inhalation, eye contact, and/or skin contact.

Suspected of causing cancer

May cause damage to organs (brain, central nervous system, skin, and eyes via inhalation, ingestion, eye contact, and/or skin contact)

Harmful if swallowed

Combustible liquid

Pictograms:



Signal Word: Danger

Precautionary Statements:

PREVENTION: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Do not breathe spray.



SAFETY DATA SHEET

ULV MOSQUITOMASTER™ 412

Effective Date: 5 May 2017

v.02

Page 2 of 10

Wear protective gloves, protective clothing, eye protection, and face protection.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Keep away from flames and hot surfaces.-No smoking.

RESPONSE: If swallowed: Immediately call a poison control center or doctor. Do NOT induce vomiting. Rinse mouth.

If exposed or concerned: Call a poison control center or doctor, and get medical advice/attention if you feel unwell. Treatment – See first aid statements in Section 4. Treat according to symptoms (decontamination, vital functions).

In case of fire: Use foam, dry chemical or carbon dioxide (CO₂) to extinguish.

STORAGE: Store locked up, in a well-ventilated place. Keep cool.

DISPOSAL: Dispose of contents and container in accordance with local/regional/national regulations.

2.2 Other Hazards Not Classifiable Under OSHA 2012 HCS

See product label for any additional hazards

SECTION 3. Composition/Information on Ingredients

3.1 Components

Substance Name	CAS No.	Concentration % w/w
Chlorpyrifos	2921-88-2	12.00
Permethrin	52645-53-1	4.00
Light Aromatic Solvent Naphtha	64742-95-6	5 – 7 *
1,2,4 Trimethylbenzene	95-63-6	< 1.74
Xylene	1330-20-7	< 0.17
White Mineral Oil	8042-47-5	< 77 *

* The exact percentage (concentration) of composition has been withheld as trade secret.

Ingredients not identified are non-hazardous and/or are not required to be disclosed pursuant to 29 CFR 1910.1200 (2012), and are withheld as trade secret.

SECTION 4. First Aid Measures

4.1 Description of First Aid Measures

Eye contact: Immediately flush eyes with water. Flush eyes with water for a minimum of 5 minutes, occasionally lifting and lowering upper lids. Get medical attention promptly. Remove contact lenses if worn.

Skin contact: Immediately flush skin with plenty of water. Remove clothing. Get medical attention immediately. Wash clothing separately and clean shoes before reuse.

Inhalation: Rescuers should put on appropriate protective gear. Remove from area of exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Keep victim warm. Get immediate medical attention. To prevent aspiration, keep head below knees.

Ingestion: DO NOT induce vomiting. Do not give liquids. Obtain emergency medical attention.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed.

Chlorpyrifos is a cholinesterase inhibitor. Symptoms of overexposure to this product can include systematic poisoning, excessive sweating, weakness, salivation, nausea, diarrhea, bradycardia, tachycardia, bronchorrhea, small pupils, central nervous system (CNS) depression, fasciculation, and convulsions. If poisoning is probable, treat the patient immediately.



SAFETY DATA SHEET

ULV MOSQUITOMASTER™ 412

Effective Date: 5 May 2017

v.02

Page 3 of 10

Eyes:	Acute exposure may cause mild eye irritation.
Skin:	Can be absorbed through skin, and produce CNS effects. May dry the skin leading to discomfort and dermatitis.
Inhalation:	Saturated vapors can be encountered in confined spaces and/or under conditions of poor ventilation. Vapors can cause irritation of the respiratory tract. May cause headache, nausea, weakness, lightheadedness, dizziness, drowsiness, and or stupor (CNS depression).
Ingestion:	May result in systematic poisoning. May cause gastrointestinal tract irritation, which may result in nausea and diarrhea. Small amounts of liquid aspirated into the lungs from ingestion or from vomiting (after ingestion) may cause chemical pneumonitis or pulmonary edema. May be fatal if liquid is aspirated into lungs.

4.3 Indication of Immediate Medical Attention and Special Treatment

Treatment (Note to Physician):

Chlorpyrifos is an cholinesterase inhibitor. Pralidoxime chloride (2-PAM, PROTOPAM chloride) may be effective as an adjunct to atropine. Use according to label directions. Before administering pralidoxime chloride, obtain a blood sample for cholinesterase analysis. Adjusting for age and weight, pralidoxime may be administered as a continuous infusion after a loading dose or using a bolus method. Clear airway and provide oxygen before administering atropine. Give atropine intramuscularly or intravenously, depending on severity of poisoning. Atropine may be administered through an alternative route such as an endotracheal tube. The dosage for atropine is as follows: 1 to 2 mg/kg initially IV in adults (or 0.05 mg/kg in children under 12 years) then give appropriate doses every 5 minutes until excessive secretions and sweating have been controlled. Use soap (preferably Tincture Green Soap) and water or dilute hypochlorite solution for decontaminating skin. Avoid opiates, parasymphomimetic agents (e.g. succinylcholine), theophylline, reserpine and or phenothiazines. Suction oral secretions and emesis to avoid aspiration. Artificial respiration or oxygen administration may be necessary. A slurry of activated charcoal may be medically warranted at an oral dose appropriate for adult, child or infant. For seizures, give benzodiazepine intravenously. Observe patient continuously for a least 72 hours. Allow no further exposure until cholinesterase generation has taken place as determined by blood tests.

Contains petroleum distillate. May pose an aspiration pneumonia hazard.

SECTION 5. Fire-Fighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Media: Carbon Dioxide (CO₂), Dry Chemical, Foam

Unsuitable Extinguishing Media: Water jet

5.2 Special Hazards Arising From the Substance or Mixture

Specific Hazards: Liquids and vapors are flammable. Vapors may cause flash fire or explosion. Vapors can travel to a source of ignition and flash back. Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. Also, do not reuse container without commercial cleaning or reconditioning. Closed container may explode under extreme heat. Under fire conditions some components may decompose. Combustion products may include CO, CO₂, hydrogen chloride, sulfur oxide, PO_x, NO_x, chlorides, and sulfides.

5.3 Special Protective Equipment and Precautions for Fire-Fighters

Protection Against Fire: Wear positive pressure, self-contained breathing apparatus and protective firefighting clothing (includes fire-fighting helmet, coat, pants, boots, and gloves).

Special Procedures: Treat as oil fire. Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Dike for later disposal. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.



SAFETY DATA SHEET

ULV MOSQUITOMASTER™ 412

Effective Date: 5 May 2017

v.02

Page 4 of 10

SECTION 6. Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

General Precautions: Avoid contact with spilled material.

For emergency responders: Respiratory protection: half-face or full-face respirator with filter(s) for organic vapor and, when applicable, H₂S, or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to aromatic hydrocarbons are recommended. Note: gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

Environmental Precautions: Prevent product from entering into drains and waterways. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Collect and dispose of this material and its container in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities. See Section 12 for additional ecological information.

6.2 Methods and Material for Containment and Cleaning Up

Clean Up Methods: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Large Spills: Water spray may reduce vapor; but may not prevent ignition in closed spaces. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Recover by pumping or with suitable absorbent.

SECTION 7. Handling and Storage

7.1 Precautions for Safe Handling

Handling: Keep out of reach of children. Use only in a well ventilated area. Avoid breathing vapor, fumes or mist. Avoid contact with eyes, skin, and clothing. Take precautionary measures against static discharge. When transferring, follow proper grounding procedures. Use spark-resistant tools. Always open containers slowly to allow any excess pressure to vent. Follow all SDS/label precautions even after containers are emptied because they may contain product residues.

Hygiene Measures: Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove soiled clothing immediately and clean thoroughly before using again.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Storage: Product should be stored in compliance with local regulations. Keep away from heat, sparks, and flame. Store containers in a cool, well ventilated place. Keep container closed when not in use. Protect from direct sunlight. Static Discharge: materials can accumulate static discharge which can cause an incendiary electrical discharge. Storage containers should be grounded and bonded. Fixed storage containers, transfer containers and associated equipment should be grounded and bonded to prevent accumulation of static charge. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilizers. Keep out of reach of children.



SAFETY DATA SHEET

ULV MOSQUITOMASTER™ 412

Effective Date: 5 May 2017

v.02

Page 5 of 10

SECTION 8. Exposure Controls / Personal Protection

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

8.1 Control Parameters

Component Name	CAS No.	List/Source	Type	Value
Chlorpyrifos	2921-88-2	ACGIH	TLV	0.2 mg/m ³ , A4 skin
Permethrin	52645-53-1	ACGIH	TWA	5 mg/m ³
		NIOSH	REL	5 mg/m ³
		OSHA	PEL	5 mg/m ³
1,2,4 Trimethylbenzene	95-63-6	ACGIH	TLV-TWA	25 ppm
		OSHA	PEL-TWA	25 ppm
Xylene	1330-20-7	ACGIH	TLV-TWA	100 ppm
		OSHA	PEL-TWA	100 ppm
White Mineral Oil	8042-47-5	ACGIH	TLV-TWA	5 mg/m ³ Inhalable Fraction
		OSHA	PEL-TWA	5 mg/m ³
		NIOSH	REL-TWA	5 mg/m ³ Mist

8.2 Exposure controls

Engineering Controls: Use with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Wash hands thoroughly after handling. Wash clothing before re-using.

Individual Protection Measures, such as Personal Protection Equipment:

Eye Protection: Wear safety glasses with side shields, tightly fitting safety goggles (chemical goggles), or glasses with face shield.

Skin Protection: Wear suitable protective clothing including long-sleeve shirt, long pants, shoes and socks. Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, coveralls.

Hand Protection: Wear suitable protective chemical resistant gloves. Protective glove selection must be based on the user's assessment of the workplace hazards.

Respiratory Protection: In case of insufficient ventilation, use a NIOSH approved filtering face piece respirator with any R or P filter (TC-84A). You can also use other NIOSH approved particulate respirators that offer more protection such as a half face or full face respirator with any filter or a powered air purifying respirator with an HE filter.

SECTION 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Appearance:	Liquid
Color:	Yellow
Odor:	Strong pesticide smell
Odor Threshold:	Not Available
pH:	Not Determined
Melting Point:	Not Applicable
Freezing Point:	Not Determined
Initial Boiling Point:	Not Determined
Flash Point:	62.0° C
Evaporation Rate:	Not Determined
Flammability:	Not Determined
Explosion limits [U/L]:	Not Applicable
Vapor Pressure:	Not Determined



SAFETY DATA SHEET

ULV MOSQUITOMASTER™ 412

Effective Date: 5 May 2017

v.02

Page 6 of 10

Vapor Density:	Not Determined
Density:	7.61 lbs/gal
Solubility:	Not Determined
Partition Coefficient:	Not Determined
Auto-Ignition Temperature:	Not Determined
Viscosity:	8.25 cSt at 40° C
Decomposition Temperature:	Not Available
Explosive Properties:	Not Available
Oxidizing Properties:	Not Available

SECTION 10. Stability and Reactivity

10.1 Reactivity

Not Available

10.2 Chemical Stability

Stable under normal conditions

10.3 Possibility of Hazardous Reactions

Hazardous Reactions: None under normal conditions

Hazardous Polymerization: Not known to occur

10.4 Conditions to avoid

Protect from open flames, high energy ignition sources, excessive heat, and direct sunlight.

10.5 Incompatible materials

Avoid contact with strong oxidizing agents, strong acids, strong bases

10.6 Hazardous decomposition products

None known under normal conditions of storage and use. Under fire conditions some components may decompose. Combustion products may include CO, CO₂, hydrogen chloride, sulfur oxide, PO_x, NO_x, chlorides, and sulfides.

SECTION 11. Toxicological information

11.1 Information on Likely Routes of Exposure

See Section 4.2

11.2 Information on Toxicological Effects

Acute Toxicity

Oral, Male Rat LD₅₀ 1,836 mg/kg-bw

Dermal, Rat LD₅₀ > 2,000 mg/kg-bw

Inhalation, Rat LC₅₀ > 5.0 mg/L

Skin Corrosion/Irritation: U.L.V. MOSQUITOMASTER™ 412 is not classified as a skin irritant according to the OSHA 2012 HCS. Mild skin irritation may occur from prolonged or repeated exposure to this product.

Eye Damage/Irritation: U.L.V. MOSQUITOMASTER™ 412 is not classified as an eye irritant according to the OSHA 2012 HCS. Mild eye irritation may occur from direct exposure to the product.

Skin Sensitization: U.L.V. MOSQUITOMASTER™ 412 is not a skin sensitizer.

Germ Cell Mutagenicity: Chlorpyrifos and Permethrin are not mutagenic. MOSQUITOMIST™ ONE U.L.V. is not expected to be mutagenic.



SAFETY DATA SHEET

ULV MOSQUITOMASTER™ 412

Effective Date: 5 May 2017

v.02

Page 7 of 10

Carcinogenicity:	<p>The product has not been tested. The product classification is derived from the properties of the individual components:</p> <p>Chlorpyrifos did not cause cancer in long-term animal studies.</p> <p>Permethrin caused at high dose levels an increased incidence of tumours in mice in the following organ(s): liver, Lungs. The mechanism that triggers tumours in rodents is not relevant for the low exposures encountered under normal use conditions.</p> <p>Permethrin is classified by IARC as Group 3 – Not classifiable as to its carcinogenicity to humans.</p> <p>Contains Xylene: Classified as Carcinogenic, Category 2 (suspected Carcinogen) according to the OSHA 2012 HCS, IARC Group 3</p>
Reproductive Effects:	<p>The product has not been tested. The product classification is derived from the properties of the individual components.</p> <p>Chlorpyrifos did not interfere with fertility in reproduction studies in laboratory animals. Some evidence of toxicity to the offspring occurred, but only at a dose high enough to produce significant toxicity to the parent animals.</p> <p>Teratogenicity (Chlorpyrifos): Birth defects are unlikely. Exposures having no effect on the mother should have no effect on the fetus. Did not cause birth defects in animals. Other effects were seen in the fetus only at doses which caused toxic effects to the mother.</p> <p>Permethrin did not cause reproductive toxicity in a two-generation study in rats.</p>
STOT – Single Exposure:	<p>The product has not been tested. The product classification is derived from the properties of the individual components:</p> <p>Vapors can cause irritation of the respiratory tract. High concentrations can cause headache, nausea, weakness, lightheadedness, and stupor (CNS depression).</p> <p>Chlorpyrifos is a cholinesterase inhibitor. Overexposure can result in systematic poisoning, excessive sweating, weakness, salivation, nausea, diarrhea, bradycardia, tachycardia, bronchorrhea, small pupils, central nervous system (CNS) depression, fasciculation, and convulsions.</p> <p>Contains Light Aromatic Solvent Naphtha: STOT-SE Category 2</p> <p>Contains 1,2,4 Trimethylbenzene: STOT-SE Category 2, Category 3-RTI</p> <p>Contains Xylene: STOT-SE Category 3, RTI</p>
STOT – Repeated Exposure:	<p>The product has not been tested. The product classification is derived from the properties of the individual components:</p> <p>May cause damage to organs (brain, central nervous system, respiratory system, skin, and/or eyes) through prolonged or repeated exposure via ingestion, inhalation, eye contact, and/or skin contact.</p> <p>Prolonged and/or repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis.</p> <p>Significant exposure to this chemical may adversely affect people with chronic disease of the respiratory system, central nervous system, skin, and/or eyes.</p> <p>Contains Light Aromatic Solvent Naphtha: STOT-RE Category 1</p> <p>Contains Xylene: STOT-RE Category 2</p>

SECTION 12. Ecological Information



SAFETY DATA SHEET

ULV MOSQUITOMASTER™ 412

Effective Date: 5 May 2017

v.02

Page 8 of 10

12.1 Ecotoxicity

Product specific data is not available. Data referenced is in relation to the active ingredients, Chlorpyrifos and Permethrin.

Toxicity to Fish:	Chlorpyrifos: 96-hr Acute LC ₅₀ 25 µg/L, Rainbow Trout Permethrin: 96-hr Acute LC ₅₀ 0.79 ppb, Bluegill Sunfish
Toxicity to Aquatic Invertebrates:	Chlorpyrifos: 48-hr LC ₅₀ 1.7 µg/L, Daphnia magna Permethrin: 96-hr LC ₅₀ 0.019 ppb, Mysid Shrimp
Toxicity to Aquatic Plants:	Chlorpyrifos: 72-hr NOEC >0.4 mg/L, Algae Permethrin: 72-hr EC ₅₀ 0.5 mg/L, Algae

12.1 Persistence and Degradability

Product specific data not available. Data referenced is in relation to the active ingredients, Chlorpyrifos and Permethrin.

Biodegradability:	Chlorpyrifos: Not readily biodegradable Permethrin: Not rapidly biodegradable
Log K _{ow} :	Chlorpyrifos: 4.70
Partition Coefficient, K _{oc} :	Chlorpyrifos: 360 – 31,000 Permethrin: 100,000
Bioaccumulation:	Chlorpyrifos does not bioaccumulate in aquatic organisms Bioconcentration (BCF) Permethrin: 300; does not bioaccumulate
Mobility in Soil:	Chlorpyrifos: Immobile in soil Permethrin: Immobile in soil

SECTION 13. Disposal Considerations

13.1 Waste Treatment and Disposal methods

Pesticide wastes are regulated. Consult product label for chemical substance and container disposal instructions. Avoid release to the environment. Improper disposal of excess product or rinsate is a violation of Federal law. If these wastes cannot be disposed or by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA regional office for guidance.

Container disposal: Rinse thoroughly in accordance with label instructions.

SECTION 14. Transport Information

14.1 DOT (US)

UN Number:	3082
Hazard Class:	9
Packing Group:	III
Proper Shipping Name:	Environmentally Hazardous Substances, Liquid, N.O.S. (Chlorpyrifos,)
Marine Pollutant:	Yes

14.2 IMDG (Vessel)

UN Number:	3082
Hazard Class:	9
Packing Group:	III
Proper Shipping Name:	Environmentally Hazardous Substances, Liquid, N.O.S. (Chlorpyrifos, Permethrin)
Marine Pollutant:	Yes

14.3 ICAO/IATA (Air transport)

UN Number:	3082
Hazard Class:	9
Packing Group:	III
Proper Shipping Name:	Environmentally Hazardous Substances, Liquid, N.O.S. (Chlorpyrifos, Permethrin)
Marine Pollutant:	Yes



SAFETY DATA SHEET

ULV MOSQUITOMASTER™ 412

Effective Date: 5 May 2017

v.02

Page 9 of 10

SECTION 15. Regulatory Information

FIFRA Information: This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal Word: CAUTION

KEEP OUT OF REACH OF CHILDREN

FIRST AID

Have product container or label with you when calling a poison control center or doctor, or going for treatment. For Medical Emergencies, call the International Poison Control Center at 1-800-214-7753.

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 any liquid to the person. Do not give anything by mouth to an unconscious person.
---------------	---

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.
-------------------------	---

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 the eye. Call a poison control center or doctor for treatment advice.
-------------	---

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. Call a poison control center or doctor for further treatment advice.
-------------	---

NOTE TO PHYSICIAN: Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. Atropine is antidotal. 2-PAM may be effective as an adjunct to atropine. This product contains petroleum distillate. Vomiting may cause aspiration pneumonia.

PRECAUTIONARY STATEMENTS: HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Caution. Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing. Avoid breathing of mist. Do not contaminate food or feed products. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

Personal Protective Equipment (PPE): Mixers and loaders involved in ground application must wear coveralls over long-sleeved shirt and long pants, shoes plus socks, chemical-resistant gloves made of Barrier Laminate, Butyl Rubber ≥ 14 mils, Nitrile Rubber ≥ 14 mils, Neoprene Rubber ≥ 14 mils, Polyvinyl Chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils, and a minimum of a NIOSH approved filtering face piece respirator with any R or P filter (TC-84A). You can also use other NIOSH approved particulate respirators that offer more protection such as a half face or full face respirator with any filter or a powered air purifying respirator with an HE filter. Applicators involved in ground ULV application must use an enclosed cab as described in the Engineering Controls section of this label and must wear long-sleeved shirt and long pants, shoes plus socks, and chemical-resistant gloves made of Barrier Laminate, Butyl Rubber ≥ 14 mils, Nitrile Rubber ≥ 14 mils, Neoprene Rubber ≥ 14 mils, Polyvinyl Chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils. Aerial applicators and pilots must use an enclosed cockpit and wear long-sleeved shirt, long pants, shoes, and socks.

Engineering Controls: Ground applicators must use an enclosed cab that has a nonporous barrier that totally surrounds the occupants and prevents contact with pesticides outside the cab. Applicators must be provided and have immediately available for use in an emergency when they must exit the cab in the treated area: coveralls, chemical-resistant gloves made of Barrier Laminate, Butyl Rubber ≥ 14 mils, Nitrile Rubber ≥ 14 mils, Neoprene Rubber ≥ 14 mils, Polyvinyl Chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils, and a respirator of the type specified in the PPE section of this labeling. Take off any PPE that was worn in the treated area before reentering the cab and store all such PPE in a chemical-resistant container, such as a plastic bag, to prevent contamination of the inside of the cab.

Mixers and loaders involved in aerial application must use a closed system designed by the manufacturer to enclose the pesticide to prevent it from contacting handlers or other people and which is used and maintained in accordance with the manufacturer's written operating instructions. Mixers and loaders using a closed system must wear protective eyewear if the system operates under pressure, and must have immediately available for use in an emergency, such as a broken package, spill, or equipment breakdown coveralls, chemical-resistant gloves made of Barrier Laminate, Butyl Rubber ≥ 14 mils, Nitrile



SAFETY DATA SHEET

ULV MOSQUITOMASTER™ 412

Effective Date: 5 May 2017

v.02

Page 10 of 10

Rubber ≥ 14 mils, Neoprene Rubber ≥ 14 mils, Polyvinyl Chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils, chemical-resistant footwear, chemical-resistant apron and a respirator of the type specified in the PPE section of this labeling.

User Safety Requirements: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS: Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Other Federal Regulations

SARA TITLE III CLASSIFICATION

Section 302: None

Section 311/312: **Fire. Immediate Health. Delayed Health.**

Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372

Chlorpyrifos	CAS# 2921-88-2	12.00%
Permethrin	CAS# 52645-53-1	4.00%
1,2,4 Trimethylbenzene	CAS# 95-63-6	≤ 1.75 %

CERCLA RQ: Chlorpyrifos, CAS# 2921-88-2, RQ 1 lb. RQ is obtained in a 1.1-gallon spill.
Spills exceeding RQ must be reported to the National Response Center.

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. California Proposition 65: Not listed.

STATE RIGHT-TO-KNOW: National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

SECTION 16. Other Information

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared as is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

™ MOSQUITOMASTER is a Trademark of Clarke Mosquito Control Products, Inc.

End of document