

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

August 23, 2023

Maryanne Kellogg Regulatory Consultant Loveland Products, Inc. c/o Pyxis Regulatory Consulting Inc. 4110 136th St. Ct. NW Gig Harbor, WA 98332

Subject: Registration Review Label Amendments Incorporating Mitigation from the Fish

and Wildlife Services (FWS) and the National Marine Fisheries Services (NMFS) Biological Opinions on the Effects of Malathion on Endangered and Threatened

Species and Designated Critical Habitat

Product Name: Clean Crop Malathion ULV Concentrate Insecticide

EPA Registration Number: 34704-565

Application Dates: August 25, 2022, and March 8, 2023

Decision Numbers: 587137 and 591134

Dear Maryanne Kellogg:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the FWS and NMFS' Biological Opinions on the effects of Malathion on federally listed Endangered and Threatened species and designated critical habitat in accordance with section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.). The Agency has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling

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before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions, please contact Carolyn Smith by phone at (202) 566-2273 or via email at smith.carolyn@epa.gov.

Sincerely,

Kelly Sherman

flyth

Chief, Risk Management Implementation Branch 3 Pesticide Re-evaluation Division Office of Pesticide Programs

Enclosure



MALATHION ULV Concentrate Insecticide

ACTIVE INGREDIENT:	%BYWT.
Malathion (O,O-Dimethyl phosphorodithioate of diethyl mercaptosuccinate)	96.5%
INERTINGREDIENTS**	<u>. 3.5%</u>
TOTAL	100.00%

Contains 9.9 lbs. Malathion per gallon

KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entien de la etiqueta, bus que a alguien para que se la explique a usted en detalle. (If you do not un derstand this label, find some one to explain it to you in detail.)

[For Additional Precautionary Statements, [Complete] [First Aid], Directions for Use, Storage and Disposal and Other Use Information, See [Inside] [This] [Label Booklet] [Booklet Label] [container label] [booklet and container label].]

[For Additional Precautionary Statements, Directions for Use, and Other Use Information, See Inside [This]([Attached] Label Booklet.]

	FIRST AID	
If swallowed:	Callapoisoncontrolcenterordoctorimmediatelyfortreatmentadvice.	
	Have a person sip a glass of water if able to swallow.	
	• Do not induce vomiting unless told to by a poison control center or doctor.	
	Do not give anything by mouth to an unconscious person.	
If inhaled:	Move person to freshair.	
	If person is not breathing, call 911 or ambulance, then give artificial respiration,	
	preferably by mouth-to-mouth, if possible.	
	Callapoison control center or doctor for further treatment advice.	
If on skin or	Take off contaminated clothing.	
clothing:	Rinse skin immediately with plenty of water for 15 to 20 minutes.	
_	Callapoisoncontrolcenter or doctor for treatment advice.	
If in eyes:	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.	
-	• Removecontactlenses, if present, after the first 5 minutes, then continue rinsing eye.	
	Callapoison control center or doctor for treatment advice.	
Note to Physic	ian: This material is a cholinesterase inhibitor. Treat symptomatically. Atropine is an	

Note to Physician: This material is a cholinesterase inhibitor. Treat symptomatically. Atropine is an antidote.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

For help with any spill, leak, fire, exposure involving this product, call day or night, CHEMTREC 1-800-424-9300. [See Below For Additional Precautionary Statements.]

ACCEPTED

08/23/2023

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

EPA Reg. No. 34704-565

EPA REG. NO. 34704-565 EPA EST. NO. 34704-MS-001 NET CONTENTS 2½ GALS (9.46 L)

From 022311 V2D 09Y11 EXP 0822

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PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed, inhaled, or absorbed through skin. Avoid breathing vapors or spray mist. Avoid contact with skin, eyes, or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber, nitrile rubber, and viton.

For all formulations and all use patterns – mixers, loaders, applicators, flaggers, and other handlers must wear:

- Long sleeved shirt and long pants
- Shoes plus socks
- Chemical resistant gloves
- Chemical resistant apron (for mixers and loaders only)

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.

See engineering controls for additional requirements.

ENGINEERING CONTROLS

Pilots must use an enclosed cockpit in a manner that is consistent with the WPS for Agricultural Pesticides [40 CFR 170.240(d)(6)]. Pilots must wear the PPE required on this labeling for applicators.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using to bacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates.

Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rain-fall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. In citrus, stone fruit, pome fruit and tree nuts: Do not apply this product within 3 days prior to bloom, during bloom, or until petal fall is complete. **Protect pollinating insects by following label directions intended to minimize drift and to reduce risk to these organisms.**

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent

containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

Reporting Ecological Incidents: To report ecological incidents, including mortality, injury, or harm to plants and animals, call 1-866-944-8565.

See separate directions and precautions for mosquito control applications.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any require-ments specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI). The REI for each crop is listed in the directions for use associated with each crop.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls,
- Shoes plus socks, and
- Chemical-resistant gloves made of any waterproof material.

PRECAUTIONS AND RESTRICTIONS

- All ULVaerial formulations other than those intended for use as a Wide area Mosquito Adulticide, must be packaged in closed mixing and loading systems.
- See separate directions and precautions for mosquito control applications.

Agricultural Application Uses

Malathion 8-E Insecticide is for use only by federal, state, tribal or local government officials responsible for insect control or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory Agency to perform grasshopper/Mormon Cricket, Beet Leafhopper or Boll Weevil control applications, or by persons under their supervision, or as allowed by state regulations for persons treating private property.

Do not apply this Malathion 8-E Insecticide when soil is saturated, or when a storm event likely to produce runoff from the treated area is forecasted (by NOAA/National Weather Service, or other similar forecasting service) to occur within 48 hours following application.

[Note to Reviewer: may or may not be presented in tabular format.]

Required Buffer Zones for Bodies of Water				
Bodies of Water	Type of Application	Buffer Zone (in Feet)		
Bodies of water, such as, but not	ULV Ground Application†	Do not apply within 50 feet of aquatic habitats [†]		
limited to, lakes, reservoirs, rivers, streams, wetlands, (natural) ponds, estuaries, and commercial fish ponds	ULV Aerial Application‡	Do not apply within 100 feet of aquatic habitats [‡]		
Aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, wetlands, ponds, estuaries,	Non-ULV Ground Application (includes ground boom and airblast applications)	Do not apply within 25 feet of aquatic habitats		
and commercial fish ponds).	Non-ULV Aerial Application	Do not apply within 50 feet of aquatic habitats		

You must follow the instructions for additional buffer distances, as applicable, per the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult http://www.epa.gov/espp/, call 1-844-447-3813, or email ESPP@epa.gov.

[Note to Reviewer: may or may not be presented in tabular format.]

Restricted Application Sites	Programs Allowed to Apply to These Sites
Agricultural, uncultivated areas and fence	Federal or State Sponsored Programs,
rows/hedge rows	Boll Weevil Eradication Programs,
Non-agricultural right of way/hedgerows	Curly Top Virus Programs,
	Other Federally or State designated programs.

MANDATORY SPRAY DRIFT MANAGEMENT

AIRBLAST APPLICATIONS

- Sprays must be directed into the canopy.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- User must turn off outward pointing nozzles at row ends and when spraying outer row.
- Do not apply during temperature inversions.

GROUND BOOM APPLICATIONS

- Do not release spray at a height greater than 4 feet above the ground or crop canopy.
- Applicators must select nozzle and pressure that deliver medium or coarser droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE S572).
- Do not apply when wind speeds exceed 10 mph at the application site.
- Do not apply during temperature inversions.

AERIAL APPLICATIONS - NON-ULV (Non-Ultra Low Volume)

- Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators must select nozzle and pressure that deliver medium or coarser droplets in accordance with American Society of Agricultural & Biological Engineers Standard (ASABE S641).
- If the windspeed is 10 miles per hour or less, applicators must use ¾ swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use a full swath displacement upwind at the downwind edge of the field.

[†] This 50-foot buffer is in addition to the full swath displacement upwind that applicators must use at the downwind edge of the field. Applications made by mosquito control districts and other public health officials are exempt from this buffer requirement.

[‡] This 100-foot buffer is in addition to the full swath displacement upwind that applicators must use at the downwind edge of the field. Applications made by mosquito control districts and other public health officials are exempt from this buffer requirement.

- Do not apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

Note to Reviewer: the following Spray Drift management language will only be placed on the label when agricultural ULV applications are listed on the label or on a Special Local Needs label.

MANDATORY SPRAY DRIFT MANAGEMENT

AERIAL APPLICATIONS – ULV (Ultra Low Volume (ULV) APPLICATIONS)

(for wide-area mosquito control, pasture and rangeland and federal/state/tribe/local government insect control programs)

- Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators must select nozzle and pressure that deliver fine or coarser droplets in accordance with American Society of Agricultural & Biological Engineers Standard (ASABE S641).
- Applicators must use a full swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

SPRAY DRIFT REQUIREMENTS

Observe the following requirements when spraying in the vicinity of aquaticareas such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds.

Droplet Size—Use the largest droplet size consistent with acceptable efficacy. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.

Inconditions of low humidity and high temperatures, applicators should use a coarser droplet size.

Wind Direction and Speed – For all non-aerial applications, wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.

Temperature Inversion – Do not make aerial or ground applications into areas of temperature inversions. Inversions are characterized by stable air and increasing temperatures with increasing distance above the ground. Mist or fog may indicate the presence of an inversion in humid areas. Where permissible by local regulations, the applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size. **Additional Requirements for Ground Applications** – Spray should be released at the lowest height consistent with pest control and flight safety.

For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy. **Additional Requirements for Aerial Applications**—For aerial applications, the spray booms hould be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices.

Aerial applicators must consider flight speed and nozzle orientation in determining droplet size.

When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

Before beginning treatment, notify all registered a piarists in or near the treatment area of the date and appropriate time of treatment.

IMPORTANT – Undiluted spray droplets of Malathion ULV will permanently damage automobile paint. If accidental exposure does occur, the vehicle should be washed immediately.

Consult your state experiment station or state extension service for proper timing of sprays. This

product is highly toxic to bees exposed to direct treatment or residues on crops. Protective information may be obtained from your Cooperative Agricultural Extension Service.

Resistance-Management Recommendations

For resistance management, Malathion 8 Aquamul contains a Group 1B insecticide/acaricide. Any insect or mite population may contain individuals naturally resistant to Malathion 8 Aquamul and other Group 1B insecticides/acaricides. The resistant individuals may dominate the insect/mite population if this group of insecticides/acaricides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide/acaricide resistance, take the following steps:

- Rotate the use of Malathion 8 Aquamul or other Group 1B insecticides/acaricides within a growing season, and among growing seasons, with different groups that control the same pests.
- Avoid consecutive sprays of Malathion 8 Aquamul or other insecticides in the 1B group during a season.
- Do not apply more than the maximum number of sprays allowed.
- Use tank mixtures with insecticides/acaricides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues target pest(s) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
 - o Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
 - o Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
 - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
 - o Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
 - The insect resistance management benefits of an insecticide mixture are greatest if the two
 components have similar periods of residual insecticidal activity. Mixtures of insecticides with
 unequal periods of residual insecticide activity may offer an insect resistance management
 benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide/acaricides use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Loveland Products, Inc at 1-866-944-8565 or at LovelandProducts.com and use the "contact us" link.

Endangered Species Protection Requirements:

It is a Federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g., kill or otherwise harm) of an endangered species and certain threatened species under the Endangered Species Act Section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product.

To obtain Bulletins, consult http://www.epa.gov/espp/ call 1-844-447-3813, or email ESPP@epa.gov. You must use the Bulletin valid for the month in which you will apply the product.

Pollinator Best Management Practices and Additional Information

Following best management practices can help reduce risk to terrestrial pollinators. Examples of best management practices include applying pesticides in the evening and at night when pollinators are not foraging and checking to confirm hive locations before spraying. For additional resources on pollinator best management practices, visit https://www.epa.gov/pollinator-protection/find-best-management-practices-protect-pollinators.

Managed pollinator protection plans are developed by states/tribes to promote communication between growers, landowners, farmers, beekeepers, pesticide users, and other pest management professionals to reduce exposure of bees to pesticides. If available, visit state plans for additional information on how to protect pollinators.

How to Report Bee Kills. It is recommended that users contact both the state lead agency and the U.S. Environmental Protection Agency to report bee kills due to pesticide application. Bee kills can be reported to EPA at beekill@epa.gov. To contact your state lead agency, see the current listing of state pesticide regulatory agencies at the National Pesticide Information Center's website: http://npic.orst.edu/reg/state_agencies.html.

AGRICULTURAL USES Operating Instructions

Malathion ULV is used undiluted in specially designed aircraft or ground equipment capable of applying ultra low volumes for control of the insects indicated. Aerial applications are most effective when made at a height of 5 feet and a swath width of 50 feet. Apply only when weather conditions are favorable. Wind and rising air currents may cause undesirable spray drift and reduce insect control.

Use mist blowers and boom sprayers utilizing a controlled air flow to facilitate particle size and spray deposition at a vehicle speed of 4 to 10 mph.

Use mist blowers with a pump capable of producing up to 40 psi and blower speeds of 2600 rpm. Use flat fan nozzles, 8001 to 8002, placed 30° into air blast or rotary atomizers into the air blast that produces an efficient spray particle with a mass median diameter of 40 to 100 microns (Dv 0.5 = 100 um). Do not exceed 30 foot swath widths. Apply only when weather conditions are favorable. Wind and rising air currents may cause undesirable spray drift and reduce insect control.

Use boom sprayers with a filtered rotary air compressor, either PTO or gas engine driven or an air pump capable of producing at least 12 psi. Use air pressure on chemical tanks and an accurate metering valve to assure a calibrated flow of the pesticide. Regulate air with relief valve and gauge for proper air and liquid mixture. Pneumatic-type spray nozzles, as suggested by equipment manufacturer, are to be used for spray particles with mass median diameter of 30 to $100 \, \text{microns}$ (Dv $0.5 = 100 \, \text{um}$). Apply only when weather conditions are favorable. Wind and rising air currents may cause undesirable spray drift and reduce in sect control.

CROP TABLE

Use higher rate when foliage is heavy or infestation is severe.

Ultra Low Volume (ULV) applications made by ground equipment are prohibited except for the following cases:

- Wide- Area mosquito adulticide programs
- Federal and/or State insect control programs
- Pasture/ Rangeland use.

Crop	Pest	FI Ozs/A	Directions	Pre-Harvest Interval (PHI)			
Alfalfa	Alfalfa caterpillar	8.0	Apply when larvae are small.	0			
	Western yellow striped		Applywhenlarvaearelargeorwhen foliage is dense.				
	armyworm						
	Alfalfa weevil larvae	1	Apply when day temperatures are expected to	7			
			exceed 65 °F and when 50-75% of leaves show				
			feeding damage.				
	Beet armyworm		Apply when larvae are small.	╡			
	Grasshoppers	1	Apply when larvae are small	-			
		The Postricted Entry	□ I ≀Interval (REI) is 12 hrs. The maximum application rate is				
			numberofapplications/yris2/cutting;andthe minim				
	days.	iiotv į, tilė iliaxiiliuli	mumber of applications, ye is 2, cutting, and the minimi	uiiii eti eatiiieiitiiitei vaiis 1			
Barley	Cereal leaf beetle	4.0 to 8.0		7			
Бапеу		8.0	_	/			
	Grasshoppers						
			mumapplicationrateis0.61lbAl/A(8.0ozs/AMalathior	n ULV);tnemaximum			
- /- 0	number of applications/yris 2; a		reatment intervalis 7 days.	L			
Beans (Dry &	Green cloverworm Japanese	8.0		1			
Succulent)	beetle Leafhoppers Lygus bug						
	Mexican bean beetle						
	The Restricted-Entry Interval (R	EI) is 12 hrs. The maxii	mumapplication rate is 0.61 lb AI/A (8.0 ozs/A Malathior	n ULV);the maximum			
	number of applications/yr is 2; a	and the minimum reti	reatmentintervalis 7 days.				
Blueberries	Blueberry maggot	10.0		1			
		REI) is 12 hrs. The ma	aximumapplicationrateis0.77lbAI/A(10.0ozs/A Ma	lathion ULV); the maximum			
	number of applications/yris3; a			,,			
Cherries (Sweet)	Cherry fruit fly	12.0 to 16.0	Apply by aircraft only. Make first application assoona	s 1			
0	oneny mare my		fliesappear.	<u> </u>			
	The Restricted-EntryInterval	I RFI\is12hrs Thema	ximumapplicationrateis1.22lbsAl/A(16.0ozs/A Ma	lathion I II VI:the maximum			
	number of applications/yris4; and the minimum retreatment interval is 7 days. Do not apply this product within 3 days prior to bloom, during bloom, or until petal fall is complete.						
Cherries (Tart)	Cherry fruit fly	12.0 to 16.0	Applybyaircraftonly.Makefirstapplication assoona	c 1			
Cherries (Tart)	Cherry fruit fly	12.0 to 16.0	fliesappear.	5 1			
	The Destricted Faturilates well	DEI\:a12baa Thaasa		lathian IIII () the annautorous			
		•	ximumapplicationrateis1.22lbsAl/A(16.0ozs/A Ma				
			reatmentintervalis7days. Do not apply this product v	vitnin 3 days prior to bloon			
01	during bloom, or until petal fal		<u> </u>	h			
Clover	Blackgrass bugs Grasshoppers	8.0	Do not apply to clover in bloom.	0			
	Do not apply to clover in bloom. The Restricted-EntryInterval (REI) is 12 hrs. The maximum application rate is 0.61 lb AI/A (8.0 ozs/A						
	$Malathion\ ULV); the maximum number of applications/yr\ is 2/cutting; and the minimum retreatment interval is 14 days.\ The\ maximum\ ma$						
	number of applications per year	ar is 4.					
0 (=: 1.1)		1.0		L			
Corn (Field)	Adult corn rootworm	4.0	\dashv	/			
	Cereal leaf beetle	4.0 to 8.0	\dashv				
	Grasshoppers	8.0					
	The Restricted-Entry Interval (REI) is 72 hrs for detasseling and 12 hrs for all other activities. The maximum application rate is 0.61 lb Al/A activities Alice and Alice are also activities and activities are also activities are also activities and activities are also activities activities and activities are also activities and activities are also activities activities and activities activities are also activities and a						
	(8.0 ozs/A Malathion ULV); the maximum number of applications/yr is 2; and the minimum retreatment interval is 7 days.						
Corn (Sweet, Pop)	Adult corn rootworm	4.0		5			
	Cereal leaf beetle	4.0 to 8.0					
	Grasshoppers	8.0					
		The Restricted-Entry Interval (REI) is 72 hrs for detasseling and 12 hrs for all other activities. The maximum application rate is 0.61 lb AI/A					
	(8.0ozs/A Malathion ULV); the maximum number of applications/yr is 3; and the minimum retreatment interval is 5 days.						
	, , , , , , , , , , , , , , , , , , , ,	T	1,				
	Aphids (Green peach and	14.0 to 16.0		7			
Cotton							
	Cotton)		Fauluta mildanana	1			
(non Boll	Boll weevil	8.0 to 12.0	Early to midseason.				
(non Boll Weevil		8.0 to 12.0 12.0 to 16.0	Late season.	+			
Cotton (non Boll Weevil Eradication	Boll weevil						
(non Boll Weevil		12.0 to 16.0					

	Lugua huga	0.0+- 12.0	Madanata nandatiana			
	Lygus bugs	8.0 to 12.0 16.0	Moderate populations.			
	Tarnished plant bugs Thrips	4.0 to 8.0	Very heavy or migrating populations	-		
	The Restricted-Entry Interval maximum number of application	(REI) is 48 hrs. The ma ons/yr is 2; and the mi	I ximumapplicationrateis1.22lbsAI/A(16.0ozs/A M nimumretreatmentintervalis7days. For use on cotton nce-refined cottonseedorvegetableoilsufficienttom	n: Malathion ULV can be		
Cotton	Boll weevil	8.0 to 12.0	Early to midseason.	0		
Boll Weevil Eradication Program Use Aerial and		12.0 to 16.0	Late season.	-		
Groundboom JLV Applications	Minimum application interva	al is 3 days. Maximu	um number of applications per year is 25. Im application rate is 0.61 to 1.22 lbs ai/A used ea num application rate is 1.22 lbs AI/A (aerial) and 0			
Grain Sorghum	Grasshoppers Sorghum midge	12.0 to 16.0	Late season.	7		
	The Restricted-Entry Interva		maximumapplication rate is 0.61 lb AI/A (8.0 ozs, he minimum retreatment interval is 7 days.	/A Malathion ULV); the		
Oats	Cereal leaf beetle	4.0 to 8.0		7		
	Grasshoppers	8.0				
	maximum number of applic	ations/yris2; and t	maximum application rate is 0.61 lb AI/A (8.0 ozs, he minimum retreatment interval is 7 days.	/A Malathion ULV); the		
Pasture and Rangeland	Blackgrass bugs Cereal leaf beetle Grasshoppers	8.0 to 12.0	Higher rate is for grasshopper only	0		
	The Restricted-Entry Interval (REI) is 12 hrs. The maximum application rate is 0.92 lb AI/A (12.0 ozs/A Malathion ULV); the maximum number of applications per cutting is 1. Pasture: the minimum retreatment interval is 30 days. The maximum number of applications per Acre per year is 2. Rangeland: Outside of government programs, limit use to spot treatment only for grasshoppers and mosquito/fly control.					
Rice	Grasshoppers	8.0	(Aquatic restriction for rice only.) Broadcast use only over intermittently flooded areas. Application may not be made around bodies of water where fish or shellfish are grown and/or harvested commercially.	7		
	The Restricted-Entry Interval (REI) is 12 hrs. The maximum application rate is 0.61 lb AI/A (8.0 ozs/A Malathion ULV); the maximum number of applications/yr is 2; and the minimum retreatment interval is 7 days. If field is flooded with water at the time of application, a 24-hour holding time is required before releasing paddy water.					
Rye	Grasshoppers	8.0		7		
	The Restricted-Entry Interval (REI) is 12 hrs. The maximum application rate is 0.61 lb AI/A (8.0 ozs/A Malathion ULV); the maximum number of applications/yr is 1.					
Wheat, spring and winter	Cereal leaf beetle	4.0 to 8.0		7		
	Grasshoppers	8.0		<u> </u>		
			maximum application rate is 0.61 lb Al/A (8.0 ozs,	/A Malathion ULV); the		
Laurand D. J.			he minimum retreatment interval is 7 days. I	0		
lonagricultural	Beet leafhopper	8.0		0		
Rights-of-way/ Uncultivated	(on wild host plants) Blackgrass bugs Grasshoppers	8.0 to 12.0				
Areas/Soils Iimited to	The maximum application rate	e is 0.92 lb AI/A (12.0	ı Dozs/A Malathion ULV).	l		
State and Federal Programs only)		0.02 , , , , , , , , , , , , , , , , ,	,			

See separate directions and precautions for mosquito control applications.

MOSQUITO CONTROLIN POPULATED AND RURAL AREAS DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For use by federal, state, tribal, or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

When applying as a wide area mosquito adulticide, before making the first application in a season, it is advisable to consult with the state or tribal agency charged with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms, including fish and invertebrates.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply or allow it to drift onto blooming crops or weeds while bees are actively 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, trib- all or local public 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. When applying as a wide area mosquito adulticide, 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 discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

Reporting Ecological Incidents: To report ecological incidents, including mortality, injury, or harm to plants and animals, call 1-866-944-8565.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

PRECAUTIONS AND RESTRICTIONS

- Do not apply more than 0.23 pound active ingredient per acre per day.
- Only treat when mosquitoes are swarming or biting. Do not re-treat a site more than 3 times in any one week.
- However, more frequent treatments may be 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 diseases in animal or human
 populations, or if specifically approved by the state or tribe during a natural disaster effort.
- Apply when wind speed is greater than or equal to 1 mph.
- Do not apply by fixed wing aircraft at a height less than 100 feet, or by helicopter at a height less than 75 feet unless specifically approved by the state or tribe based on public health needs.
- Before using, read the directions contained in this labeling for the proper methods and procedures which must be followed to achieve effective in sect control and avoid permanent damage to automobile and other paint finishes.

Endangered Species Protection Requirements:

It is a Federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g., kill or otherwise harm) of an endangered species and certain threatened species under the Endangered Species Act Section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the

product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult http://www.epa.gov/espp/ call 1-844-447-3813, or email ESPP@epa.gov. You must use the Bulletin valid for the month in which you will apply the product.

Pollinator Protection (Recommendations)

To minimize hazard to bees, do not apply this product more than two hours after sunrise or more than two hours before sunset. This timing restriction prohibits applications when bees are most active (mid-day). This restriction does not apply when applications are made as a spot treatment or to prevent or control a threat to public and/or animal health determined by a state, tribal or local public 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.

Calibrate and inspect nozzles at least once a year to ensure they are in good working condition.

Ultra-Low Volume (ULV) Applications Mandatory Spray Drift Management

- Apply when ground wind speeds are equal to or greater than 1 mph.
- All types of applications should be conducted when temperatures at ground level are at or above 50°F.

For Ground Applications:

- Create an optimum swath when possible. An optimum swath width can be achieved when Malathhion 8-E is applied from a truck that is being driven perpendicular to the wind direction. Direct the spray head of equipment to ensure even distribution of the spray cloud throughout the area.
- FOR BEST RESULTS treat when mosquitoes or insects are most active and weather conditions are conducive to keeping the spray cloud in the air column close to the ground.
- An inversion of air temperatures and a light breeze is preferable. Application during the cooler hours of the night or early morning is recommended.

For Aerial Applications:

 Do not apply by fixed wing aircraft at a nozzle height less than 100 feet (30.5 m) above ground or canopy, or by helicopter at a height less than 75 feet (22.9 m) above the ground or canopy, unless specifically approved by the state or tribe based on public health needs.

For aerial applications as ULV sprays or fogs

Adult mosquito control applications should be limited to trained personnel.

- For use only by federal, state, tribal or local government officials responsible for public health or vector control or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory Agency to perform adult mosquito control applications, or by persons under their supervision, or as allowed by state regulations for persons treating private property.
- This pesticide is toxic to aquatic organisms. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to aquatic organisms.
- 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 beyond the body of water to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or wash waters
- Before making the first application in a season, consult with the state or tribal Agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.
- Treatment of a site must be based on surveillance results. Do not treat any site with malathion more than 1 time per day. Do not apply more than 0.23 lbs ai/acre of Malathion 8-E per day by air or 0.06 lbs ai/acre per day by ground within any 24-hour period. Do not treat any site with more than 0.46 lb ai/acre within a 7-day period and the amount of undiluted Malathion 8-E

applied to any site must not exceed 5.75 lbs ai/acre per year. More frequent treatments may be 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 diseases in animal or human populations, or if specifically approved by the state or tribe during a natural disaster effort.

AERIAL APPLICATION

Sprayequipmentmust be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 um) and 90% of the spray is contained in droplets smaller than 100 microns (Dv 0.9 < 100 um). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant or test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated. Adult mosquito control over cities, towns, and other areas where automobiles, trailers, trucks, and pleasure boats are present: Apply 2.6 to 3.0 fluid ounces of this product peracre. Apply only when weather conditions are favorable. Wind and rising air currents may cause undesirable spray drift and reduce insect control. See Precautions and Restrictions for additional instructions.

GROUND-BASED APPLICATION

Ground based ULV applications may be made only for wide-area adult mosquito control, by federal/state insect control programs (Grasshopper/Morman Cricket, Beet Leafhopper, or Boll Weevil Control Programs) and to pasture/ rangeland. Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (Dv 0.3 < 30 um) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 um). Directions from the equipment manufacturer or vendor, pesticide registrant or test facility using laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Thermal Aerosols or Fogs

For control of adult mosquitoes with thermal aerosols or fogs: Apply Malathion ULV at the rate of 3.9 to 5.2 gallons Malathion ULV in 100 gallons finished solution* by ground equipment delivering 40 gallons per hour at a vehicle speed of 5 miles per hour to treat a swath width of 300 feet (equivalent to 180 acres per hour). At 3.9 gallons of this product per 100 gallons of finished solution, this is equivalent to 0.08 pound active per acre. At 5.2 gallons per 100 gallons of finished solution, this is equivalent to 0.11 pound active per acre.

*There is a great variation in the chemical composition of fuel oils which may be used as thermal fog solvents. These differences may cause sludge and/or affect the solubility of the Malathion ULV.

Nonthermal Aerosols

Adult Mosquito Control – Control of adult mosquitoes over a 300 foot swath can be obtained with the non-thermal aerosols of Malathion ULV using the following rates at the indicated vehicle speeds:

Rates for Malathion ULV

Undiluted Apply as follows:

Lb AI/A	Appl	Application Rates Fl Oz/Min at Vehicle Speeds			
	5 mph	10 mph	15 mph	20 mph	FI Oz of Malathion ULV/A
0.03 to 0.06*	1.0 to 2.1	2.0 to 4.3	3.0 to 6.3	4.0 to 8.6	0.38 to 0.75

^{*}Use higher rate of application when vegetation is dense and/or mosquito populations are heavy.

OPERATING EQUIPMENT

Each nonthermal aerosol generator used for dispersal of Malathion ULV to control adult mosquitoes must have minimum capability of producing the droplet spectrum described under Ground-Based Application. The initial determination of droplet size is made after the unit is installed in a vehicle and prior to its use in mosquito con-troloperations. Recheck the unit frequently to insure that proper droplet size is maintained for each operation. Determination of droplet size every two months is usually sufficient if the unit has been maintained in good operating condition. Equipment manufacturer's instructions setting forth cleaning and maintenance of the unit must be followed. The unit must be inspected before each operation to correct any leaks or obstructions in the spray system; to detect whether the nozzle, hoses, or other parts are worn and need replacement; to insure that the flow meter is properly calibrated; and to determine that the pressure recommended by the manufacturer is being maintained.

Flow Rate - must be regulated by accurate flow meter.

-notgreaterthan1gallonperhourat5mph,2gallonsperhourat10mph,3gallonsperhourat15mph,or4gallonsperhourat20mph.

Nozzle Direction - rear of the vehicle.

- upward at an angle of 45° or more.

Vehicle Speed - not greater than 20 mph.

- shut off spray equipment when vehicle is stopped.

IMPORTANT – Spray droplets of undiluted MALATHION ULV will permanently damage automobile paint unless all the conditions described and recommended in this label are met. If accidental exposure does occur, the vehicle should be washed at once.

STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food, or feed by storage and disposal. Open dumping is prohib- ited. Do not reuse empty container. Do not store under conditions which might adversely affect the contain- er or its ability to function properly.

PESTICIDE STORAGE: Malathion ULV should be stored in the original unopened container in a secure, dry place. Do not contaminate with other pesticides or fertilizers. The product should never be heated above

55 °C (131 °F), and should not be stored for long periods of time at a temperature in excess of 25 °C

(77 °F). Keep container tightly closed when not in use. Reduce stacking height where local conditions can affect package strength.

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying.

Containers equal to or less than 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the contain- er1/4 full with water and recap. 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 pro- cedure two more times.

Containers greater than 5 gallons or 50 pounds: Triple rinse as follows: Empty the remaining contents into application equipment or a mixtank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its end and roll it 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.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. The buyer or user of this product assumes all such inherent risks.

Subject to the foregoing inherent risks, LOVELAND PRODUCTS, INC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THIS PRODUCT IS SOLD "AS IS," AND LOVELAND PRODUCTS, INC. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ELIGIBILITY OF THIS PRODUCT FOR ANY PARTICULAR TRADE USAGE.

IN THE UNLIKELY EVENT THAT BUYER OR USER BELIEVES THAT LOVELAND PRODUCTS, INC. HAS BREACHED A WARRANTY CONTAINED IN THIS LABEL AND TO THE EXTENT REQUIRED BY APPLICABLE LAW, BUYER OR USER MUST SEND WRITTEN NOTICE OF ITS CLAIM TO THE FOLLOWING ADDRESS: LOVELAND PRODUCTS, INC., ATTENTION: LAW DEPARTMENT, P.O. BOX 1286, GREELEY, CO 80632-1286.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE BUYER'S OR USER'S EXCLUSIVE REMEDY FOR ANY INJURY, LOSS, OR DAMAGE RESULTING FROM THE HANDLING OR USE OF THIS PRODUCT, INCLUD- ING BUT NOT LIMITED TO CLAIMS OF BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, STRICT LIA- BILITY, OR OTHER TORTS, SHALL BE LIMITED TO ONE OF THE FOLLOWING, AT THE ELECTION OF LOVE- LAND PRODUCTS, INC. OR THE SELLER: DIRECT DAMAGES NOT EXCEEDING THE PURCHASE PRICE OF THE PRODUCT OR REPLACEMENT OF THE PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, LOVELAND PRODUCTS, INC. AND THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR USER OF THIS PRODUCT FOR ANY CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES, OR DAMAGES IN THE NATURE OF A PENALTY.

FORMULATED FOR LOVELAND PRODUCTS, INC.
P.O. BOX 1286, GREELEY, COLORADO 80632-1286

[EPA Approval Date]