2016-1304
2016-08-31

GROUP	1B	INSECTICIDE

BASE

LAGON® 480 E

INSECTICIDE

COMMERCIAL

This product is not to be used in and around homes or other residential areas such as parks, school grounds, playing fields. It is not for use by homeowners or other uncertified users.

WARNING POISON

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

ACTIVE INGREDIENT: Dimethoate 480 g/L

REGISTRATION NO. 9382 PEST CONTROL PRODUCTS ACT

IN CASE OF EMERGENCY DUE TO A MAJOR SPILL, FIRE OR POISONING INVOLVING THIS PRODUCT CALL DAY OR NIGHT, 1-800-561-8273

LOVELAND PRODUCTS CANADA INC.
789 Donnybrook Drive
Dorchester, ON
N0L 1G5
1-800-328-4678

NET CONTENTS: 1 L – 115 L

1/16

GROUP	1B	INSECTICIDE

FRONT

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PRECAUTIONS
HARMFUL OR FATAL IF SWALLOWED, INHALED OR ABSORBED THROUGH THE SKIN
KEEP OUT OF REACH OF CHILDREN

Keep the following personal protective equipment immediately available for use in case of emergency (for example, a broken package, spill, or equipment breakdown): chemical-resistant coveralls, chemical-resistant gloves, chemical-resistant head gear and a respirator.

Not for use in greenhouses.

This product is not to be used around homes or other residential areas such as parks, school grounds and/or playing fields. It is not for use by homeowners or other uncertified users.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

Avoid breathing vapour or spray mist. Use only with adequate ventilation. Do not use indoors. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling and before eating and smoking. Avoid contamination of feed and food stuffs. Keep away from heat, sparks and open flame.

Do not use in milk processing or storage rooms. Remove livestock and poultry from buildings when spraying. Do not contaminate feed troughs, litter or drinking fountains. Do not use indoors. Do not mix with whitewash or apply within 2 weeks of whitewashing. Keep out of sun.

When spraying honey-producing crops (alfalfa, red clover, sweet clover and alsike) spray at least 5 days before bloom appears and do not introduce hives until full bloom. Hives should be removed from vicinity before making spray applications. If spraying must be done during the blooming period, restrict application to the period after dark or very early morning in order to reduce mortality to bees that may be visiting the blooms.

This product is toxic to birds and wildlife. To reduce injury to bees, restrict application to the period after dark when bees are inside the hives or in the early morning before the bees are foraging in the fields. Do not apply to such crops as alfalfa when in full bloom.

This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. Do not contaminate these systems through direct application, disposal of waste or cleaning equipment.

Ship and store between 4° and 30° C.
If this pest control product is to be used on a commodity that may be exported and you require information regarding Maximum Residue Limits for an importing country, please contact LOVELAND PRODUCTS CANADA INC.

Engineering Controls and Personal Protective Equipment:
A. Mixing/loading liquids (for all uses except forestry):
Wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves, goggles or a face shield and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH approved canister approved for pesticides.

B. Mixing/loading liquids (forestry: hemlock, spruce and balsam fir):
Use a closed system for aerial mixing/loading for forestry use (hemlock, spruce and balsam fir). Wear cotton coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves, goggles or a face shield.

C. Mixing/loading liquids (forestry: Douglas fir (seed tree), Sitka spruce (seed tree), spruce (seed tree and woodland)):
During mixing, loading, clean-up and repair, wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves, goggles or a face shield and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH/MSHA/MHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH/MSHA/BHSE approved canister approved for pesticides.

D. Applying by air:
Wear cotton coveralls over long pants, and a long-sleeved shirt, shoes, plus socks.

E. Applying by groundboom:
During groundboom application use a closed cab that provides both a physical barrier and respiratory protection (for example, dust/mist filtering and/or vapour/gas purification system). The closed cab must have a chemical resistant barrier that totally surrounds the occupant and prevents contact with pesticides outside the cab. Wear cotton coveralls over long

pants and a long-sleeved shirt, chemical resistant footwear plus socks. Chemical resistant gloves are not required to be worn while driving closed cab equipment but are required for clean-up and repair activities.

F. Applying by airblast:
During airblast application use a closed cab that provides both a physical barrier and respiratory protection (for example, dust/mist filtering and/or vapour/gas purification system). The closed cab must have a chemical resistant barrier that totally surrounds the occupant and prevents contact with pesticides outside the cab. Wear cotton coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks. Chemical resistant gloves are not required to be worn while driving closed cab equipment but are required for clean-up and repair activities.
If a closed cab is not feasible, wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves and chemical-resistant headgear. Chemical resistant headgear includes so'westers, or large brimmed, water-proof hats, and hoods with sufficient neck protection. Avoid touching face or other unprotected parts of the body during application.

G. Applying by handheld equipment:
Wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH/MSHA/MHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH/MSHA/BHSE approved canister approved for pesticides. Limit the amount of active ingredient handled per day to 2.8 kg per person (for example, approximately 2950 L at a rate of 0.96 g a.i./L) when applying by handheld equipment.

H. Applying by manually-pressurized handwand or backpack (Douglas fir (seed tree), Sitka spruce (seed tree), spruce (seed tree and woodland)):
During manually-pressurized handwand, or backpack application, wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH/MSHA/MHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides OR a NIOSH/MSHA/BHSE approved canister approved for pesticides.
DO NOT apply using mechanically-pressurized handgun equipment. Only for use with manually-pressurized hand wands or backpack sprayers.

I. Applying by right-of-way sprayer:
During mixing, loading, application, clean-up and repair, wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical-resistant gloves, goggles or a face shield.

J. Applying by soil drench, soil injection or chemigation:
Wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH/MSHA/MHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH/MSHA/BHSE approved canister approved for pesticides.

ENVIRONMENTAL PRECAUTIONS:
TOXIC to bees. Bees may be exposed through direct spray, spray drift, and residues on leaves, pollen and nectar in flowering crops and weeds. Minimize spray drift to reduce harmful effects on bees in habitats close to the application site. Avoid applications when bees are foraging in the treatment area in groundcover containing blooming weeds. To further minimize exposure to pollinators, refer to the complete guidance "Protecting Pollinators during Pesticide Spraying – Best Management Practices" on the Health Canada website (www.healthcanada.gc.ca/pollinators). Follow crop specific directions for application timing.
For applications on crops that are highly attractive to pollinators (alfalfa, clovers, canola, safflower, blueberries, cherries, peaches, pears, asparagus, and outdoor ornamentals excluding coniferous evergreens), or when using managed bees for pollination services:
DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.
For applications on all other crops:
Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging.
TOXIC to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland.
TOXIC to birds, mammals and aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE.
To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to: heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (for example, soils that are compacted or fine textured such as clay).
Avoid application of this product when heavy rain is forecast.
Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.
DECONTAMINATION
If accidental spillage of LAGON 480 E Insecticide should occur, scrub contaminated area immediately with a strong laundry soap solution or use household lye. Detergents are not satisfactory for this purpose. Repeated scrubbings are necessary on plain wood surfaces. Avoid spillage on all types of floor tile or linoleum.

FIRST AID
IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre 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 eye. Call a poison control centre or doctor for treatment advice.
IF SWALLOWED: Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible. Call a poison control centre or doctor for treatment advice.
Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION
Dimethoate is an organophosphate that is a cholinesterase inhibitor. Typical symptoms of overexposure to cholinesterase inhibitors include headache, nausea, dizziness, sweating, salivation, and runny nose and eyes. This may progress to muscle twitching, weakness, tremor, incoordination, vomiting, abdominal cramps and diarrhea in more serious poisonings. A life-threatening poisoning is signified by loss of consciousness, incontinence, convulsions and respiratory depression with a secondary cardiovascular component. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate degree of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as pralidoxime chloride, may be therapeutic if used early; however, use only in conjunction with atropine. In cases of severe acute poisoning, use antidotes immediately after establishing an open airway and respiration. With oral exposure, the decision of whether to induce vomiting or not should be made by an attending physician. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. Treat symptomatically.

STORAGE
Do not use, pour, spill, or store near heat, sparks, or open flame. Keep out of direct sunlight. Ship and store between 4°C and 30°C.

DISPOSAL
1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on this label. It is an offence under the *PEST CONTROL PRODUCTS ACT* to use this product in a way that is inconsistent with the directions on the label.

GROUP	1B	INSECTICIDE

DATAPAK

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Do not use in milk processing or storage rooms. Remove livestock and poultry from buildings when spraying. Do not contaminate feed troughs, litter or drinking fountains. Do not use indoors. Do not mix with whitewash or apply within 2 weeks of whitewashing. Keep out of sun.

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F. Applying by airblast:
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If a closed cab is not feasible, wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves and chemical-resistant headgear. Chemical resistant headgear includes so'westers, or large brimmed, water-proof hats, and hoods with sufficient neck protection. Avoid touching face or other unprotected parts of the body during application.

G. Applying by handheld equipment:
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H. Applying by manually-pressurized handwand or backpack (Douglas fir (seed tree), Sitka spruce (seed tree), spruce (seed tree and woodland)):
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I. Applying by right-of-way sprayer:
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J. Applying by soil drench, soil injection or chemigation:
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ENVIRONMENTAL PRECAUTIONS:
TOXIC to bees. Bees may be exposed through direct spray, spray drift, and residues on leaves, pollen and nectar in flowering crops and weeds. Minimize spray drift to reduce harmful effects on bees in habitats close to the application site. Avoid applications when bees are foraging in the treatment area in groundcover containing blooming weeds. To further minimize exposure to pollinators, refer to the complete guidance "Protecting Pollinators during Pesticide Spraying – Best Management Practices" on the Health Canada website (www.healthcanada.gc.ca/pollinators). Follow crop specific directions for application timing.
For applications on crops that are highly attractive to pollinators (alfalfa, clovers, canola, safflower, blueberries, cherries, peaches, pears, asparagus, and outdoor ornamentals excluding coniferous evergreens), or when using managed bees for pollination services:
DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.
For applications on all other crops:
Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging.
TOXIC to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland.
TOXIC to birds, mammals and aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE.
To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to: heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (for example, soils that are compacted or fine textured such as clay).
Avoid application of this product when heavy rain is forecast.
Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

DIRECTIONS FOR USE
Lagon 480E INSECTICIDE is a true systemic insecticide. A systemic insecticide is absorbed into the system of the plant upon application and, as with all systemic materials, may in specific plants cause reactions which are neither predictable nor common to all members of the species.

LAGON 480 E Insecticide is generally effective in controlling aphids, and other listed insects, scales and mites.
LAGON 480 E Insecticide may be applied by spray or soil drench. LAGON 480 E Insecticide is an emulsifiable concentrate. Use designated amounts in full volume of water.
Buffer zones:
Use of the following spray methods or equipment DO NOT require a buffer zone: hand-held or backpack sprayer, or spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Crop		Buffer Zones (metres) Required for the Protection of:			
			Freshwater habitat of Depth:		Estuarine/Marine habitats of Depth:	
			Less than 1m	Greater than 1m	Less than 1m	Greater than 1m
Field Sprayer*	Cereals, wheat, forage crops, strawberries, vegetables, asparagus, potatoes, tomatoes, flax, clover, highbush blueberry		1	1	2	1
	Flowering plants		3	1	4	2
Airblast	Christmas trees, ornamentals	Early growth stage	10	4	15	5
		Late growth stage	5	2	5	3
	Fruit trees	Early growth stage	15	10	20	10
		Late growth stage	10	4	10	5
	Woodland	Early growth stage	30	20	30	25
		Late growth stage	20	10	25	15
	Sitka spruce	Early growth stage	35	25	40	30
		Late growth stage	25	20	30	20
Aerial	flax	Fixed wing	1	0	1	0
		Rotary wing	1	0	1	0
	Cereals, forage crops, wheat	Fixed wing	5	1	10	1
		Rotary wing	4	1	10	1
	clover	Fixed wing	10	1	15	1
		Rotary wing	5	1	10	1
	Shrubs and trees	Fixed wing	35	1	50	5
		Rotary wing	20	1	30	5
	Forestry (hemlock, spruce, balsam fir)	Fixed wing	90	1	150	15
		Rotary wing	55	1	90	2

*For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, please note that LAGON 480 E Insecticide contains a Group 1B insecticide/acaricide. Any insect/mite population may contain individuals naturally resistant to LAGON 480 E Insecticide and other Group 1B insecticide/acaricide. The resistant individuals may dominate the insect/mite population if this group of insecticides/acaricides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay insecticide/acaricide resistance:

- Where possible, rotate the use of LAGON 480 E Insecticide or other Group 1B insecticides/acaricides with different groups that control the same pests.
- Avoid application of more than the indicated number of sprays of LAGON 480 E Insecticide or other insecticides/acaricides in the same group in a season.
- Use tank mixtures with insecticides/acaricides from a different group when such use is permitted.
- Insecticide/acaricide use should be based on an IPM program that includes scouting, record keeping and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.
- 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 and to report suspected resistance, contact the Technical Service, Loveland Products Canada Inc., 1-800-328-4678 or at www.uap.ca.

FOR GROUND APPLICATION: dilute with water to 200 - 300 L/ha unless otherwise stated.
FOR AERIAL APPLICATION: unless otherwise stated, dilute with water to 11 - 22 L/ha for blueberries, cereals (barley, oats, wheat, rye) and peas. Dilute with water to 10-30 L/ha for other field and vegetable crops when aerial application is specified.

AERIAL APPLICATION INSTRUCTIONS
Use only where aerial application is indicated on this label.
Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.
Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product.
Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.
Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.
Apply only under conditions of good practice specific to aerial application as outlined in the National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

Use Precautions
Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage.
Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas.
Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Use low nozzle pressure (Below 300 kPa). Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray in winds exceeding 10 - 15 km per hour. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat. Do not allow spray drift onto sensitive areas such as water, urban and residential areas.

Operator Precautions
Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.
It is desirable that the pilot have communication capabilities at each treatment site at the time of application.
The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the label recommendations on the existing ground boom label.
All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.
Field sprayer application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) fine classification. Boom height must be 60 cm or less above the crop or ground.

Airblast application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT direct spray above plants to be treated.

Turn off outward pointing nozzles at row ends, and outer rows. DO NOT apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

Aerial application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply when wind speed is greater than 16 km/h at the application site as measured from a height of two metres off the ground. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) fine classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length MUST NOT exceed 65% of the wing- or rotorspan.

Product Specific Precautions
If you have questions, call the manufacturer at 1-800-328-4678 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

Volume: Apply the recommended rate in a minimum spray volume of 10 litres per hectare unless otherwise stated.

FIELD AND VEGETABLE CROPS:
Sprays should be applied when the pests first appear and repeated as the infestation warrants, or as otherwise directed. Applications should be made in sufficient water to obtain good coverage. Apply at the recommended rate; do not exceed a maximum spray volume of 1000 L per hectare unless otherwise stated. When aerial application is specified apply with aerial equipment and use 10 to 30L of water per hectare. Applications may be made by ground equipment unless otherwise specified.

FIELD AND VEGETABLE CROPS	PESTS CONTROLLED	AMOUNT PER HECTARE	AMOUNT PER 10 LITRES	PREHARVEST INTERVALS (DAYS)	MAXIMUM # OF APPLICATIONS PER YEAR
Alfalfa (for seed and forage production)	Aphids,Leafhoppers reduction of alfalfa weevil larvae	425 mL	4 mL	10	2
	COMMENTS: Do not graze or harvest for forage within 10 days after application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.				
	Blotch leafminers	550 mL	5 mL	10	1
	COMMENTS: Use a water volume of at least 200 L/ha with ground equipment for Blotch leafminers. Do not apply during bloom. May be applied by Ground and Aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.				
	Grasshoppers - nymphs	550 mL	5 mL	10	1
	Grasshoppers -adults or winged	850 - 900 mL	9 mL	10	2
	COMMENTS: Follow provincial forecast. Apply when insects are present as young hoppers or signs of insect damage are evident. Apply when the grasshoppers are in the 2-4 nymphal stage. Best control will be achieved when application is made prior to wing development. Under severe insect pressure application should also be made to a 15 metre strip along fence rows around the field. DO NOT APPLY TO ADJACENT UNREGISTERED CROPS. The higher rate should be used when the proportion of mature and late nymphal stages in the population are high and spray penetration is inhibited by dense crop canopy. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.				
Alfalfa (seed production)	Lygus bugs Plant bugs	1.1 L	10 mL	28	1
	COMMENTS: Apply just before alfalfa begins to bloom. Allow at least 10 days before placing leaf cutting bees in the field. Do not graze or harvest for forage with 28 days after treatment. May be applied by Ground and Aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.				
Asparagus	Asparagus aphid	2.3 L	35 mL	Not Applicable	2
	COMMENTS: Ground Application: Apply by boom or field sprayer using 675 L of water/ha. For mature asparagus, sprays should begin July 1, after crop has been harvested, and continue at 3-4 week intervals until defoliation in October. Dimethoate should be applied postharvest only, but if applied on immature asparagus do not harvest for feed or food.. For immature asparagus, begin application mid-May. Ground application ONLY. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.				
Barley, Oats, Wheat (ALSO SEE CEREALS below)	Thrips	1 L	10 mL	35	2
	COMMENTS: Ground Application: Use sufficient water to obtain good coverage (usually 110 – 275 L/ha). Same limitations apply for harvesting and grazing as in wheat section of this label. Ground and Aerial application. With aerial equipment use 10 to 30 L of water per hectare. Minimum application interval is 7 days. All activities: REI is 12 hours. Pre-grazing Interval (PGI): 14 days.				
Beans (Pole, Snap)	Aphids Grasshoppers Leafhoppers Leafminers Mexican bean beetles	700 mL - 1 L	7 - 10 mL	7	2

	Mites, Lygus bugs Tarnished plant bugs				
	COMMENTS: Use sufficient water for good coverage. Repeat applications as necessary. Do not feed or graze treated foliage to livestock. May be applied by Ground and Aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Beets	Tarnished plant bugs	700 mL	7 mL	12	2
	COMMENTS: Ground application ONLY. Minimum application interval is 7 days. All activities: REI is 3 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period				
Cauliflower Broccoli Brussels Sprouts	Aphids	700 mL - 1 L	7 - 10 mL	7 Broccoli Cauliflower 21 Brussels Sprouts	2
	COMMENTS: To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming periodUse sufficient water for good coverage. Repeat applications as necessary. Ground Application ONLY. Minimum application interval is 7 days. For Broccoli and cauliflower, all activities: REI is 5 days. For Brussels sprouts, all activities: REI is 2 days.				
Cauliflower Broccoli	Thrips	550 mL - 1.25 L	6 - 12 mL	7	2
	To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming periodApply at7 day intervals starting at head formation. Ground Application ONLY. Minimum application interval is 7 days. All activities: REI is 5 days.				
Canary Grass (Grown for seed)	Aphids	500 mL	5 mL	21	2
	COMMENTS: Apply in aerial or ground application when there are more than 50 aphids per canary seed head between heading and soft dough stage. May be applied by Ground and Aerial application. May be applied a maximum of 2 times per year. Minimum application interval is 30 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Canola (rape)	Aphids Leafhoppers Grasshoppers	850 - 900 mL	9 mL	21	2
	COMMENTS: May be applied by ground and aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.				
Celery	Aphids-including carrot green peach foxglove aphids	700 mL	7 mL	7	2
	COMMENTS: Begin application 3 weeks after transplanting. Ground application ONLY. Minimum application interval is 7 days. All Activities, REI is 3 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during				

	the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Cereals (barley, oats, wheat, rye)	Grasshoppers -nymphs, Say stink bugs	550 mL	5 mL	35	2
	Grasshoppers -adults	850 mL - 1 L	See comments		2
	COMMENTS: Do not graze or harvest for forage within 14 days after treatment at the 850 mL rate. Do not graze or harvest for forage within 28 days after treatment at the 1 L rate. Follow provincial forecast. Apply when the grasshoppers are in the 2-4 nymphal stage. Best control will be achieved when application is made prior to wing development. Under severe insect pressure application should also be made to a 15 metre strip along fence rows around the field. DO NOT APPLY TO ADJACENT UNREGISTERED CROPS. The higher rate should be used when the proportion of mature and late nymphal stages in the population are high and spray penetration is inhibited by dense crop canopy. May be applied by Ground and Aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours.				
Chicory, Chinese Broccoli Bok Choi	Aphids	600 mL - 1 L	6 - 10 mL	7	2
	COMMENTS: Apply in sufficient water for thorough coverage. Use ground application to foliage. Apply when aphids are present. Ground application ONLY. Minimum application interval is 7 days. All activities: REI is 4 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Eggplant	Tarnished plant bug	500 - 700 mL	5-7 mL	7	2
	COMMENTS: Apply when bugs are found and flowering is seen. Treat again in 7-10 days if bugs are found. Consult local authorities for proper timing. Do not apply when bees are foraging. Ground application ONLY. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Flax	Potato Aphid	427 mL	4 mL	21	1
	COMMENTS: Apply from late flowering to early green bole stage; in sufficient water to provide good coverage. May be applied by either ground or aerial methods. Use in 200 L/ha of water for ground and 11 - 22 L of water/ha for aerial equipment. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Forage crops (grasses, alfalfa, hay, clover)	Aphids (Only suppression of Russian Wheat aphid is provided)	425 - 550 mL	4 - 5 mL	2	2
	Grasshoppers-				
	low infestations	425 – 550 mL		2	2
	nymphs	550 mL		2	2
	adults	850 mL – 1L		28	2
	Lygus Bug	425 mL		2	2
	Plant Bug	425 mL		2	2
	COMMENTS: TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms. Do not graze or harvest for forage within 2 days after treatment at the 425 or 550 mL rate. Do not graze or harvest for forage within 28 days after treatment at the 850 mL – 1 L rate. May be applied by either ground or aerial methods. Minimum application interval is 7 days. All activities: REI is 12 hours.				
Leafy Vegetables: Lettuce, Swiss chard,	Aphids Leafhoppers	700 mL	7 mL	14	2

Beet greens and Turnip greens	COMMENTS: Ground application ONLY. Use sufficient water for good coverage. Do not use on Head Lettuce. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period. Minimum application interval is 7 days. Beet Greens, Turnip Greens and Lettuce: All Activities, REI is 3 days.				
Kale	Aphids Leafhoppers	700 mL	7 mL	14	2
	COMMENTS: Ground application ONLY. Use sufficient water for good coverage. May be applied a maximum of 2 times per year. Minimum application interval is 15 days. Interval between last application and harvest: 14 days. All Activities, REI is 3 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Peas (canning & field)	Aphids	275 - 380 mL	2.5 - 3.6 mL	3	2
	COMMENTS: Apply by aircraft or by ground equipment. Use sufficient water for good coverage. Repeat application as necessary. Do not feed or graze for forage within 21 days after last application. Dilute for ground (100-300 L of water/ha) and aerial application (10-30 L of water/ha). Minimum application interval is 14 days. Maximum application rate is 0.18 kg a.i./ha. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Peppers	Aphids, Maggots	700 mL - 1L	7 - 10 mL	3	2
	COMMENTS: Use sufficient water for good coverage. Repeat application as necessary. Ground application ONLY. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Potatoes, Tomatoes (field)	Aphids Leafhoppers Tarnished plant bugs	550 mL - 1.0 L	5 - 9 mL	7	2
	COMMENTS: Use sufficient water for good coverage. Do not apply more than 2 applications per season. Consult local agricultural authorities for proper timing. Ground application ONLY. Minimum application interval is 7 days. Maximum application rate is 0.48 kg a.i./ha All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Pastures Wastelands	Grasshoppers -nymphs -adults	 550 mL 850 mL-1 L		 2 See Comments	 2
	COMMENTS: Follow provincial forecast. Apply when insects are present as young hoppers or signs of insect damage are evident. Apply when the grasshoppers are in the 2-4 nymphal stage. Best control will be achieved when application is made prior to wing development. Under severe insect pressure application should also be made to a 15 metre strip along fence rows around the field. DO NOT APPLY TO ADJACENT UNREGISTERED CROPS. The higher rate should be used when the proportion of mature and late nymphal stages in the population are high and spray penetration is inhibited by dense crop canopy. Use high rate for adult grasshopper control on wasteland. Remove cattle before spraying. Do not graze or harvest for forage within 2 days after treatment at the 550 mL rate. Do not graze or harvest for forage within 7 days after treatment at the 850 mL rate. Do not graze or harvest for forage within 28 days at the 1L rate. May be applied by ground and aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming				

	period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Safflower	Grasshoppers (nymphs and adults)	550 mL-1L		21	2
	COMMENTS: Apply when damage is apparent and more than 15 grasshoppers per square meter are found in the crop. Repeat the application only when necessary. Use sufficient water for good coverage. May be applied by ground and aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.				
Soybeans	Aphids bean beetles leafhoppers tarnished plant bugs, lygus bugs	0.7-1 L	7-10 mL	30	2
	COMMENTS: Use sufficient water for good coverage. Repeat applications as necessary. Do not exceed 3 applications per season. Do not feed or graze treated foliage to livestock. May be applied by Ground and Aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
	Spider mites (Two-spotted)	1 L	10 mL	30	2
	COMMENTS: Apply by ground application in sufficient water for thorough coverage. Do not feed or allow livestock to graze treated forage. May be applied by ground and aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Sweet Clover Red Clover Alsike Clover	Sweet clover weevil	850 mL - 1.1 L		28	2
	COMMENTS: Do not graze or harvest for forage within 28 days after treatment. May be applied by ground and aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.				
Wheat (ALSO SEE CEREALS above)	Orange wheat, blossom midge, Russian wheat aphid	1 L		21	2
	COMMENTS: If midge population persists at 3 - 7 days apply a second treatment. Use a water volume of at least 100 L/ha with ground equipment and 50 L/ha by air. Higher volume will provide more thorough coverage. If adult midges are present (1 midge/4-5 wheat heads), sprays should be applied when 25% of the wheat head has fully emerged from the boot but before flowering has begun. At this stage, wheat first becomes susceptible to attack by egg-laying females. Applications should be made in the late afternoon or evening when temperatures exceed 15°C and the wind speed is less than 10 km/h. Higher volume sprays will improve penetration of the crop. Proper timing of application is essential for control. Do not harvest within 21 days of the application. Do not apply to areas where bees are actively foraging or near apiaries as product is toxic to bees. Do not graze or use for forage within 7 days of application. Consult provincial authorities for further information concerning rates and time of application. . Minimum application interval is 7 days. All activities: REI is 12 hours.				

FRUIT CROPS:

APPLY WITH GROUND EQUIPMENT ONLY UNLESS OTHERWISE NOTED. FOR DILUTE GROUND APPLICATIONS, Apply at the recommended rate; do not exceed a maximum spray volume of 1000 L per hectare unless otherwise stated. . For Cherry, Peach

and Pear, the rate per hectare is based on using 3000 L of spray on full sized trees, 4.5-5.5 metres high, Apply at the recommended rate; do not exceed a maximum spray volume of 3000 L per hectare unless otherwise stated. Trees smaller or larger may require more or less LAGON 480 E. Follow provincial calendar guidelines as to water volumes for the size of tree being sprayed.

FRUIT TREE CROPS	PEST CONTROLLED	AMOUNT PER HECTARE	AMOUNT PER 10 L	AMOUNT PER 1000 L	PREHARVEST INTERVALS	MAXIMUM # OF APPLICATIONS PER YEAR
Pears	Tarnished plant bugs		6.25 mL	625 mL	28	2
	COMMENTS: Pears: Apply at pre-bloom. The minimum application interval is 10 days. Maximum rate 1.44 kg a.i./ha. Thinning: REI is 28 days. Hand harvesting, hand-line irrigation: REI is 17 days. All other activities: REI is 1 day. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.					
	Pear Psylla		10 – 12.5 mL	1 – 1.25 L	28	2
	COMMENTS: Use sufficient water for good cover spray. The minimum application interval is 10 days. Maximum application rate is 1.44 kg a.i./ha. Thinning: REI is 28 days. Hand harvesting, hand-line irrigation: REI is 17 days. All other activities: REI is 1 day. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.					
	Aphids		10 – 12.5 mL	1 – 1.25 L	28	2
	COMMENTS: Use sufficient water for good cover spray The minimum application interval is 10 days. Maximum application rate is 1.44 kg a.i./ha. Thinning: REI is 28 days. Hand harvesting, hand-line irrigation: REI is 17 days. All other activities: REI is 1 day. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.					
	Mites		10 – 12.5 mL	1 – 1.25 L	28	2
	COMMENTS: Use sufficient water for good cover spray The minimum application interval is 10 days. Maximum application rate is 1.44 kg a.i./ha. Thinning: REI is 28 days. Hand harvesting, hand-line irrigation: REI is 17 days. All other activities: REI is 1 day. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.					
Peaches (non-bearing)	Aphids, Mites		10 -15 mL	1 – 1.5 L	40	2
	Tarnished plant bugs	1.7 L	5 mL	500 mL	-40	2
	COMMENTS: Spray when insects first appear and repeat as necessary using sufficient water for good coverage. Some defoliation may occur under cold wet soil and/or slow drying conditions during and following application. Least injury has occurred when sprays were applied in the morning while temperatures are moderate and drying conditions are fairly good. The minimum application interval is 10 days. Thinning: REI is 32 days. Hand harvesting, hand-line irrigation: REI is 20 days. All other activities: REI is 3 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.					
Sour Cherries	Cherry fruit fly Maggots	2.25 L	5 mL	500 mL	21	2
	COMMENTS: Apply no later than 6 days after the first adult fly has been trapped and repeat in 14 days if required. Thinning: REI is 20 days. Hand harvesting, hand-line irrigation: REI is 9 days. All other activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.					
Sweet Cherries	Cherry fruit fly maggots	2.25 L	5 mL	500 mL	21	2
	COMMENTS: Apply no later than 6 days after the first adult fly has been trapped and repeat in 14 days if required. Thinning: REI is 20 days. Hand harvesting, hand-line irrigation: REI is 9 days. All other activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.					

SMALL FRUIT CROPS	PESTS CONTROLLED	AMOUNT PER HECTARE	AMOUNT PER 10 LITRES	AMOUNT PER 1000 LITRES	PREHARVEST INTERVALS (DAYS)	MAXIMUM # OF APPLICATIONS PER YEAR

Blueberry Lowbush Highbush	Blueberry maggot	580 – 830 mL 830 mL	6 – 8 mL		21	2
	COMMENTS: Apply pesticide in sufficient water for good coverage, one week after first berries ripen. Use no more than 1000 L spray/ha. Make 1 or 2 applications between mid to late July. May vary depending on area and season. May be applied with ground equipment or aerial equipment. Hand harvesting (high bush): REI is 9 days. Hand harvesting (low bush) and all other activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.					
Strawberries (bearing)	Tarnished plant bug	2.75 L	12.5 mL	1.25 L	7	2
	COMMENTS: Apply first spray when first blooms appear and the second application 10-12 days later if needed. May be applied a maximum of 2 times per year. Minimum application interval is 10 days. All Activities, REI is 2 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.					
Strawberries (bearing & non-bearing)	Aphids, mites	2.25 L	10 mL	1 L	7	2
	COMMENTS: Use sufficient water for good cover spray. Spray when insects first appear and repeat at monthly intervals as required. May be applied a maximum of 2 times per year. Minimum application interval is 10 days. All Activities, REI is 2 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.					

CROPS	**PEST**	**RATE PER HECTARE**	**REMARKS**
Filberts, Hazelnuts	Aphids	5L	Use one application per season. Apply when aphids appear. DO NOT USE WITHIN 45 DAYS OF HARVEST. Primarily for use on young plantings Thinning: REI is 34 days. Hand harvesting, hand-line irrigation: REI is 21 days. All other activities: REI is 5 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.

ORNAMENTALS

GENERAL COMMENTS ORNAMENTAL PLANTS

APPLY ONLY WITH GROUND APPLICATION EQUIPMENT

1. LAGON 480 E is a true systemic insecticide. A systemic insecticide is absorbed into the system of the plant upon application, and as with all systemic materials, may cause reactions in specific plants which are not predictable nor common to all members of the species. Do not over-dose or over-spray.
2. FOR PROPER TIMING of treatments for the control of specific pests on ornamental plants, consult local agricultural authorities. In general, apply adequate spray for good coverage when pests appear or when damage is first observed, unless otherwise indicated.
3. EXPERIENCE has shown when dealing with species that may be injured by foliar application, soil drenches are safer on those plants for which they are recommended. When using foliar sprays, do not apply during heat of the day or when temperatures are excessively high.
4. DO NOT USE on ornamental plants not listed.

5. WHEN IN DOUBT about plant safety, it is advisable to spray a single branch or dip several leaves in the spray solution. A waiting period of 3 or 4 days will usually indicate if plant damage will result.
6. DO NOT SPRAY the following species unless you have tested single branches or leaves to ascertain safety:
   American Elm — Mop-head Elm
   Norway Maple — Mock Orange
   Sunburst Locust — Morraine Locust
   or other ornamentals not listed in this pamphlet.
7. There has been no report of damage by LAGON 480 E to any of the common evergreen species grown in Canada provided recommended rates have been followed.
8. Do not apply foliar spray during the heat of the day or when temperatures are exceedingly high.
9. Apply at the recommended rate; do not exceed a maximum spray volume of 1000 L per hectare unless otherwise stated.

OUTDOOR FLOWERING PLANTS	PESTS CONTROLLED	AMOUNTS PER 1000 L OF WATER	AMOUNTS PER 10 L OF WATER
Azaleas	Lace bugs, Leafminers, Mites Whiteflies	1 L	10 mL
	COMMENTS: The minimum application interval is 14 days. May b eapplied a maximum of 2 times per year. All Activities, REI is 2 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Camellias	Aphids, Mites, Camellia scales	1 L	10mL
	FOLIAR SPRAYS: Apply 2 sprays 6 weeks apart the first year followed by annual applications soon after first growth begins in the spring. The minimum application interval is 10 days. May be applied a maximum of 2 times per year. All Activities, REI is 2 days. SOIL DRENCH: Apply LAGON 480 E as a soil drench around the base of plants in early spring at the rate of 60 mL per 10 L of water per plant up to 2 metres tall. Increase this rate proportionately for larger plants. Soil drench: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Carnations	Aphids, Thrips, Mites	1 L	10 mL
	COMMENTS: All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section.		
~~TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period or~~ during the 5-day period before the crop blooms..			
Day Lilies	Aphids, Thrips	2 L	20 mL
	May be applied a maximum of 1 time per year. All activities: REI 7 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Euonymus	Aphids, Scales	2 L	20 mL
	COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Gardenias	Tea scales, White flies	1 L	10 mL
	COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Gerberas	Thrips	1 L	10 mL
	COMMENTS: May be applied a maximum of 1 time per year. All Activities, REI is 2 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming		

	period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Gladiolus	Aphids,Thrips	1 L	10 mL
	COMMENTS: May be applied a maximum of 1 time per year. All Activities, REI is 2 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Iris	Aphids, Iris Borers, Thrips	2 L	20 mL
	For borer control spray when new leaves are 12 to 15 cm tall. COMMENTS: May be applied a maximum of 1 time per year. All activities: REI is 7 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Poinsettias (outdoor plants)	Aphids, White flies, Mites, Mealy bugs	1 L	10 mL
	COMMENTS: May be applied a maximum of 1 time per year. All Activities, REI is 2 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Roses (outdoor plants)	Aphids, Leafhoppers, Mites, Thrips	1 L	10 mL
	Apply thoroughly during growing season in a spray. The minimum application interval is 10 days. May b eapplied a maximum of 2 times per year. All Activities, REI is 2 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		

OUTDOOR ORNAMENTALS AND CHRISTMAS TREES	**PESTS CONTROLLED**	**AMOUNTS PER 1000 L OF WATER**	**AMOUNTS PER 10 L OF WATER**
Christmas Trees: Balsam Fir, Spruce, Hemlock, Pine (Mugho, Red, Scots)	Aphids, mites, Scales, Spruce needle miners, Spruce budworms	1.5 L	15 mL
	COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. Thinning: REI is 18 days. Hand line irrigation: REI is 3 days. All other activities: 12 hours.		
	Bagworms, European pine shoot moths, Nantucket pine tip moths, Zimmerman pine moths	2 L	20 mL
	COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. Thinning: REI is 18 days. Hand line irrigation: REI is 3 days. All other activities: 12 hours.		
Arborvitae	Aphids, Bagworms, Mites	2 L	20 mL
	COMMENTS: The minimum application interval is 10 days. May be applied a maximum of 2 times per year. All activities: REI is 12 hours.		
Birch	Aphids, Birch Leafminers	500 mL	5 mL
	FOLIAR SPRAY: For leaf miners apply when leaves are expanded (about mid-May); repeat the last week in June. For all activities: REI is 12 hours. SOIL DRENCH: For full-season control LAGON 480 E may be used as a soil drench once in early May when the leaves start to open. Apply LAGON 480 E undiluted at a rate of 11 mL/cm of stem basal diameter (cumulative total of all stems) evenly into small shallow holes made with a sharp instrument at the dripline of the tree of clump. Close the holes with soil. Drench thoroughly with water		

	immediately so as to saturate the root system. One soil drench treatment in May should give control of birch leafminers for the complete season. Do not make more than one soil drench treatment per season. Soil drenches may not be effective on newly-transplanted birches where the root system is not well established. Some hybrid varieties eg: cutleaf and silver birch may be damaged by excessive amounts of LAGON. Therefore, apply no more than the recommended dosage. Soil drench: REI is 12 hours.		
	Birch Leafminers	500 mL	5 mL
COMMENTS: To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.			
Boxwood	Mites, Leafminers, Mealy bugs	1 L	10 mL
	COMMENTS: For leafminers, apply in spring when leafminer flies first appear or in early summer for control of larvae in the infested leaves. The minimum application interval is 14 days. May be applied a maximum of 2 times per year. Thinning: REI is 7 days. All other activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.		
Cedar	Mites	2 L	20 mL
	COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. Thinning: REI is 13 days. All other activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.		
Douglas Fir (seed tree)	Cone insects (cone or gall midges, cone moths, seed chalcids, scale midges). 2 L per 100 litres of water. Maximum rate 20 L of product (= 9.6 kg a.i.) per hectare. Application should be made when cones are at or near the pendant stage. Complete coverage of the cones and foliage in the cone-bearing area of the tree is important for satisfactory results. Maximum of two applications per year. Minimum application interval: 10 days Seed cone harvesting: 48 days REI. Scouting: 5 days REI. Grading, animal control, baiting: 1 day REI.		
Hemlock	Mites, Scales, Spruce needle miners Spruce budworms	1 L	10 mL
	COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. Thinning: REI is 13 days. All other activities: REI is 12 hours.		
Holly (English & American)	Mites, Soft Scale, Leafminers	1 L	10 mL
	COMMENTS: For leafminers apply in spring when leafminer flies first appear, or in early summer for the control of larvae in the infested leaves. The minimum application interval is 14 days. May be applied a maximum of 2 times per year. All activities: REI is 12 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.		
Juniper	Aphids, Bagworms, Midges, Mites	2 L	20 mL
	COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. All activities: REI is 12 hours.		
Larch	Cone Maggots, Seed Wasps	5 L	50 mL
	COMMENTS: One application per season; apply within 3 weeks after pollination; spray to runoff on foliage; ground hydraulic sprayer or mist sprayer. All Activities, REI is 1 day. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.		
Lilacs (Syringa spp.)	Leafminers	1.25 L	12.5 mL
	COMMENTS: Apply two sprays 6 weeks apart. Application should be made as soon as any signs of the leafminer appear, or, first application should be started in early June. The minimum application interval is 10 days. May be applied a maximum of 2 times per year. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.		
All activities: REI is 15 days.			
Oak	Golden oak scales	2 L	20 mL
	COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. Thinning: REI is 13 days. All other activities: 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.		

Pine (Mugho, Red, Scots)	Aphids, Bagworms, European pine shoot moths, Nantucket pine tip moths, Zimmerman pine moths	2 L	20 mL
	Red and black-headed pine sawfly larvae	1 L	10 mL
	COMMENTS: For pine shoot moths apply early in the spring and again in mid-June, thoroughly wetting branch tips. COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. Thinning: REI is 18 days. Hand line irrigation: REI is 3 days. All other activities: REI is 12 hours.		

Sitka spruce (seed tree): Sitka spruce weevils. 20.8 L per 1000 litres of water. Maximum rate 20.8 L of product (= 10 kg a.i.) per hectare. Thoroughly spray the terminal growth to the point of runoff at the time of egg laying (usually during the first half of May). Maximum two applications per year. Minimum application interval: 10 days. Seed cone harvesting: 49 days REI. Scouting: 5 days REI. Grading, animal control, baiting: 1 day REI.

Spruce (seed tree and woodland use): Seed and cone insects. 10.4 - 20.8 L per 1000 L water. Maximum rate 20.8 L of product (10 kg a.i) per hectare. Thoroughly spray cone-bearing portions of tree to point of runoff when strobili cones are closed, and turning, but before they reach the horizontal position. Contact your local forest pest control office for more information on timing, and spray application, as well as spruce species that may be treated. Maximum of one application per year. Minimum application interval: 10 days. Seed cone harvesting: 49 days REI. Scouting: 5 days REI. Hand pruning, staking, tying: 27 days REI. Grading, animal control, baiting: 2 days REI.

Taxus	Mites, Fletcher scale, Mealy bugs	2 L	20 mL
	COMMENTS: For Fletcher scale, spray at the end of June and again 2 days later when crawlers are moving. May be applied a maximum of 2 times per year. Minimum application interval is 14 days. All activities: REI is 12 hours.		

NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS:

The DIRECTIONS FOR USE for this product for the use described below were developed by persons other than Loveland Products Canada Inc. and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. Loveland Products Canada Inc. itself makes no representation or warranty with respect to performance (efficacy) and/or crop tolerance (phytotoxicity) claims for this product when used on the crop listed below.

Accordingly, the Buyer and User assume all risks related to performance and crop tolerance arising, and agree to hold Loveland Products Canada Inc. harmless from any claims based on efficacy and/or phytotoxicity in connection with the use described below.

Highbush Blueberry

Crop	**Pest**	**Rate per 1000 L water**	**Maximum No. of Applications**	**Reapplication Interval**
Highbush Blueberry	Spotted Wing Drosophila	830 mL	2	15 days
COMMENTS: Apply post-harvest only, to control spotted wing Drosophila (adults and larvae in fruit) that may otherwise infest adjacent crops. Timing varies, depending on variety of highbush blueberry. Foliar application only, using conventional ground application equipment. Use sufficient water volume to ensure thorough coverage, to a maximum of 1000 L/ha.				

RESTRICTED USES - FORESTRY USE

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on the label. It is an offence under the Pest Control Product Act to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.
CAUTION: Forest Pest Control - birds and other wildlife in treated area may be harmed.
Apply at the recommended rate; do not exceed a maximum spray volume of 1000 L per hectare unless otherwise stated.

RESTRICTED USE - AERIAL APPLICATION TREE	PESTS CONTROLLED	COMMENTS
Hemlock, Spruce, Balsam fir	Mites, Scales, Spruce needle miners, Spruce budworms	For aircraft application use 1.5 L of LAGON 480 E in 5-20 L of water/ha, applied as a uniform spray of fine droplets. Application should be made as soon as the larvae hatch. COMMENTS: May be applied a maximum of 1 time per year. Thinning: REI is 13 days. All other activities: REI is 12 hours.

NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS:

The DIRECTIONS FOR USE for this product for the use described below were developed by persons other than Loveland Products Canada Inc. and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. Loveland Products Canada Inc. itself makes no representation or warranty with respect to performance (efficacy) and/or crop tolerance (phytotoxicity) claims for this product when used on the crop listed below.

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ANNUAL CANARYGRASS

CROP	PEST	RATE PER HA	MAXIMUM NO. OF APPLICATIONS PER YEAR	PREHARVEST INTERVALS (DAYS)	AMOUNT PER 10 LITRES
Annual canarygrass	Aphids	500 mL	1	21	5 mL

COMMENTS: Apply in aerial or ground application when there are more than 50 aphids per canary seed head between heading and soft dough stage. May be applied by Ground and Aerial application.
May be applied a maximum of 1 time per year. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.
Annual canarygrass seeds can be harvested for human consumption.
Annual canarygrass grown for human consumption is not to be cut for feed or grazed.

DECONTAMINATION
If accidental spillage of LAGON 480 E Insecticide should occur, scrub contaminated area immediately with a strong laundry soap solution or use household lye. Detergents are not satisfactory for this purpose. Repeated scrubbings are necessary on plain wood surfaces. Avoid spillage on all types of floor tile or linoleum.

FIRST AID
IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre 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 eye. Call a poison control centre or doctor for treatment advice.
IF SWALLOWED: Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible. Call a poison control centre or doctor for treatment advice.
Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION
Dimethoate is an organophosphate that is a cholinesterase inhibitor. Typical symptoms of overexposure to cholinesterase inhibitors include headache, nausea, dizziness, sweating, salivation, and runny nose and eyes. This may progress to muscle twitching, weakness, tremor, incoordination, vomiting, abdominal cramps and diarrhea in more serious poisonings. A life-threatening poisoning is signified by loss of consciousness, incontinence, convulsions and respiratory depression with a secondary cardiovascular component. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate degree of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as pralidoxime chloride, may be therapeutic if used early; however, use only in conjunction with atropine. In cases of severe acute poisoning, use antidotes immediately after establishing an open airway and respiration. With oral exposure, the decision of whether to induce vomiting or not should be made by an attending physician. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. Treat symptomatically.

STORAGE
Do not use, pour, spill, or store near heat, sparks, or open flame. Keep out of direct sunlight. Ship and store between 4°C and 30°C.

DISPOSAL
6. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
7. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
8. Make the empty container unsuitable for further use.
9. Dispose of the container in accordance with provincial requirements.
10. For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on this label. It is an offence under the *PEST CONTROL PRODUCTS ACT* to use this product in a way that is inconsistent with the directions on the label.

SAFETY DATA SHEET

LAGON® 480 E PCP 9382

SDS NUMBER: 9382-18-LPI **SDS REVISIONS: FORMAT** **DATE OF ISSUE: 12/05/18** **SUPERSEDES: 09/12/15**

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL DAY OR NIGHT 1-800-561-8273 or CHEMTREC – DAY OR NIGHT 1 800-424-9300

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 PRODUCT IDENTIFIER:
TRADE NAME: **LAGON® 480 E INSECTICIDE**
1.2 RECOMMENDED USE: GROUP 1B INSECTICIDE
1.3 DISTRIBUTED BY:
LOVELAND PRODUCTS CANADA, INC.
789 DONNYBROOK DRIVE • DORCHESTER, ONTARIO N0L 1G5
1.4 24 Hour Emergency Phone: (Chemtrec): 1-800-424-9300 (Toll Free) - **Additional Emergency Phone** 1-800-561-8273
Loveland Technical Service: 1-800-328-4678
U.S. Coast Guard National Response Center: 1-800-424-8802

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Acute Toxicity – Oral	Category 3	H301
Eye Damage/Irritation	Category 2A	H319
Acute Toxicity – Dermal	Category 4	H312

2.2 Label elements

Signal word: DANGER

Hazard Statement:
H301 – Toxic if swallowed.
H319 – Causes serious eye irritation.
H312 – Harmful in contact with skin.

Precautionary Statement: (Prevention):
P264 – Wash face, hands and any exposed skin thoroughly after handling.
P270 – Do not eat, drink or smoke when using this product.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P210 – Keep away from flames and hot surfaces. – No smoking.

Precautionary Statement: (Response):
P301+P310: IF SWALLOWED: Immediately call a poison centre or doctor/physician if you feel unwell.
P321 – Specific treatment (see NOTE TO PHYSICIANS on the product label).
P330 – Rinse mouth.
P305+P351+P338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337+P313 – If eye irritation persists: Get medical advice/attention.
P302+P350: IF ON SKIN: Wash with plenty of soap and water.
P312 – Call a poison centre/doctor/physician if you feel unwell.
P362 – Take off contaminated clothing and wash it before reuse.
P370+P378 – In case of fire: Use medium appropriate to surrounding fire.

Precautionary Statement: (Storage):
P405 – Store locked up.
P403+P235 – Store in a well-ventilated place. Keep cool.

Precautionary Statement: (Disposal)
P501 – Dispose of contents/container to an approved waste disposal to an approved waste disposal facility.

2.3 Other hazards
None known.

3. COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances

3.2 Mixtures

Chemical Name:	CAS No.	Concentration [%]
Dimethoate	60-51-5	480 g.a.e./ L | 45.2
Cyclohexanone	108-84-1	38.00
Solvent Naphtha, Light Aromatic	64747-95-6	10.8

*Ingredients not specifically listed are non-hazardous or are to be considered proprietary or confidential business information

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

General Advice: Get medical attention if symptoms occur.

If swallowed: Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control centre or doctor. Do not give anything by mouth to an unconscious person.

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 eye. Call a poison control centre or doctor for treatment advice.

If on skin or clothing: Take of contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre 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 if possible. Call a poison control centre or doctor for further treatment advice.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Toxic if swallowed. This product may cause cholinesterase inhibition. Causes eye irritation. Harmful in contact with skin.

4.3 Immediate Medical Attention and Special Treatment

Treatment: This product contains petroleum distillates.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-561-8273

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

NOTES TO PHYSICIAN: This product is an organophosphate (cholinesterase-inhibiting) insecticide. Atropine is antidotal and should be administered only if symptoms of cholinesterase inhibition are present. In severe cases Pralidoxime chloride (2-PAM; PROTOPAM) may be given as an adjunct to atropine. Use according to label directions. Monitor serum and RBC cholinesterase. Morphine, theophylline, aminophylline, phenothiazines, reserpine, furosemide, or ethacrynic acid are contraindicated in organophosphates poisonings. Administer intravenous fluids cautiously, if needed, to correct dehydration. Symptoms of cholinesterase inhibition include headache, dizziness, blurred vision, weakness, nausea, cramps, diarrhea, discomfort in the chest, nervousness, sweating, miosis, tearing, salivation, pulmonary edema, incontrollable twitches, convulsions, coma, and loss of reflexes and sphincter control.

5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Use medium appropriate to surrounding fire. Foam, carbon dioxide (CO_2), dry chemical, soft stream or water fog only if necessary.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: Oxides of sulfur, phosphorus-containing compounds, carbon monoxide and other unknown hazardous materials may be formed.

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Special Protective Equipment for Firefighters: Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions: Avoid inhalation of vapours and spray mist and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing.

6.2 ENVIRONMENTAL PRECAUTIONS

Environmental Precautions: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark except as noted on appropriate labels. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

Methods for Clean-Up: Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. After removal flush contaminated area thoroughly with water.
Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to Remove residual contamination.
Never return spills to original containers for re-use.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe Handling: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing 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.

7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers: Do not use, pour, spill or store near heat, sparks or open flame. Keep out of direct sunlight. Ship and store between 4 °C and 30 °C and mixed thoroughly before using. Do not contaminate water, food or feed by storage or disposal

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

OCCUPATIONAL EXPOSURE LIMITS

U.S. Workplace Exposure Level (ACGIH) TLVs

Components	Type	Value
Cyclohexanone	TWA	20 ppm (Skin)
Cyclohexanone	STEL	50 ppm (Skin)
1,2-4 Trimethylbenzene	TWA	25 ppm

U.S. Workplace Exposure Level (OSHA) PELs

Components	Type	Value
Cyclohexanone	TWA	50 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Specimen
No listings		

8.2 EXPOSURE CONTROLS:

Engineering Measures

Use only outdoors or in a well-ventilated area.

Individual Protection Measures:

Eye / Face Protection: Goggles or shielded safety glasses are recommended.

Skin Protection: Long-sleeved shirt and long pants. Shoes plus socks. Chemical-resistant gloves. Rinse gloves before removal.

Respiratory Protection: Not normally required. If respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection standard.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE : Liquid
ODOUR: Solvent and mild mercaptan.
ODOUR THRESHOLD: No data available.
COLOUR: Light amber to yellow.
pH: 3.59 (5% solution)
MELTING POINT / FREEZING POINT: No data available
BOILING POINT: No data available
FLASH POINT: 44 °C (TCC).
FLAMMABILILITY (solid, gas): No data available.
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available.
VAPOUR PRESSURE: No data available.
SOLUBILITY: Emulsifies.
PARTITION CO-EFFICIENT, n-OCTANOL / WATER: Log K_{ow} 0.704 (Dimethoate technical).
AUTO-IGNITION TEMPERATURE: No data available.
DECOMPOSITION TEMPERATURE: No data available.
VISCOSITY: No data available.
SPECIFIC GRAVITY (Water = 1): 1.08 g/ml
DENSITY: 1.08 kg/L

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

10.1 REACTIVITY
Stable
10.2 CHEMICAL STABILITY
Stable under normal temperature conditions
10.3 POSSIBILITY OF HAZARDOUS REACTIONS
No data available. Will not polymerize.
10.4 CONDITIONS TO AVOID
Excessive heat. Do not store near heat or flame.
10.5 INCOMPATIBILE MATERIALS
Avoid contact with strong acidic agents, basic or oxidizing agents.
10.6 HAZARDOUS DECOMPOSITION PRODUCTS
Oxides of sulfur, phosphorus-containing compounds, carbon monoxide and other unknown hazardous materials may be formed.

11 TOXICOLOGICAL INFORMATION

11.3 LIKELY ROUTES OF EXPOSURE
Ingestion. Eye contact. Skin absorption. Skin contact.
LC_{50} (rat): > 5.34 mg/L (4 HR)
LD_{50} Oral (rat): 425 mg/kg
LD_{50} Dermal (rabbit): 2,020 mg/kg
Acute Toxicity Estimates: No data available
Skin Irritation (rabbit): Slight irritation.
Eye Irritation (rabbit): Causes substantial but temporary eye injury.
Specific Target Organ Toxicity: Skin, CNS, liver, kidneys.
Aspiration: No data available.
Skin Sensitization (guinea pig): Not a sensitizer
Carcinogenicity: IARC Group 2B (Possible Human Carcinogen)
Germ Cell Mutagenicity: No data available.
Interactive Effects: None known

12 ECOLOGICAL INFORMATION

12.3 ECOTOXICITY
The product may be toxic to fish and aquatic invertebrates. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Information below is based on the technical ingredient Dimethoate.
Ecotoxicological Data

	Species	Test Results
Dimethoate	Rainbow trout	30.2 mg/L – 96-hour LC_{50}
	Daphnia magna	2.0 mg/L – 48-hour EC_{50}
	Bees	0.15 µ/bee – Oral LD_{50}
	Bees	0.10 µ/bee – Contact LD_{50}

Drift or runoff may adversely affect non-target plants.
Do not apply directly to water.
Do not contaminate water when disposing of equipment wash water.
Do not apply when weather conditions favor drift from target area.

12.2 PERSISTENCE AND DEGRADABILITY
Biodegradability: Dimethoate is biodegradable. Undergoes rapid degradation in the environment.
12.3 BIOACCUMULATIVE POTENTIAL
Bioaccumulation: Does not occur.
12.4 MOBILITY IN SOIL
Potential mobility in soil but is relatively unstable.
12.5 OTHER ADVERSE EFFECTS
Assessment: No data available.

13 DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

For recyclable containers: DO NOT reuse the container for any other purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site: Triple-or pressure-rinse the empty container. Dispose of rinsate in accordance with provincial requirements. Make the rinsed container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For refillable containers: For disposal, the container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse the product container for any other purpose

14 TRANSPORT INFORMATION

14.3 LAND TRANSPORT

TDG Shipping Description: UN3017, ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE, (DIMETHOATE, CYCLOHEXANONE) 6.1, (3), III
DOT Shipping Description: RQ UN3017, ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE, (DIMETHOATE, CYCLOHEXANONE) 6.1, (3), III ERG GUIDE 131
U.S. Surface Freight Classification: INSECTICIDES OR FUNGICIDES, INSECT OR ANIMAL REPELLENTS, NOI, OR VERMIN EXTERMINATORS, ANIMAL OR POULTRY, NOI; POISON (NMFC 102100; CLASS 77.5)

15 REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

NFPA & HMIS Hazard Ratings:

NFPA				HMIS	
2	Health	0	Least	2	Health
2	Flammability	1	Slight	2	Flammability
1	Instability	2	Moderate	1	Reactivity
		3	High	I	PPE
		4	Severe		

SARA Hazard Notification/Reporting
SARA Title III Hazard Category:

Immediate	Y	Fire	Y	Sudden Release of Pressure	N
Delayed	Y	Reactive	N		

Reportable Quantity (RQ) under U.S. CERCLA: Dimethoate (CAS: 60-51-5): 10 pounds; Cyclohexanone (CAS: 108-94-1) 5000 pounds.
SARA, Title III, Section 313: Dimethoate (CAS: 60-51-5) 45.2%; 1,2,4 Trimethylbenzene (CAS: 95-63-6) 3.2% maximum; Xylene (CAS: 1330-20-7) 0.3% maximum; Cumene (CAS: 98-82-8) 0.2% maximum.
RCRA Waste Code: P044.
CA Proposition 65: Not applicable.
WHMIS [Canada]: Pest control products are not controlled under WHMIS. Classified D2B
OPAC Schedule 3

Read the approved label, authorized under the Pest Control Products Act, prior to handling the pest control product.

This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labeling requirements under the Pest Control Products Act. These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. Following is the hazard information required on the pest control product label.

WARNING POISON

16 OTHER INFORMATION

SDS STATUS: Format revised.

PREPARED BY: Product Stewardship and Regulatory Affairs REVIEWED BY: Safety, Health and Environment

Pest Control Products Act REG. NO.: 9382

2016-1304
2016-08-31

GROUP	1B	INSECTICIDE

BASE

LAGON® 480 E

INSECTICIDE

COMMERCIAL

This product is not to be used in and around homes or other residential areas such as parks, school grounds, playing fields. It is not for use by homeowners or other uncertified users.

WARNING POISON

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

ACTIVE INGREDIENT: Dimethoate 480 g/L

REGISTRATION NO. 9382 PEST CONTROL PRODUCTS ACT

IN CASE OF EMERGENCY DUE TO A MAJOR SPILL, FIRE OR POISONING INVOLVING THIS PRODUCT CALL DAY OR NIGHT, 1-800-561-8273

LOVELAND PRODUCTS CANADA INC.
789 Donnybrook Drive
Dorchester, ON
N0L 1G5
1-800-328-4678

NET CONTENTS: 1 L – 115 L

1/16

GROUP	1B	INSECTICIDE

FRONT

LAGON® 480 E

INSECTICIDE

COMMERCIAL

This product is not to be used in and around homes or other residential areas such as parks, school grounds, playing fields. It is not for use by homeowners or other uncertified users.

WARNING POISON

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

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1-800-328-4678

NET CONTENTS: 1 L – 115 L

1/16

PRECAUTIONS
HARMFUL OR FATAL IF SWALLOWED, INHALED OR ABSORBED THROUGH THE SKIN
KEEP OUT OF REACH OF CHILDREN

Keep the following personal protective equipment immediately available for use in case of emergency (for example, a broken package, spill, or equipment breakdown): chemical-resistant coveralls, chemical-resistant gloves, chemical-resistant head gear and a respirator.

Not for use in greenhouses.

This product is not to be used around homes or other residential areas such as parks, school grounds and/or playing fields. It is not for use by homeowners or other uncertified users.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

Avoid breathing vapour or spray mist. Use only with adequate ventilation. Do not use indoors. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling and before eating and smoking. Avoid contamination of feed and food stuffs. Keep away from heat, sparks and open flame.

Do not use in milk processing or storage rooms. Remove livestock and poultry from buildings when spraying. Do not contaminate feed troughs, litter or drinking fountains. Do not use indoors. Do not mix with whitewash or apply within 2 weeks of whitewashing. Keep out of sun.

When spraying honey-producing crops (alfalfa, red clover, sweet clover and alsike) spray at least 5 days before bloom appears and do not introduce hives until full bloom. Hives should be removed from vicinity before making spray applications. If spraying must be done during the blooming period, restrict application to the period after dark or very early morning in order to reduce mortality to bees that may be visiting the blooms.

This product is toxic to birds and wildlife. To reduce injury to bees, restrict application to the period after dark when bees are inside the hives or in the early morning before the bees are foraging in the fields. Do not apply to such crops as alfalfa when in full bloom.

This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. Do not contaminate these systems through direct application, disposal of waste or cleaning equipment.

Ship and store between 4° and 30° C.
If this pest control product is to be used on a commodity that may be exported and you require information regarding Maximum Residue Limits for an importing country, please contact LOVELAND PRODUCTS CANADA INC.

Engineering Controls and Personal Protective Equipment:
A. Mixing/loading liquids (for all uses except forestry):
Wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves, goggles or a face shield and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH approved canister approved for pesticides.

B. Mixing/loading liquids (forestry: hemlock, spruce and balsam fir):
Use a closed system for aerial mixing/loading for forestry use (hemlock, spruce and balsam fir). Wear cotton coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves, goggles or a face shield.

C. Mixing/loading liquids (forestry: Douglas fir (seed tree), Sitka spruce (seed tree), spruce (seed tree and woodland)):
During mixing, loading, clean-up and repair, wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves, goggles or a face shield and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH/MSHA/MHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH/MSHA/BHSE approved canister approved for pesticides.

D. Applying by air:
Wear cotton coveralls over long pants, and a long-sleeved shirt, shoes, plus socks.

E. Applying by groundboom:
During groundboom application use a closed cab that provides both a physical barrier and respiratory protection (for example, dust/mist filtering and/or vapour/gas purification system). The closed cab must have a chemical resistant barrier that totally surrounds the occupant and prevents contact with pesticides outside the cab. Wear cotton coveralls over long

pants and a long-sleeved shirt, chemical resistant footwear plus socks. Chemical resistant gloves are not required to be worn while driving closed cab equipment but are required for clean-up and repair activities.

F. Applying by airblast:
During airblast application use a closed cab that provides both a physical barrier and respiratory protection (for example, dust/mist filtering and/or vapour/gas purification system). The closed cab must have a chemical resistant barrier that totally surrounds the occupant and prevents contact with pesticides outside the cab. Wear cotton coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks. Chemical resistant gloves are not required to be worn while driving closed cab equipment but are required for clean-up and repair activities.
If a closed cab is not feasible, wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves and chemical-resistant headgear. Chemical resistant headgear includes so'westers, or large brimmed, water-proof hats, and hoods with sufficient neck protection. Avoid touching face or other unprotected parts of the body during application.

G. Applying by handheld equipment:
Wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH/MSHA/MHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH/MSHA/BHSE approved canister approved for pesticides. Limit the amount of active ingredient handled per day to 2.8 kg per person (for example, approximately 2950 L at a rate of 0.96 g a.i./L) when applying by handheld equipment.

H. Applying by manually-pressurized handwand or backpack (Douglas fir (seed tree), Sitka spruce (seed tree), spruce (seed tree and woodland)):
During manually-pressurized handwand, or backpack application, wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH/MSHA/MHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides OR a NIOSH/MSHA/BHSE approved canister approved for pesticides.
DO NOT apply using mechanically-pressurized handgun equipment. Only for use with manually-pressurized hand wands or backpack sprayers.

I. Applying by right-of-way sprayer:
During mixing, loading, application, clean-up and repair, wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical-resistant gloves, goggles or a face shield.

J. Applying by soil drench, soil injection or chemigation:
Wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH/MSHA/MHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH/MSHA/BHSE approved canister approved for pesticides.

ENVIRONMENTAL PRECAUTIONS:
TOXIC to bees. Bees may be exposed through direct spray, spray drift, and residues on leaves, pollen and nectar in flowering crops and weeds. Minimize spray drift to reduce harmful effects on bees in habitats close to the application site. Avoid applications when bees are foraging in the treatment area in groundcover containing blooming weeds. To further minimize exposure to pollinators, refer to the complete guidance "Protecting Pollinators during Pesticide Spraying – Best Management Practices" on the Health Canada website (www.healthcanada.gc.ca/pollinators). Follow crop specific directions for application timing.
For applications on crops that are highly attractive to pollinators (alfalfa, clovers, canola, safflower, blueberries, cherries, peaches, pears, asparagus, and outdoor ornamentals excluding coniferous evergreens), or when using managed bees for pollination services:
DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.
For applications on all other crops:
Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging.
TOXIC to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland.
TOXIC to birds, mammals and aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE.
To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to: heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (for example, soils that are compacted or fine textured such as clay).
Avoid application of this product when heavy rain is forecast.
Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.
DECONTAMINATION
If accidental spillage of LAGON 480 E Insecticide should occur, scrub contaminated area immediately with a strong laundry soap solution or use household lye. Detergents are not satisfactory for this purpose. Repeated scrubbings are necessary on plain wood surfaces. Avoid spillage on all types of floor tile or linoleum.

FIRST AID
IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre 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 eye. Call a poison control centre or doctor for treatment advice.
IF SWALLOWED: Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible. Call a poison control centre or doctor for treatment advice.
Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION
Dimethoate is an organophosphate that is a cholinesterase inhibitor. Typical symptoms of overexposure to cholinesterase inhibitors include headache, nausea, dizziness, sweating, salivation, and runny nose and eyes. This may progress to muscle twitching, weakness, tremor, incoordination, vomiting, abdominal cramps and diarrhea in more serious poisonings. A life-threatening poisoning is signified by loss of consciousness, incontinence, convulsions and respiratory depression with a secondary cardiovascular component. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate degree of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as pralidoxime chloride, may be therapeutic if used early; however, use only in conjunction with atropine. In cases of severe acute poisoning, use antidotes immediately after establishing an open airway and respiration. With oral exposure, the decision of whether to induce vomiting or not should be made by an attending physician. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. Treat symptomatically.

STORAGE
Do not use, pour, spill, or store near heat, sparks, or open flame. Keep out of direct sunlight. Ship and store between 4°C and 30°C.

DISPOSAL
1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on this label. It is an offence under the *PEST CONTROL PRODUCTS ACT* to use this product in a way that is inconsistent with the directions on the label.

GROUP	1B	INSECTICIDE

DATAPAK

LAGON® 480 E

INSECTICIDE

COMMERCIAL

This product is not to be used in and around homes or other residential areas such as parks, school grounds, playing fields. It is not for use by homeowners or other uncertified users.

WARNING POISON

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

ACTIVE INGREDIENT: Dimethoate 480 g/L

REGISTRATION NO. 9382 PEST CONTROL PRODUCTS ACT

IN CASE OF EMERGENCY DUE TO A MAJOR SPILL, FIRE OR POISONING INVOLVING THIS PRODUCT CALL DAY OR NIGHT, 1-800-561-8273

LOVELAND PRODUCTS CANADA INC.
789 Donnybrook Drive
Dorchester, ON
N0L 1G5
1-800-328-4678

NET CONTENTS: 1 L – 115 L

1/16

PRECAUTIONS
HARMFUL OR FATAL IF SWALLOWED, INHALED OR ABSORBED THROUGH THE SKIN
KEEP OUT OF REACH OF CHILDREN

Keep the following personal protective equipment immediately available for use in case of emergency (for example, a broken package, spill, or equipment breakdown): chemical-resistant coveralls, chemical-resistant gloves, chemical-resistant head gear and a respirator.

Not for use in greenhouses.

This product is not to be used around homes or other residential areas such as parks, school grounds and/or playing fields. It is not for use by homeowners or other uncertified users.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

Avoid breathing vapour or spray mist. Use only with adequate ventilation. Do not use indoors. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling and before eating and smoking. Avoid contamination of feed and food stuffs. Keep away from heat, sparks and open flame.

Do not use in milk processing or storage rooms. Remove livestock and poultry from buildings when spraying. Do not contaminate feed troughs, litter or drinking fountains. Do not use indoors. Do not mix with whitewash or apply within 2 weeks of whitewashing. Keep out of sun.

When spraying honey-producing crops (alfalfa, red clover, sweet clover and alsike) spray at least 5 days before bloom appears and do not introduce hives until full bloom. Hives should be removed from vicinity before making spray applications. If spraying must be done during the blooming period, restrict application to the period after dark or very early morning in order to reduce mortality to bees that may be visiting the blooms.

This product is toxic to birds and wildlife. To reduce injury to bees, restrict application to the period after dark when bees are inside the hives or in the early morning before the bees are foraging in the fields. Do not apply to such crops as alfalfa when in full bloom.

This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. Do not contaminate these systems through direct application, disposal of waste or cleaning equipment.

Ship and store between 4° and 30° C.
If this pest control product is to be used on a commodity that may be exported and you require information regarding Maximum Residue Limits for an importing country, please contact LOVELAND PRODUCTS CANADA INC.

Engineering Controls and Personal Protective Equipment:
A. Mixing/loading liquids (for all uses except forestry):
Wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves, goggles or a face shield and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH approved canister approved for pesticides.

B. Mixing/loading liquids (forestry: hemlock, spruce and balsam fir):
Use a closed system for aerial mixing/loading for forestry use (hemlock, spruce and balsam fir). Wear cotton coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves, goggles or a face shield.
C. Mixing/loading liquids (forestry: Douglas fir (seed tree), Sitka spruce (seed tree), spruce (seed tree and woodland)):
During mixing, loading, clean-up and repair, wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves, goggles or a face shield and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH/MSHA/MHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH/MSHA/BHSE approved canister approved for pesticides.

D. Applying by air:
Wear cotton coveralls over long pants, and a long-sleeved shirt, shoes, plus socks.

E. Applying by groundboom:
During groundboom application use a closed cab that provides both a physical barrier and respiratory protection (for example, dust/mist filtering and/or vapour/gas purification system). The closed cab must have a chemical resistant barrier that totally surrounds the occupant and prevents contact with pesticides outside the cab. Wear cotton coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks. Chemical resistant gloves are not required to be worn while driving closed cab equipment but are required for clean-up and repair activities.

F. Applying by airblast:
During airblast application use a closed cab that provides both a physical barrier and respiratory protection (for example, dust/mist filtering and/or vapour/gas purification system). The closed cab must have a chemical resistant barrier that totally surrounds the occupant and prevents contact with pesticides outside the cab. Wear cotton coveralls over long pants and a long-sleeved shirt,

chemical resistant footwear plus socks. Chemical resistant gloves are not required to be worn while driving closed cab equipment but are required for clean-up and repair activities.
If a closed cab is not feasible, wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves and chemical-resistant headgear. Chemical resistant headgear includes so'westers, or large brimmed, water-proof hats, and hoods with sufficient neck protection. Avoid touching face or other unprotected parts of the body during application.

G. Applying by handheld equipment:
Wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH/MSHA/MHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH/MSHA/BHSE approved canister approved for pesticides. Limit the amount of active ingredient handled per day to 2.8 kg per person (for example, approximately 2950 L at a rate of 0.96 g a.i./L) when applying by handheld equipment.

H. Applying by manually-pressurized handwand or backpack (Douglas fir (seed tree), Sitka spruce (seed tree), spruce (seed tree and woodland)):
During manually-pressurized handwand, or backpack application, wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH/MSHA/MHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides OR a NIOSH/MSHA/BHSE approved canister approved for pesticides.
DO NOT apply using mechanically-pressurized handgun equipment. Only for use with manually-pressurized hand wands or backpack sprayers.

I. Applying by right-of-way sprayer:
During mixing, loading, application, clean-up and repair, wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical-resistant gloves, goggles or a face shield.

J. Applying by soil drench, soil injection or chemigation:
Wear chemical resistant coveralls over long pants and a long-sleeved shirt, chemical resistant footwear plus socks, chemical resistant gloves and suitable respiratory protection. Suitable respiratory protection is defined as either a respirator with a NIOSH/MSHA/MHSE approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH/MSHA/BHSE approved canister approved for pesticides.

ENVIRONMENTAL PRECAUTIONS:
TOXIC to bees. Bees may be exposed through direct spray, spray drift, and residues on leaves, pollen and nectar in flowering crops and weeds. Minimize spray drift to reduce harmful effects on bees in habitats close to the application site. Avoid applications when bees are foraging in the treatment area in groundcover containing blooming weeds. To further minimize exposure to pollinators, refer to the complete guidance "Protecting Pollinators during Pesticide Spraying – Best Management Practices" on the Health Canada website (www.healthcanada.gc.ca/pollinators). Follow crop specific directions for application timing.
For applications on crops that are highly attractive to pollinators (alfalfa, clovers, canola, safflower, blueberries, cherries, peaches, pears, asparagus, and outdoor ornamentals excluding coniferous evergreens), or when using managed bees for pollination services:
DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.
For applications on all other crops:
Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging.
TOXIC to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland.
TOXIC to birds, mammals and aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE.
To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to: heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (for example, soils that are compacted or fine textured such as clay).
Avoid application of this product when heavy rain is forecast.
Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

DIRECTIONS FOR USE
Lagon 480E INSECTICIDE is a true systemic insecticide. A systemic insecticide is absorbed into the system of the plant upon application and, as with all systemic materials, may in specific plants cause reactions which are neither predictable nor common to all members of the species.

LAGON 480 E Insecticide is generally effective in controlling aphids, and other listed insects, scales and mites.
LAGON 480 E Insecticide may be applied by spray or soil drench. LAGON 480 E Insecticide is an emulsifiable concentrate. Use designated amounts in full volume of water.
Buffer zones:
Use of the following spray methods or equipment DO NOT require a buffer zone: hand-held or backpack sprayer, or spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Crop		Buffer Zones (metres) Required for the Protection of:			
			Freshwater habitat of Depth:		Estuarine/Marine habitats of Depth:	
			Less than 1m	Greater than 1m	Less than 1m	Greater than 1m
Field Sprayer*	Cereals, wheat, forage crops, strawberries, vegetables, asparagus, potatoes, tomatoes, flax, clover, highbush blueberry		1	1	2	1
	Flowering plants		3	1	4	2
Airblast	Christmas trees, ornamentals	Early growth stage	10	4	15	5
		Late growth stage	5	2	5	3
	Fruit trees	Early growth stage	15	10	20	10
		Late growth stage	10	4	10	5
	Woodland	Early growth stage	30	20	30	25
		Late growth stage	20	10	25	15
	Sitka spruce	Early growth stage	35	25	40	30
		Late growth stage	25	20	30	20
Aerial	flax	Fixed wing	1	0	1	0
		Rotary wing	1	0	1	0
	Cereals, forage crops, wheat	Fixed wing	5	1	10	1
		Rotary wing	4	1	10	1
	clover	Fixed wing	10	1	15	1
		Rotary wing	5	1	10	1
	Shrubs and trees	Fixed wing	35	1	50	5
		Rotary wing	20	1	30	5
	Forestry (hemlock, spruce, balsam fir)	Fixed wing	90	1	150	15
		Rotary wing	55	1	90	2

*For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, please note that LAGON 480 E Insecticide contains a Group 1B insecticide/acaricide. Any insect/mite population may contain individuals naturally resistant to LAGON 480 E Insecticide and other Group 1B insecticide/acaricide. The resistant individuals may dominate the insect/mite population if this group of insecticides/acaricides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay insecticide/acaricide resistance:

- Where possible, rotate the use of LAGON 480 E Insecticide or other Group 1B insecticides/acaricides with different groups that control the same pests.
- Avoid application of more than the indicated number of sprays of LAGON 480 E Insecticide or other insecticides/acaricides in the same group in a season.
- Use tank mixtures with insecticides/acaricides from a different group when such use is permitted.
- Insecticide/acaricide use should be based on an IPM program that includes scouting, record keeping and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.
- 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 and to report suspected resistance, contact the Technical Service, Loveland Products Canada Inc., 1-800-328-4678 or at www.uap.ca.

FOR GROUND APPLICATION: dilute with water to 200 - 300 L/ha unless otherwise stated.
FOR AERIAL APPLICATION: unless otherwise stated, dilute with water to 11 - 22 L/ha for blueberries, cereals (barley, oats, wheat, rye) and peas. Dilute with water to 10-30 L/ha for other field and vegetable crops when aerial application is specified.

AERIAL APPLICATION INSTRUCTIONS
Use only where aerial application is indicated on this label.
Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.
Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product.
Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.
Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.
Apply only under conditions of good practice specific to aerial application as outlined in the National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

Use Precautions
Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage.
Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas.
Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Use low nozzle pressure (Below 300 kPa). Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray in winds exceeding 10 - 15 km per hour. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat. Do not allow spray drift onto sensitive areas such as water, urban and residential areas.

Operator Precautions
Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.
It is desirable that the pilot have communication capabilities at each treatment site at the time of application.
The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the label recommendations on the existing ground boom label.
All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.
Field sprayer application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) fine classification. Boom height must be 60 cm or less above the crop or ground.

Airblast application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT direct spray above plants to be treated.

Turn off outward pointing nozzles at row ends, and outer rows. DO NOT apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

Aerial application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply when wind speed is greater than 16 km/h at the application site as measured from a height of two metres off the ground. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) fine classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length MUST NOT exceed 65% of the wing- or rotorspan.

Product Specific Precautions
If you have questions, call the manufacturer at 1-800-328-4678 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

Volume: Apply the recommended rate in a minimum spray volume of 10 litres per hectare unless otherwise stated.

FIELD AND VEGETABLE CROPS:
Sprays should be applied when the pests first appear and repeated as the infestation warrants, or as otherwise directed. Applications should be made in sufficient water to obtain good coverage. Apply at the recommended rate; do not exceed a maximum spray volume of 1000 L per hectare unless otherwise stated. When aerial application is specified apply with aerial equipment and use 10 to 30L of water per hectare. Applications may be made by ground equipment unless otherwise specified.

FIELD AND VEGETABLE CROPS	PESTS CONTROLLED	AMOUNT PER HECTARE	AMOUNT PER 10 LITRES	PREHARVEST INTERVALS (DAYS)	MAXIMUM # OF APPLICATIONS PER YEAR
Alfalfa (for seed and forage production)	Aphids,Leafhoppers reduction of alfalfa weevil larvae	425 mL	4 mL	10	2
	COMMENTS: Do not graze or harvest for forage within 10 days after application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.				
	Blotch leafminers	550 mL	5 mL	10	1
	COMMENTS: Use a water volume of at least 200 L/ha with ground equipment for Blotch leafminers. Do not apply during bloom. May be applied by Ground and Aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.				
	Grasshoppers - nymphs	550 mL	5 mL	10	1
	Grasshoppers -adults or winged	850 - 900 mL	9 mL	10	2
	COMMENTS: Follow provincial forecast. Apply when insects are present as young hoppers or signs of insect damage are evident. Apply when the grasshoppers are in the 2-4 nymphal stage. Best control will be achieved when application is made prior to wing development. Under severe insect pressure application should also be made to a 15 metre strip along fence rows around the field. DO NOT APPLY TO ADJACENT UNREGISTERED CROPS. The higher rate should be used when the proportion of mature and late nymphal stages in the population are high and spray penetration is inhibited by dense crop canopy. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.				
Alfalfa (seed production)	Lygus bugs Plant bugs	1.1 L	10 mL	28	1
	COMMENTS: Apply just before alfalfa begins to bloom. Allow at least 10 days before placing leaf cutting bees in the field. Do not graze or harvest for forage with 28 days after treatment. May be applied by Ground and Aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.				
Asparagus	Asparagus aphid	2.3 L	35 mL	Not Applicable	2
	COMMENTS: Ground Application: Apply by boom or field sprayer using 675 L of water/ha. For mature asparagus, sprays should begin July 1, after crop has been harvested, and continue at 3-4 week intervals until defoliation in October. Dimethoate should be applied postharvest only, but if applied on immature asparagus do not harvest for feed or food.. For immature asparagus, begin application mid-May. Ground application ONLY. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.				
Barley, Oats, Wheat (ALSO SEE CEREALS below)	Thrips	1 L	10 mL	35	2
	COMMENTS: Ground Application: Use sufficient water to obtain good coverage (usually 110 – 275 L/ha). Same limitations apply for harvesting and grazing as in wheat section of this label. Ground and Aerial application. With aerial equipment use 10 to 30 L of water per hectare. Minimum application interval is 7 days. All activities: REI is 12 hours. Pre-grazing Interval (PGI): 14 days.				
Beans (Pole, Snap)	Aphids Grasshoppers Leafhoppers Leafminers Mexican bean beetles	700 mL - 1 L	7 - 10 mL	7	2

	Mites, Lygus bugs Tarnished plant bugs				
	COMMENTS: Use sufficient water for good coverage. Repeat applications as necessary. Do not feed or graze treated foliage to livestock. May be applied by Ground and Aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Beets	Tarnished plant bugs	700 mL	7 mL	12	2
	COMMENTS: Ground application ONLY. Minimum application interval is 7 days. All activities: REI is 3 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period				
Cauliflower Broccoli Brussels Sprouts	Aphids	700 mL - 1 L	7 - 10 mL	7 Broccoli Cauliflower 21 Brussels Sprouts	2
	COMMENTS: To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming periodUse sufficient water for good coverage. Repeat applications as necessary. Ground Application ONLY. Minimum application interval is 7 days. For Broccoli and cauliflower, all activities: REI is 5 days. For Brussels sprouts, all activities: REI is 2 days.				
Cauliflower Broccoli	Thrips	550 mL - 1.25 L	6 - 12 mL	7	2
	To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming periodApply at7 day intervals starting at head formation. Ground Application ONLY. Minimum application interval is 7 days. All activities: REI is 5 days.				
Canary Grass (Grown for seed)	Aphids	500 mL	5 mL	21	2
	COMMENTS: Apply in aerial or ground application when there are more than 50 aphids per canary seed head between heading and soft dough stage. May be applied by Ground and Aerial application. May be applied a maximum of 2 times per year. Minimum application interval is 30 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Canola (rape)	Aphids Leafhoppers Grasshoppers	850 - 900 mL	9 mL	21	2
	COMMENTS: May be applied by ground and aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.				
Celery	Aphids-including carrot green peach foxglove aphids	700 mL	7 mL	7	2
	COMMENTS: Begin application 3 weeks after transplanting. Ground application ONLY. Minimum application interval is 7 days. All Activities, REI is 3 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during				

	the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Cereals (barley, oats, wheat, rye)	Grasshoppers -nymphs, Say stink bugs	550 mL	5 mL	35	2
	Grasshoppers -adults	850 mL - 1 L	See comments		2
	COMMENTS: Do not graze or harvest for forage within 14 days after treatment at the 850 mL rate. Do not graze or harvest for forage within 28 days after treatment at the 1 L rate. Follow provincial forecast. Apply when the grasshoppers are in the 2-4 nymphal stage. Best control will be achieved when application is made prior to wing development. Under severe insect pressure application should also be made to a 15 metre strip along fence rows around the field. DO NOT APPLY TO ADJACENT UNREGISTERED CROPS. The higher rate should be used when the proportion of mature and late nymphal stages in the population are high and spray penetration is inhibited by dense crop canopy. May be applied by Ground and Aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours.				
Chicory, Chinese Broccoli Bok Choi	Aphids	600 mL - 1 L	6 - 10 mL	7	2
	COMMENTS: Apply in sufficient water for thorough coverage. Use ground application to foliage. Apply when aphids are present. Ground application ONLY. Minimum application interval is 7 days. All activities: REI is 4 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Eggplant	Tarnished plant bug	500 - 700 mL	5-7 mL	7	2
	COMMENTS: Apply when bugs are found and flowering is seen. Treat again in 7-10 days if bugs are found. Consult local authorities for proper timing. Do not apply when bees are foraging. Ground application ONLY. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Flax	Potato Aphid	427 mL	4 mL	21	1
	COMMENTS: Apply from late flowering to early green bole stage; in sufficient water to provide good coverage. May be applied by either ground or aerial methods. Use in 200 L/ha of water for ground and 11 - 22 L of water/ha for aerial equipment. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Forage crops (grasses, alfalfa, hay, clover)	Aphids (Only suppression of Russian Wheat aphid is provided)	425 - 550 mL	4 - 5 mL	2	2
	Grasshoppers-				
	low infestations	425 – 550 mL		2	2
	nymphs	550 mL		2	2
	adults	850 mL – 1L		28	2
	Lygus Bug	425 mL		2	2
	Plant Bug	425 mL		2	2
	COMMENTS: TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms. Do not graze or harvest for forage within 2 days after treatment at the 425 or 550 mL rate. Do not graze or harvest for forage within 28 days after treatment at the 850 mL – 1 L rate. May be applied by either ground or aerial methods. Minimum application interval is 7 days. All activities: REI is 12 hours.				
Leafy Vegetables: Lettuce, Swiss chard,	Aphids Leafhoppers	700 mL	7 mL	14	2

Beet greens and Turnip greens	COMMENTS: Ground application ONLY. Use sufficient water for good coverage. Do not use on Head Lettuce. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period. Minimum application interval is 7 days. Beet Greens, Turnip Greens and Lettuce: All Activities, REI is 3 days.				
Kale	Aphids Leafhoppers	700 mL	7 mL	14	2
	COMMENTS: Ground application ONLY. Use sufficient water for good coverage. May be applied a maximum of 2 times per year. Minimum application interval is 15 days. Interval between last application and harvest: 14 days. All Activities, REI is 3 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Peas (canning & field)	Aphids	275 - 380 mL	2.5 - 3.6 mL	3	2
	COMMENTS: Apply by aircraft or by ground equipment. Use sufficient water for good coverage. Repeat application as necessary. Do not feed or graze for forage within 21 days after last application. Dilute for ground (100-300 L of water/ha) and aerial application (10-30 L of water/ha). Minimum application interval is 14 days. Maximum application rate is 0.18 kg a.i./ha. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Peppers	Aphids, Maggots	700 mL - 1L	7 - 10 mL	3	2
	COMMENTS: Use sufficient water for good coverage. Repeat application as necessary. Ground application ONLY. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Potatoes, Tomatoes (field)	Aphids Leafhoppers Tarnished plant bugs	550 mL - 1.0 L	5 - 9 mL	7	2
	COMMENTS: Use sufficient water for good coverage. Do not apply more than 2 applications per season. Consult local agricultural authorities for proper timing. Ground application ONLY. Minimum application interval is 7 days. Maximum application rate is 0.48 kg a.i./ha All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Pastures Wastelands	Grasshoppers -nymphs -adults	 550 mL 850 mL-1 L		 2 See Comments	 2
	COMMENTS: Follow provincial forecast. Apply when insects are present as young hoppers or signs of insect damage are evident. Apply when the grasshoppers are in the 2-4 nymphal stage. Best control will be achieved when application is made prior to wing development. Under severe insect pressure application should also be made to a 15 metre strip along fence rows around the field. DO NOT APPLY TO ADJACENT UNREGISTERED CROPS. The higher rate should be used when the proportion of mature and late nymphal stages in the population are high and spray penetration is inhibited by dense crop canopy. Use high rate for adult grasshopper control on wasteland. Remove cattle before spraying. Do not graze or harvest for forage within 2 days after treatment at the 550 mL rate. Do not graze or harvest for forage within 7 days after treatment at the 850 mL rate. Do not graze or harvest for forage within 28 days at the 1L rate. May be applied by ground and aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming				

	period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Safflower	Grasshoppers (nymphs and adults)	550 mL-1L		21	2
	COMMENTS: Apply when damage is apparent and more than 15 grasshoppers per square meter are found in the crop. Repeat the application only when necessary. Use sufficient water for good coverage. May be applied by ground and aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.				
Soybeans	Aphids bean beetles leafhoppers tarnished plant bugs, lygus bugs	0.7-1 L	7-10 mL	30	2
	COMMENTS: Use sufficient water for good coverage. Repeat applications as necessary. Do not exceed 3 applications per season. Do not feed or graze treated foliage to livestock. May be applied by Ground and Aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
	Spider mites (Two-spotted)	1 L	10 mL	30	2
	COMMENTS: Apply by ground application in sufficient water for thorough coverage. Do not feed or allow livestock to graze treated forage. May be applied by ground and aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.				
Sweet Clover Red Clover Alsike Clover	Sweet clover weevil	850 mL - 1.1 L		28	2
	COMMENTS: Do not graze or harvest for forage within 28 days after treatment. May be applied by ground and aerial application. Minimum application interval is 7 days. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.				
Wheat (ALSO SEE CEREALS above)	Orange wheat, blossom midge, Russian wheat aphid	1 L		21	2
	COMMENTS: If midge population persists at 3 - 7 days apply a second treatment. Use a water volume of at least 100 L/ha with ground equipment and 50 L/ha by air. Higher volume will provide more thorough coverage. If adult midges are present (1 midge/4-5 wheat heads), sprays should be applied when 25% of the wheat head has fully emerged from the boot but before flowering has begun. At this stage, wheat first becomes susceptible to attack by egg-laying females. Applications should be made in the late afternoon or evening when temperatures exceed 15°C and the wind speed is less than 10 km/h. Higher volume sprays will improve penetration of the crop. Proper timing of application is essential for control. Do not harvest within 21 days of the application. Do not apply to areas where bees are actively foraging or near apiaries as product is toxic to bees. Do not graze or use for forage within 7 days of application. Consult provincial authorities for further information concerning rates and time of application. . Minimum application interval is 7 days. All activities: REI is 12 hours.				

FRUIT CROPS:

APPLY WITH GROUND EQUIPMENT ONLY UNLESS OTHERWISE NOTED. FOR DILUTE GROUND APPLICATIONS, Apply at the recommended rate; do not exceed a maximum spray volume of 1000 L per hectare unless otherwise stated. . For Cherry, Peach

and Pear, the rate per hectare is based on using 3000 L of spray on full sized trees, 4.5-5.5 metres high, Apply at the recommended rate; do not exceed a maximum spray volume of 3000 L per hectare unless otherwise stated. Trees smaller or larger may require more or less LAGON 480 E. Follow provincial calendar guidelines as to water volumes for the size of tree being sprayed.

FRUIT TREE CROPS	PEST CONTROLLED	AMOUNT PER HECTARE	AMOUNT PER 10 L	AMOUNT PER 1000 L	PREHARVEST INTERVALS	MAXIMUM # OF APPLICATIONS PER YEAR
Pears	Tarnished plant bugs		6.25 mL	625 mL	28	2
	COMMENTS: Pears: Apply at pre-bloom. The minimum application interval is 10 days. Maximum rate 1.44 kg a.i./ha. Thinning: REI is 28 days. Hand harvesting, hand-line irrigation: REI is 17 days. All other activities: REI is 1 day. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.					
	Pear Psylla		10 – 12.5 mL	1 – 1.25 L	28	2
	COMMENTS: Use sufficient water for good cover spray. The minimum application interval is 10 days. Maximum application rate is 1.44 kg a.i./ha. Thinning: REI is 28 days. Hand harvesting, hand-line irrigation: REI is 17 days. All other activities: REI is 1 day. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.					
	Aphids		10 – 12.5 mL	1 – 1.25 L	28	2
	COMMENTS: Use sufficient water for good cover spray The minimum application interval is 10 days. Maximum application rate is 1.44 kg a.i./ha. Thinning: REI is 28 days. Hand harvesting, hand-line irrigation: REI is 17 days. All other activities: REI is 1 day. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.					
	Mites		10 – 12.5 mL	1 – 1.25 L	28	2
	COMMENTS: Use sufficient water for good cover spray The minimum application interval is 10 days. Maximum application rate is 1.44 kg a.i./ha. Thinning: REI is 28 days. Hand harvesting, hand-line irrigation: REI is 17 days. All other activities: REI is 1 day. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.					
Peaches (non-bearing)	Aphids, Mites		10 -15 mL	1 – 1.5 L	40	2
	Tarnished plant bugs	1.7 L	5 mL	500 mL	-40	2
	COMMENTS: Spray when insects first appear and repeat as necessary using sufficient water for good coverage. Some defoliation may occur under cold wet soil and/or slow drying conditions during and following application. Least injury has occurred when sprays were applied in the morning while temperatures are moderate and drying conditions are fairly good. The minimum application interval is 10 days. Thinning: REI is 32 days. Hand harvesting, hand-line irrigation: REI is 20 days. All other activities: REI is 3 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.					
Sour Cherries	Cherry fruit fly Maggots	2.25 L	5 mL	500 mL	21	2
	COMMENTS: Apply no later than 6 days after the first adult fly has been trapped and repeat in 14 days if required. Thinning: REI is 20 days. Hand harvesting, hand-line irrigation: REI is 9 days. All other activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.					
Sweet Cherries	Cherry fruit fly maggots	2.25 L	5 mL	500 mL	21	2
	COMMENTS: Apply no later than 6 days after the first adult fly has been trapped and repeat in 14 days if required. Thinning: REI is 20 days. Hand harvesting, hand-line irrigation: REI is 9 days. All other activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.					

SMALL FRUIT CROPS	PESTS CONTROLLED	AMOUNT PER HECTARE	AMOUNT PER 10 LITRES	AMOUNT PER 1000 LITRES	PREHARVEST INTERVALS (DAYS)	MAXIMUM # OF APPLICATIONS PER YEAR

Blueberry Lowbush Highbush	Blueberry maggot	580 – 830 mL 830 mL	6 – 8 mL		21	2
	COMMENTS: Apply pesticide in sufficient water for good coverage, one week after first berries ripen. Use no more than 1000 L spray/ha. Make 1 or 2 applications between mid to late July. May vary depending on area and season. May be applied with ground equipment or aerial equipment. Hand harvesting (high bush): REI is 9 days. Hand harvesting (low bush) and all other activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.					
Strawberries (bearing)	Tarnished plant bug	2.75 L	12.5 mL	1.25 L	7	2
	COMMENTS: Apply first spray when first blooms appear and the second application 10-12 days later if needed. May be applied a maximum of 2 times per year. Minimum application interval is 10 days. All Activities, REI is 2 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.					
Strawberries (bearing & non-bearing)	Aphids, mites	2.25 L	10 mL	1 L	7	2
	COMMENTS: Use sufficient water for good cover spray. Spray when insects first appear and repeat at monthly intervals as required. May be applied a maximum of 2 times per year. Minimum application interval is 10 days. All Activities, REI is 2 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.					

CROPS	**PEST**	**RATE PER HECTARE**	**REMARKS**
Filberts, Hazelnuts	Aphids	5L	Use one application per season. Apply when aphids appear. DO NOT USE WITHIN 45 DAYS OF HARVEST. Primarily for use on young plantings Thinning: REI is 34 days. Hand harvesting, hand-line irrigation: REI is 21 days. All other activities: REI is 5 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.

ORNAMENTALS

GENERAL COMMENTS ORNAMENTAL PLANTS

APPLY ONLY WITH GROUND APPLICATION EQUIPMENT

1. LAGON 480 E is a true systemic insecticide. A systemic insecticide is absorbed into the system of the plant upon application, and as with all systemic materials, may cause reactions in specific plants which are not predictable nor common to all members of the species. Do not over-dose or over-spray.
2. FOR PROPER TIMING of treatments for the control of specific pests on ornamental plants, consult local agricultural authorities. In general, apply adequate spray for good coverage when pests appear or when damage is first observed, unless otherwise indicated.
3. EXPERIENCE has shown when dealing with species that may be injured by foliar application, soil drenches are safer on those plants for which they are recommended. When using foliar sprays, do not apply during heat of the day or when temperatures are excessively high.
4. DO NOT USE on ornamental plants not listed.

5. WHEN IN DOUBT about plant safety, it is advisable to spray a single branch or dip several leaves in the spray solution. A waiting period of 3 or 4 days will usually indicate if plant damage will result.
6. DO NOT SPRAY the following species unless you have tested single branches or leaves to ascertain safety:
   American Elm — Mop-head Elm
   Norway Maple — Mock Orange
   Sunburst Locust — Morraine Locust
   or other ornamentals not listed in this pamphlet.
7. There has been no report of damage by LAGON 480 E to any of the common evergreen species grown in Canada provided recommended rates have been followed.
8. Do not apply foliar spray during the heat of the day or when temperatures are exceedingly high.
9. Apply at the recommended rate; do not exceed a maximum spray volume of 1000 L per hectare unless otherwise stated.

OUTDOOR FLOWERING PLANTS	PESTS CONTROLLED	AMOUNTS PER 1000 L OF WATER	AMOUNTS PER 10 L OF WATER
Azaleas	Lace bugs, Leafminers, Mites Whiteflies	1 L	10 mL
	COMMENTS: The minimum application interval is 14 days. May b eapplied a maximum of 2 times per year. All Activities, REI is 2 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Camellias	Aphids, Mites, Camellia scales	1 L	10mL
	FOLIAR SPRAYS: Apply 2 sprays 6 weeks apart the first year followed by annual applications soon after first growth begins in the spring. The minimum application interval is 10 days. May be applied a maximum of 2 times per year. All Activities, REI is 2 days. SOIL DRENCH: Apply LAGON 480 E as a soil drench around the base of plants in early spring at the rate of 60 mL per 10 L of water per plant up to 2 metres tall. Increase this rate proportionately for larger plants. Soil drench: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Carnations	Aphids, Thrips, Mites	1 L	10 mL
	COMMENTS: All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section.		
~~TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period or~~ during the 5-day period before the crop blooms..			
Day Lilies	Aphids, Thrips	2 L	20 mL
	May be applied a maximum of 1 time per year. All activities: REI 7 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Euonymus	Aphids, Scales	2 L	20 mL
	COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Gardenias	Tea scales, White flies	1 L	10 mL
	COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Gerberas	Thrips	1 L	10 mL
	COMMENTS: May be applied a maximum of 1 time per year. All Activities, REI is 2 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming		

	period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Gladiolus	Aphids,Thrips	1 L	10 mL
	COMMENTS: May be applied a maximum of 1 time per year. All Activities, REI is 2 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Iris	Aphids, Iris Borers, Thrips	2 L	20 mL
	For borer control spray when new leaves are 12 to 15 cm tall. COMMENTS: May be applied a maximum of 1 time per year. All activities: REI is 7 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Poinsettias (outdoor plants)	Aphids, White flies, Mites, Mealy bugs	1 L	10 mL
	COMMENTS: May be applied a maximum of 1 time per year. All Activities, REI is 2 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		
Roses (outdoor plants)	Aphids, Leafhoppers, Mites, Thrips	1 L	10 mL
	Apply thoroughly during growing season in a spray. The minimum application interval is 10 days. May b eapplied a maximum of 2 times per year. All Activities, REI is 2 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.		

OUTDOOR ORNAMENTALS AND CHRISTMAS TREES	**PESTS CONTROLLED**	**AMOUNTS PER 1000 L OF WATER**	**AMOUNTS PER 10 L OF WATER**
Christmas Trees: Balsam Fir, Spruce, Hemlock, Pine (Mugho, Red, Scots)	Aphids, mites, Scales, Spruce needle miners, Spruce budworms	1.5 L	15 mL
	COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. Thinning: REI is 18 days. Hand line irrigation: REI is 3 days. All other activities: 12 hours.		
	Bagworms, European pine shoot moths, Nantucket pine tip moths, Zimmerman pine moths	2 L	20 mL
	COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. Thinning: REI is 18 days. Hand line irrigation: REI is 3 days. All other activities: 12 hours.		
Arborvitae	Aphids, Bagworms, Mites	2 L	20 mL
	COMMENTS: The minimum application interval is 10 days. May be applied a maximum of 2 times per year. All activities: REI is 12 hours.		
Birch	Aphids, Birch Leafminers	500 mL	5 mL
	FOLIAR SPRAY: For leaf miners apply when leaves are expanded (about mid-May); repeat the last week in June. For all activities: REI is 12 hours. SOIL DRENCH: For full-season control LAGON 480 E may be used as a soil drench once in early May when the leaves start to open. Apply LAGON 480 E undiluted at a rate of 11 mL/cm of stem basal diameter (cumulative total of all stems) evenly into small shallow holes made with a sharp instrument at the dripline of the tree of clump. Close the holes with soil. Drench thoroughly with water		

	immediately so as to saturate the root system. One soil drench treatment in May should give control of birch leafminers for the complete season. Do not make more than one soil drench treatment per season. Soil drenches may not be effective on newly-transplanted birches where the root system is not well established. Some hybrid varieties eg: cutleaf and silver birch may be damaged by excessive amounts of LAGON. Therefore, apply no more than the recommended dosage. Soil drench: REI is 12 hours.		
	Birch Leafminers	500 mL	5 mL
COMMENTS: To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.			
Boxwood	Mites, Leafminers, Mealy bugs	1 L	10 mL
	COMMENTS: For leafminers, apply in spring when leafminer flies first appear or in early summer for control of larvae in the infested leaves. The minimum application interval is 14 days. May be applied a maximum of 2 times per year. Thinning: REI is 7 days. All other activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.		
Cedar	Mites	2 L	20 mL
	COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. Thinning: REI is 13 days. All other activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.		
Douglas Fir (seed tree)	Cone insects (cone or gall midges, cone moths, seed chalcids, scale midges). 2 L per 100 litres of water. Maximum rate 20 L of product (= 9.6 kg a.i.) per hectare. Application should be made when cones are at or near the pendant stage. Complete coverage of the cones and foliage in the cone-bearing area of the tree is important for satisfactory results. Maximum of two applications per year. Minimum application interval: 10 days Seed cone harvesting: 48 days REI. Scouting: 5 days REI. Grading, animal control, baiting: 1 day REI.		
Hemlock	Mites, Scales, Spruce needle miners Spruce budworms	1 L	10 mL
	COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. Thinning: REI is 13 days. All other activities: REI is 12 hours.		
Holly (English & American)	Mites, Soft Scale, Leafminers	1 L	10 mL
	COMMENTS: For leafminers apply in spring when leafminer flies first appear, or in early summer for the control of larvae in the infested leaves. The minimum application interval is 14 days. May be applied a maximum of 2 times per year. All activities: REI is 12 days. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.		
Juniper	Aphids, Bagworms, Midges, Mites	2 L	20 mL
	COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. All activities: REI is 12 hours.		
Larch	Cone Maggots, Seed Wasps	5 L	50 mL
	COMMENTS: One application per season; apply within 3 weeks after pollination; spray to runoff on foliage; ground hydraulic sprayer or mist sprayer. All Activities, REI is 1 day. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.		
Lilacs (Syringa spp.)	Leafminers	1.25 L	12.5 mL
	COMMENTS: Apply two sprays 6 weeks apart. Application should be made as soon as any signs of the leafminer appear, or, first application should be started in early June. The minimum application interval is 10 days. May be applied a maximum of 2 times per year. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.		
All activities: REI is 15 days.			
Oak	Golden oak scales	2 L	20 mL
	COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. Thinning: REI is 13 days. All other activities: 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. DO NOT apply during the crop blooming period or during the 5-day period before the crop blooms.		

Pine (Mugho, Red, Scots)	Aphids, Bagworms, European pine shoot moths, Nantucket pine tip moths, Zimmerman pine moths	2 L	20 mL
	Red and black-headed pine sawfly larvae	1 L	10 mL
	COMMENTS: For pine shoot moths apply early in the spring and again in mid-June, thoroughly wetting branch tips. COMMENTS: The minimum application interval is 14 days. May be applied a maximum of 2 times per year. Thinning: REI is 18 days. Hand line irrigation: REI is 3 days. All other activities: REI is 12 hours.		

Sitka spruce (seed tree): Sitka spruce weevils. 20.8 L per 1000 litres of water. Maximum rate 20.8 L of product (= 10 kg a.i.) per hectare. Thoroughly spray the terminal growth to the point of runoff at the time of egg laying (usually during the first half of May). Maximum two applications per year. Minimum application interval: 10 days. Seed cone harvesting: 49 days REI. Scouting: 5 days REI. Grading, animal control, baiting: 1 day REI.

Spruce (seed tree and woodland use): Seed and cone insects. 10.4 - 20.8 L per 1000 L water. Maximum rate 20.8 L of product (10 kg a.i) per hectare. Thoroughly spray cone-bearing portions of tree to point of runoff when strobili cones are closed, and turning, but before they reach the horizontal position. Contact your local forest pest control office for more information on timing, and spray application, as well as spruce species that may be treated. Maximum of one application per year. Minimum application interval: 10 days. Seed cone harvesting: 49 days REI. Scouting: 5 days REI. Hand pruning, staking, tying: 27 days REI. Grading, animal control, baiting: 2 days REI.

Taxus	Mites, Fletcher scale, Mealy bugs	2 L	20 mL
	COMMENTS: For Fletcher scale, spray at the end of June and again 2 days later when crawlers are moving. May be applied a maximum of 2 times per year. Minimum application interval is 14 days. All activities: REI is 12 hours.		

NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS:

The DIRECTIONS FOR USE for this product for the use described below were developed by persons other than Loveland Products Canada Inc. and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. Loveland Products Canada Inc. itself makes no representation or warranty with respect to performance (efficacy) and/or crop tolerance (phytotoxicity) claims for this product when used on the crop listed below.

Accordingly, the Buyer and User assume all risks related to performance and crop tolerance arising, and agree to hold Loveland Products Canada Inc. harmless from any claims based on efficacy and/or phytotoxicity in connection with the use described below.

Highbush Blueberry

Crop	**Pest**	**Rate per 1000 L water**	**Maximum No. of Applications**	**Reapplication Interval**
Highbush Blueberry	Spotted Wing Drosophila	830 mL	2	15 days
COMMENTS: Apply post-harvest only, to control spotted wing Drosophila (adults and larvae in fruit) that may otherwise infest adjacent crops. Timing varies, depending on variety of highbush blueberry. Foliar application only, using conventional ground application equipment. Use sufficient water volume to ensure thorough coverage, to a maximum of 1000 L/ha.				

RESTRICTED USES - FORESTRY USE

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on the label. It is an offence under the Pest Control Product Act to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.
CAUTION: Forest Pest Control - birds and other wildlife in treated area may be harmed.
Apply at the recommended rate; do not exceed a maximum spray volume of 1000 L per hectare unless otherwise stated.

RESTRICTED USE - AERIAL APPLICATION TREE	PESTS CONTROLLED	COMMENTS
Hemlock, Spruce, Balsam fir	Mites, Scales, Spruce needle miners, Spruce budworms	For aircraft application use 1.5 L of LAGON 480 E in 5-20 L of water/ha, applied as a uniform spray of fine droplets. Application should be made as soon as the larvae hatch. COMMENTS: May be applied a maximum of 1 time per year. Thinning: REI is 13 days. All other activities: REI is 12 hours.

NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS:

The DIRECTIONS FOR USE for this product for the use described below were developed by persons other than Loveland Products Canada Inc. and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. Loveland Products Canada Inc. itself makes no representation or warranty with respect to performance (efficacy) and/or crop tolerance (phytotoxicity) claims for this product when used on the crop listed below.

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ANNUAL CANARYGRASS

CROP	PEST	RATE PER HA	MAXIMUM NO. OF APPLICATIONS PER YEAR	PREHARVEST INTERVALS (DAYS)	AMOUNT PER 10 LITRES
Annual canarygrass	Aphids	500 mL	1	21	5 mL

COMMENTS: Apply in aerial or ground application when there are more than 50 aphids per canary seed head between heading and soft dough stage. May be applied by Ground and Aerial application.
May be applied a maximum of 1 time per year. All activities: REI is 12 hours. To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section. TOXIC to bees. Avoid application during the crop blooming period. If applications must be made during the crop blooming period, restrict applications to evening when most bees are not foraging. When using managed bees for pollination services, DO NOT apply during the crop blooming period.
Annual canarygrass seeds can be harvested for human consumption.
Annual canarygrass grown for human consumption is not to be cut for feed or grazed.

DECONTAMINATION
If accidental spillage of LAGON 480 E Insecticide should occur, scrub contaminated area immediately with a strong laundry soap solution or use household lye. Detergents are not satisfactory for this purpose. Repeated scrubbings are necessary on plain wood surfaces. Avoid spillage on all types of floor tile or linoleum.

FIRST AID
IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre 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 eye. Call a poison control centre or doctor for treatment advice.
IF SWALLOWED: Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible. Call a poison control centre or doctor for treatment advice.
Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION
Dimethoate is an organophosphate that is a cholinesterase inhibitor. Typical symptoms of overexposure to cholinesterase inhibitors include headache, nausea, dizziness, sweating, salivation, and runny nose and eyes. This may progress to muscle twitching, weakness, tremor, incoordination, vomiting, abdominal cramps and diarrhea in more serious poisonings. A life-threatening poisoning is signified by loss of consciousness, incontinence, convulsions and respiratory depression with a secondary cardiovascular component. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate degree of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as pralidoxime chloride, may be therapeutic if used early; however, use only in conjunction with atropine. In cases of severe acute poisoning, use antidotes immediately after establishing an open airway and respiration. With oral exposure, the decision of whether to induce vomiting or not should be made by an attending physician. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. Treat symptomatically.

STORAGE
Do not use, pour, spill, or store near heat, sparks, or open flame. Keep out of direct sunlight. Ship and store between 4°C and 30°C.

DISPOSAL
6. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
7. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
8. Make the empty container unsuitable for further use.
9. Dispose of the container in accordance with provincial requirements.
10. For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on this label. It is an offence under the *PEST CONTROL PRODUCTS ACT* to use this product in a way that is inconsistent with the directions on the label.

EN CAS D'URGENCE RÉSULTANT D'UN DÉVERSEMENT IMPORTANT, D'UN INCENDIE OU D'UNE INTOXICATION IMPLIQUANT CE PRODUIT, TÉLÉPHONER EN TOUT TEMPS AU 1-800-561-8273 OU À CHEMTREC : 1-800-424-9300

1. IDENTIFICATION DU PRODUIT ET RENSEIGNEMENTS SUR LE FOURNISSEUR

1.1 Identification du produit :
Nom commercial : **INSECTICIDE LAGON® 480 E**
1.2 Usages recommandés : INSECTICIDE DU GROUPE 1B
1.3 Distribué par :
LOVELAND PRODUCTS CANADA, INC.
789 DONNYBROOK DRIVE • DORCHESTER, ONTARIO N0L 1G5
1.4 Numéro d'urgence 24 h (Chemtrec) : 1-800-424-9300 (Sans frais) **Autre numéro d'urgence :** 1-800-561-8273
Services techniques de Loveland : 1-800-328-4678
Centre national d'intervention d'urgence de la Garde côtière américaine : 1-800-424-8802

2. IDENTIFICATION DES RISQUES

2.1 Classification de la substance ou du mélange

Toxicité aiguë - Ingestion	Catégorie 3	H301
Dommage/Irritation oculaire	Catégorie 2A	H319
Toxicité aiguë - Cutanée	Catégorie 4	H312

2.2 Éléments d'étiquetage

Termes d'avertissement : DANGER

Codes de danger :
H301 – Toxique en cas d'ingestion.
H319 – Provoque une sévère irritation des yeux.
H312 – Nocif par contact cutané.

Conseils de prudence : (Prévention)
P264 – Se laver soigneusement les mains, le visage et la peau après manipulation.
P270 – Ne pas manger, boire ou fumer en manipulant le produit.
P280 – Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage.
P210 – Tenir à l'écart de la chaleur/des étincelles/des flammes nues/des surfaces chaudes. – Ne pas fumer.

Conseils de prudence : (Intervention)
P301+P310 – EN CAS D'INGESTION : appeler immédiatement un CENTRE ANTIPOISON ou un médecin.
P321 – Traitement spécifique (voir la section REMARQUES AU MÉDECIN sur l'étiquette du produit).
P330 – Rincer la bouche.
P305+P351+P338 – EN CAS DE CONTACT AVEC LES YEUX : rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être enlevées facilement. Continuer à rincer.
P337+P313 – Si l'irritation oculaire persiste : consulter un médecin.
P302+P350 – EN CAS DE CONTACT AVEC LA PEAU : laver avec précaution et abondamment à l'eau et au savon.
P312 – Appeler un CENTRE ANTIPOISON ou un médecin en cas de malaise.
P362 – Enlever les vêtements contaminés et les laver avant réutilisation.
P370+P378 – En cas d'incendie : utiliser un le moyen approprié pour combattre l'incendie.

Conseils de prudence (Entreposage)
P405 – Garder sous clé.
P403+P235 – Stocker dans un endroit bien ventilé. Tenir au frais.

Conseils de prudence : (Élimination)
P501 – Éliminer le contenu/récipient en respectant la réglementation locale, provinciale et nationale.

2.3 Autres dangers
Aucun connu.

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3. COMPOSITION, RENSEIGNEMENTS SUR LES INGRÉDIENTS

3.1 Substances

3.2 Mélanges

Ingrédients chimiques	Nº de CAS	Concentration [%]
Diméthoate	60-51-5	480 g é.a./L | 45,2
Cyclohexanone	108-94-1	38,00
Solvant naphta (pétrole), fraction des aromatiques légers	64742-95-6	10,8

Les ingrédients qui ne sont pas répertoriés de façon précise sont sans danger, de propriété exclusive ou de nature confidentielle.

4. PREMIERS SOINS

4.1 Descriptions des mesures de premiers soins

Recommandation générale : Consulter un médecin en cas de symptômes.

En cas d'ingestion : Appeler un centre antipoison ou un médecin immédiatement pour obtenir des conseils sur le traitement à administrer. Si la personne incommodée est capable d'avaler, lui faire boire un verre d'eau à petites gorgées. Ne pas faire vomir à moins d'avoir reçu le conseil de procéder ainsi par le centre antipoison ou le médecin. Ne jamais rien administrer par la bouche à une personne inconsciente.

En cas de contact avec les yeux : Rincer les yeux à l'eau doucement et lentement pendant 15 à 20 minutes en tenant les paupières ouvertes. Si la personne porte des lentilles cornéennes, les retirer après 5 minutes, puis continuer à rincer. Appeler un centre antipoison ou un médecin pour obtenir des conseils sur le traitement à administrer.

En cas de contact avec la peau/vêtements : Retirer tous les vêtements contaminés. Bien rincer la peau à grande eau immédiatement pendant 15 à 20 minutes. Appeler un centre antipoison ou un médecin pour des conseils sur le traitement à administrer.

En cas d'inhalation : Déplacer la personne vers une source d'air frais. Si la personne ne respire plus, appeler le 911 ou une ambulance, puis pratiquer la respiration artificielle, de préférence le bouche-à-bouche, si possible. Appeler un centre antipoison ou un médecin pour obtenir plus de conseils sur le traitement à administrer.

4.2 Principaux symptômes et effets, tant aigus que différés

Symptômes : Toxique en cas d'ingestion. Ce produit peut causer une inhibition de la cholinestérase. Cause une irritation oculaire. Nocif par contact cutané.

4.3 Soins médicaux immédiats et traitements particuliers éventuels

Traitement : Ce produit contient des distillats de pétrole.

POUR TOUTE URGENCE MÉDICALE CONCERNANT CE PRODUIT, COMPOSER LE 1-800-561-8273.
Avoir l'étiquette, le contenant ou le nom du produit ainsi que son numéro d'homologation de produit antiparasitaire lorsqu'on cherche à obtenir des soins médicaux.

REMARQUES POUR LE MÉDECIN : Ce produit est un insecticide organophosphoré, un inhibiteur de la cholinestérase. L'atropine est l'antidote à privilégier mais elle doit être administrée seulement en présence des symptômes d'inhibition de la cholinestérase. Dans les cas graves, le chlorure de Pralidoxime (2-PAM/protopam) peut aussi être utilisé comme antidote en combinaison avec l'atropine. Utiliser le produit selon les directives inscrites sur l'étiquette. Déterminer la cholinestérase du sérum et RBC. L'emploi de morphine, de théophylline, d'aminophylline, de phénothiazine, de réserpine, de furosémide ou d'acide éthacrynique est contre-indiqué dans les cas d'intoxication aux composés organophosphorés. Administrer des fluides par voie intraveineuse avec précaution, au besoin, pour réhydrater la personne atteinte. Les symptômes d'inhibition de la cholinestérase comprennent maux de tête, étourdissements, vision brouillée, faiblesse, nausées, crampes, diarrhée, inconfort dans la poitrine, nervosité, transpiration, myosis, larmoiement, salivation, œdème pulmonaire, fibrillation incontrôlable, convulsions, coma et perte des réflexes et du contrôle des sphincters..

5. TECHNIQUES DE LUTTE CONTRE L'INCENDIE

5.1 Moyens d'extinction

Moyens d'extinction appropriés : Utiliser un agent extincteur approprié pour lutter contre le feu. Mousse, dioxyde de carbone (CO_2), produit chimique sec, jet léger ou brouillard d'eau.

5.2 Dangers particuliers résultant de la substance ou du mélange

Dangers particuliers durant la lutte contre le feu : Des oxydes de soufre, des composés phosphorés, du monoxyde de carbone et d'autres matériaux dangereux inconnus peuvent être formés durant un incendie.

5.3 Équipement de protection et précautions particuliers pour les pompiers

Équipement de protection particulier pour les pompiers : Les personnes combattant un feu important impliquant des produits chimiques devraient porter un appareil respiratoire autonome et un équipement de protection complet. Utiliser de l'eau pulvérisée pour refroidir les contenants exposés au feu. Tenir les gens à l'écart. Isoler la zone d'incendie et en interdire l'accès aux personnes dont la présence est inutile.

6. MESURES EN CAS DE DÉVERSEMENTS ACCIDENTELS

6.1 Précautions personnelles, équipement de protection individuelle et mesures d'urgence

Précautions personnelles : Éviter d'inhaler les vapeurs et le brouillard de pulvérisation et le contact avec la peau et les yeux. Assurer une ventilation adéquate. Porter des vêtements de protection appropriés.

6.2 Précautions environnementales

Précautions environnementales : Ne pas appliquer directement sur l'eau, les endroits recouverts d'eau de surface ou les zones intertidales situées sous la ligne moyenne des hautes eaux, sous réserve de ce qui est mentionné sur les étiquettes appropriées. La dérive et le ruissellement à partir des zones traitées peuvent représenter un risque pour les organismes aquatiques des zones environnantes. Ne pas contaminer les plans d'eau lors de l'élimination de l'eau de lavage et de rinçage de l'équipement.

6.3 Méthodes et matériaux de confinement et de nettoyage

Méthodes de nettoyage : Déversements majeurs : Stopper le déversement si c'est possible de le faire sans risque. Endiguer le matériel déversé si possible. Absorber avec de la vermiculite, du sable sec ou de la terre et placer dans des contenants appropriés. Après récupération du produit déversé, bien rincer la zone touchée avec de l'eau.
Déversements mineurs : Absorber le produit déversé avec une matière absorbante (p. ex. tissu, laine). Bien nettoyer la surface pour éliminer toute contamination résiduelle.
Ne jamais remettre les produits déversés dans les contenants d'origine pour réutilisation.

7. MANIPULATION ET ENTREPOSAGE

7.1 Précautions à prendre pour une manipulation sécuritaire

Conseils pour une manipulation sécuritaire :

Se laver les mains avant de boire et de manger, de mâcher de la gomme, de fumer ou d'aller aux toilettes. Retirer les vêtements immédiatement après manipulation si les pesticides entrent à l'intérieur. Ensuite, bien se laver et enfiler des vêtements propres. Enlever l'ÉPI après manipulation de ce produit. Laver l'extérieur des gants avant de les retirer. Dès que possible, bien se laver et mettre des vêtements propres.

7.2 Conditions pour un entreposage sécuritaire

Exigences pour les lieux de stockage et les contenants :

Ne pas utiliser, verser, répandre ou entreposer le produit près d'une source de chaleur, d'étincelles ou de flammes nues. Ne pas exposer directement aux rayons de soleil. Expédier ou conserver à des températures entre 4 °C et 30 °C et bien mélanger avant l'utilisation. Ne pas contaminer l'eau, les aliments de consommation humaine et la nourriture pour animaux durant l'entreposage.

8. EXPOSITION/PROTECTION PERSONNELLE

8.1 PARAMÈTRES DE CONTRÔLE

LIMITES D'EXPOSITION PROFESSIONNELLE

Ingrédients	Type	Valeur
Cyclohexanone	VEMP (valeur d'exposition moyenne pondérée)	20 ppm (Peau)
Cyclohexanone	VECT (valeur d'exposition à court terme)	50 ppm (Peau)
Triméthyl-1,2,4 benzène	VEMP	25 ppm

Valeurs limites d'exposition professionnelle (VLE) de OSHA U.S.

Ingrédients	Type	Valeur
Cyclohexanone	VEMP	50 ppm

Valeurs limites d'exposition biologique

Indices d'exposition biologique de l'ACGIH

Ingrédients	Valeur	Échantillon
Aucun ingrédient listé		

8.2 CONTRÔLE DE L'EXPOSITION

Mesures d'ingénierie : Utiliser uniquement à l'extérieur ou dans un endroit bien ventilé.

Mesures de protection individuelle :

Protection des yeux et du visage : Le port de lunettes de protection ou de lunettes pourvues d'écrans latéraux de protection est recommandé.

Protection de la peau : Chemise à manches longues et pantalon long. Chaussettes et chaussures. Gants résistants aux produits chimiques. Rincer les gants avant de les retirer.

Protection respiratoire : Non requise de façon générale. Si des appareils de protection respiratoire sont utilisés, un programme devrait être mis en place pour assurer leur conformité aux règlements OSHA pour l'usage d'un appareil respiratoire (29 CFR 1910. 134).

9. PROPRIÉTÉS PHYSIQUES ET CHIMIQUES

9.1

APPARENCE : Liquide.
ODEUR : Odeur de solvant et de thiol (mercaptan) légère.
SEUIL OLFACTIF : Aucune donnée disponible.
COULEUR : Ambre clair à jaune.
pH : 3,59 (solution à 5 %)
POINT DE FUSION / POINT DE CONGÉLATION : Aucune donnée disponible.
POINT D'ÉBULLITION : Aucune donnée disponible.
POINT D'ÉCLAIR : 44 °C (coupelle fermée).
INFLAMMABILITÉ (solide, gaz) : Aucune donnée disponible.
LIMITES SUPÉRIEURE ET INFÉRIEURE D'INFLAMMABILITÉ OU D'EXPLOSION : Aucune donnée disponible.
TENSION DE VAPEUR : Aucune donnée disponible.
SOLUBILITÉ : Soluble.
COEFFICIENT DE PARTAGE, n-OCTANE/EAU : Log K_{ow} 0,704 (diméthoate technique).
POINT D'AUTO-INFLAMMATION : Aucune donnée disponible.
TEMPÉRATURE DE DÉCOMPOSITION : Aucune donnée disponible.
VISCOSITÉ : Aucune donnée disponible.
POIDS SPÉCIFIQUE (EAU = 1) : 1,08 g/mL
MASSE VOLUMÉTRIQUE APPARENTE : 1,08 kg/L

Remarque : Ces données physiques constituent des valeurs typiques basées sur le matériel mis à l'essai, mais peuvent varier d'un échantillon à l'autre. Les valeurs typiques ne doivent pas être interprétées comme étant une analyse garantie d'un lot particulier ou les caractéristiques du produit.

10. STABILITÉ ET RÉACTIVITÉ

10.1 Réactivité
Stable.

10.2 Stabilité chimique
Stable sous des conditions normales de température.

10.3 Possibilité de réactions dangereuses
Aucune donnée disponible. Ne se polymérisera pas.

10.4 Conditions à éviter
Chaleur excessive. Ne pas conserver près d'une source de chaleur ou d'allumage.

10.5 Substances incompatibles
Éviter le contact avec les agents acides forts, les bases ou les agents oxydants.

10.6 Produits de décomposition dangereux
Des oxydes de soufre, des composés phosphorés, du monoxyde de carbone et d'autres matériaux dangereux inconnus peuvent être formés.

11. RENSEIGNEMENTS TOXICOLOGIQUES

11.1 Voies d'exposition probables
Ingestion. Contact avec les yeux. Absorption cutanée. Contact avec la peau.
CL_{50} (rat) : > 5,34 mg/L (4 h).
Toxicité orale aiguë DL_{50} (rat) : 425 mg/kg.
Toxicité cutanée aiguë DL_{50} (lapin) : 2020 mg/kg
Estimations de toxicité aiguë : Aucune donnée disponible.
Irritation cutanée (lapin) : Irritation légère.
Irritation des yeux (lapin) : Irritation substantielle mais temporaire des yeux.
Toxicité spécifique à un organe cible : Peau, système nerveux central, foie, reins.
Aspiration : Aucune donnée disponible.
Sensibilisation cutanée (cobaye) : N'est pas un sensibilisant.
Potentiel carcinogène : CIRC 2B (peut-être cancérogène pour l'humain).
Mutagénicité des cellules germinales : Aucune donnée disponible.
Effets interactifs : Aucun connu.

12. RENSEIGNEMENTS ÉCOLOGIQUES

12.1 Écotoxicité
Ce produit peut être toxique pour les poissons et les invertébrés aquatiques. On ne doit toutefois pas exclure que des déversements importants ou fréquents puissent avoir un effet nocif ou dommageable sur l'environnement. Les renseignements ci-dessous sont fondés sur l'ingrédient technique Diméthoate.

Données écologiques

Produits	Espèces	Résultats des tests
Diméthoate	Truite arc-en-ciel	CL_{50} 96 heures – 30,2 mg/L
	Daphnia magna	CE_{50} 48 heures – 2,00 mg/L
	Abeilles domestiques	DL_{50} orale - 0,15 µ/abeille
	Abeilles domestiques	DL_{50} contact - 0,10 µ/abeille

La dérive et le ruissellement peuvent avoir des effets indésirables sur les plantes non visées par le traitement.
Ne pas appliquer directement sur aucun plan d'eau.
Ne pas contaminer l'eau lors de l'élimination des eaux de lavage de l'équipement.
Ne pas appliquer quand les conditions météorologiques favorisent la dérive hors de la zone visée par le traitement.

12.2 Persistance et dégradabilité
Biodégradabilité : Le diméthoate est biodégradable. Il se dégrade rapidement dans l'environnement.

12.3 Potentiel de bioaccumulation
Bioaccumulation : Ne se produit pas.

12.4 Mobilité dans le sol
Potentiellement mobile mais relativement instable.

12.5 Autres effets indésirables
Évaluation : Aucune donnée disponible.

13. ÉLIMINATION

13.1 Méthodes de traitement des déchets

Contenants recyclables : NE PAS réutiliser le contenant à d'autres fins. Ce contenant est recyclable et doit être éliminé à un point de collecte des contenants. Communiquer avec son détaillant/distributeur local ou sa municipalité pour connaître l'emplacement du site de collecte le plus proche. Avant d'emporter le contenant au site de collecte : faire un triple rinçage du contenant, ou le rincer avec de l'eau sous pression, puis disposer des rinçures conformément aux exigences provinciales. Rendre le contenant impropre à toute nouvelle utilisation. S'il n'y a pas de site de collecte dans la région, éliminer le contenant conformément aux exigences provinciales.

Contenants retournables à remplissage multiple :

Le contenant vide doit être retourné au point de vente (distributeur/détaillant) pour élimination. Il doit être rempli de nouveau par le distributeur/détaillant avec le même produit. NE PAS réutiliser ce contenant à d'autres fins.

14. RENSEIGNEMENTS RELATIFS AU TRANSPORT

14.1 Transport terrestre

Description TMD : UN3017, PESTICIDE ORGANOPHOSPHORÉ, LIQUIDE, TOXIQUE, INFLAMMABLE, (DIMÉTHOATE, CYCLOHEXANONE), 6.1, (3) III

Description DOT : RQ UN3017, PESTICIDE ORGANOPHOSPHORÉ, LIQUIDE, TOXIQUE, INFLAMMABLE, (DIMÉTHOATE, CYCLOHEXANONE), 6.1, (3) III GUIDE ERG 131

Classification fret par voie de surface É.-U. : INSECTICIDES OU FONGICIDES, INSECTIFUGES OU RÉPULSIFS, NOI OU EXTERMINATEURS DE VERMINE, ANIMAL OU VOLAILLE, NOI ; POISON (NMFC 102100 ; CLASSE : 77.5)

15. RÉGLEMENTATION

15.1 Réglementation relative à la sécurité, à la santé et à l'environnement

Classement des dangers selon la NFPA et la HMIS:

NFPA				HMIS	
2	Santé	0	Moindre	2	Santé
2	Inflammabilité	1	Légère	2	Inflammabilité
1	Instabilité	2	Modérée	1	Réactivité
		3	Élevée	I	ÉPI
		4	Grave		

Classement des dangers/Signalement SARA

Catégorie de danger SARA III :	Immédiat	O	Feu	O	Relâchement soudain de la pression	N
	Différé	O	Réactif	N		

Quantité à déclarer selon U.S. CERCLA : Diméthoate (CAS : 60-51-5) 10 lb; Cyclohexanone (CAS : 108-94-1) 5000 lb.
SARA, Titre III, section 313 : Diméthoate (CAS : 60-51-5) 45,2 %; Triméthylbenzène (CAS : 95-63-6) 3,2 % maximum ; Xylène (CAS : 1330-20-7) 0,3 % maximum ; Cumène (CAS : 98-82-8) 0,2 % maximum.
Inscription au registre RCRA : P044.
Proposition 65 de la Californie : Sans objet.
SIDMUT (Canada) : Les produits antiparasitaires sont exemptés des lois concernant le SIMDUT. Classés dans la catégorie D2B.
Comité consultatif sur les pesticides de l'Ontario (CCPO) - rencontre 3

Lire l'étiquette homologuée, autorisée en vertu de la *Loi sur les produits antiparasitaires*, avant de manipuler ce produit antiparasitaire.

Ce produit chimique est un produit antiparasitaire homologué par l'Agence de réglementation de la lutte antiparasitaire de Santé Canada et est sujet à diverses exigences d'étiquetage en vertu de la *Loi sur les produits antiparasitaires*. Ces exigences peuvent varier selon les critères de classification et les renseignements sur les dangers potentiels requis pour produire des fiches de données de sécurité uniformes et conformes au SGH. Ci-après, l'élément visuel sur les dangers potentiels devant être affiché sur l'étiquette de ce produit antiparasitaire.

AVERTISSEMENT POISON

16. AUTRES INFORMATIONS

STATUT DE LA FICHE SIGNALÉTIQUE : Révision du format.

PRÉPARÉ PAR : Service de l'intendance et des affaires réglementaires **RÉVISÉ PAR :** Service de santé environnementale et de sécurité

N° D'HOMOLOGATION en vertu de la Loi sur les produits antiparasitaires : 9382

Limitation de responsabilité : Cette fiche signalétique a été rédigée à titre d'information sur les matières constitutives identifiées dans le présent document et ne fait pas référence à l'emploi de celles-ci en combinaison avec tout autre matière ou procédé. Aucune garantie, implicite ou explicite, n'est donnée en ce qui concerne l'exhaustivité ou l'exactitude courante des renseignements contenus dans cette fiche signalétique, et LOVELAND PRODUCTS CANADA, INC. n'assume aucune forme de responsabilité que ce soit découlant de l'usage de ces renseignements. Cette fiche signalétique n'est pas une garantie de sécurité. Les utilisateurs ont la responsabilité de s'assurer qu'ils détiennent tous les renseignements nécessaires pour utiliser de façon sécuritaire le produit décrit dans cette fiche signalétique pour leur usage particulier.