

2011-5024  
2011-11-22

GROUP	<b>1B</b>	INSECTICIDE
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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

GUARANTEE: Dimethoate 480 g/L

REGISTRATION NO. 9382 PEST CONTROL PRODUCTS ACT

LOVELAND PRODUCTS CANADA INC.

789 Donnybrook Drive

Dorchester, Ontario

N0L 1G5

1-800-265-4624

NET CONTENTS: 10 L

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

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 to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's website at: [www.croplife.ca](http://www.croplife.ca).

**DIRECTIONS FOR USE**

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.

**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 pathogens.
- 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, United Agri Products, 1-800-265-4624 or at [www.uap.ca](http://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.

### Product Specific Precautions

If you have questions, call the manufacturer at 1-800-265-4624 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.

### HOUSEFLY CONTROL

#### (for up to 6 weeks) Residual Wall Sprays:

For the control of houseflies in dairy barns, hog pens, calf barns, poultry houses and other farm buildings apply a residual spray to the ceilings, walls, stanchions. Remove livestock and poultry from buildings before spraying. Prepare the spray by mixing 250 mL of LAGON 480 E Insecticide in 10 L of water. Thoroughly wet all fly-resting areas to the point of run-off. Use 5-6 L of spray to cover 100 m<sup>2</sup> of surface. Repeat application when necessary. Good sanitation is an essential part of any effective fly control program. Do not use in homes.

**Spot Sprays:** For localized housefly control in farm buildings, apply a spray containing 200-250 mL of LAGON 480 E Insecticide in 10 L of water. Apply with a knapsack sprayer to doorways, counters and other areas frequented by flies.

**General Outdoor Use:** To control houseflies around garbage cans, animal quarters, food processing plants, warehouses, loading docks and refuse areas, spray exposed surfaces such as walls, fences, refuse containers and garbage, with 1% LAGON 480 E Insecticide solution. Repeat application should be made when necessary. Exposure of sprayed areas to weather, particularly sunshine reduces the duration of residual effects.

### 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. 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 SEASON
Alfalfa (for seed and forage production)	Aphids, Leafhoppers reduction of alfalfa weevil larvae	425 mL	4 mL	2	2
	COMMENTS: Do not graze or harvest for forage within 2 days after application.				
	Blotch leafminers	550 mL	5 mL	2	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.				
	Grasshoppers - nymphs	550 mL	5 mL	2	1
	Grasshoppers -adults or winged	850 - 900 mL	9 mL	7	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.

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.				
Asparagus	Asparagus aphid	2.3 L	35 mL	Not Applicable	6
	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. For immature asparagus, begin application mid-May. Ground application ONLY.				
Barley, Oats, Wheat (ALSO SEE CEREALS below)	Thrips	1 L	10 mL	7	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.				
Beans (Pole, Snap)	Aphids Grasshoppers Leafhoppers Leafminers Mexican bean beetles Mites, Lygus bugs Tarnished plant bugs	700 mL - 1 L	7 - 10 mL	7	3
	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.				
Beets	Tarnished plant bugs	700 mL	7 mL	12	3
	COMMENTS: Ground application ONLY.				
Cauliflower Broccoli Brussels Sprouts	Aphids	700 mL - 1 L	7 - 10 mL	4	3
	Cauliflow er 21 Brussels Sprouts				
COMMENTS: Use sufficient water for good coverage. Repeat applications as necessary. Ground Application ONLY.					
Cauliflower Broccoli	Thrips	550 mL - 1.25 L	6 - 12 mL	4	3
	Apply at 10 day intervals starting at head formation. Ground Application ONLY.				
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.				
Canola (rape)	Aphids Leafhoppers Grasshoppers	850 - 900 mL	9 mL	21	3
	COMMENTS: May be applied by ground and aerial application.				
Celery	Aphids-including carrot green peach foxglove aphids	700 mL	7 mL	3	3

COMMENTS: Begin application 3 weeks after transplanting. Ground application ONLY.

Cereals (barley, oats, wheat, rye)	Grasshoppers	550 mL	5 mL	2	2
	-nymphs, Say stink bugs				
	Grasshoppers	850 mL - 1 L	See comments		2
	-adults				

COMMENTS: 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 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.

Chicory, Chinese Broccoli Bok Choi	Aphids	600 mL - 1 L	6 - 10 mL	7	3
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COMMENTS: Apply in sufficient water for thorough coverage. Use ground application to foliage. Apply when aphids are present. Ground application ONLY.

Eggplant	Tarnished plant bug	500 - 700 mL	5-7 mL	7	2
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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.

Flax	Potato Aphid	437 mL	4 mL	21	1
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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.

Forage crops (grasses, alfalfa, hay, clover)	Aphids	425 - 550 mL	4 - 5 mL	2	2	
	(Only suppression of Russian Wheat aphid is provided)					
	Grasshoppers- low infestations	nymphs	425 - 550 mL		2	2
		adults	550 mL	2		2
			850 mL - 1L	28		2
	Lygus Bug	425 mL	2		2	
	Plant Bug	425 mL	2		2	

COMMENTS: 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.

Leafy Vegetables: Lettuce, Swiss chard, Kale, Beet greens and Turnip greens	Aphids	700 mL	7 mL	(See Below)	2
	Leafhoppers				
	COMMENTS: Ground application ONLY. Use sufficient water for good coverage. Do not use on Head Lettuce. Interval between last application and harvest:				
			7 days	Beet greens	21 days
Lettuce		7 days	Turnip greens	7 days	
Sw	Swiss chard	7 days			
	Kale	7 days			

Peas (canning & field)	Aphids	275 - 425 mL	2.5 - 4 mL	3	2
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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).

Peppers	Aphids, Maggots	700 mL - 1L	7 - 10 mL	3	3
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COMMENTS: Use sufficient water for good coverage. Repeat application as necessary. Ground application ONLY.

Potatoes, Tomatoes (field)	Leafhoppers	Aphids Tarnished plant bugs	550 mL - 1.1 L	5 - 10 mL	7	3
COMMENTS: Use sufficient water for good coverage. Do not apply more than 3 applications per season. Consult local agricultural authorities for proper timing. Ground application ONLY.						
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.						
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.						
Soybeans		Aphids bean beetles leafhoppers tarnished plant bugs, lygus bugs	0.7-1 L	7-10 mL	30	3
(T		Spider mites wo-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.						
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.						
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.						

## FRUIT CROPS:

APPLY WITH GROUND EQUIPMENT ONLY UNLESS OTHERWISE NOTED. FOR DILUTE GROUND APPLICATIONS, USE DESIGNATED AMOUNT OF LAGON 480E IN 1000 LITRES OF WATER UNLESS OTHERWISE SPECIFIED. 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. 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	PESTS CONTROLLED	AMOUNT PER 1000L	AMOUNT PER 10 LITRES	PREHARVEST INTERVALS (DAYS)	MAXIMUM # OF APPLICATIONS PER SEASON
Pears	Tarnished plant bugs COMMENTS: Pears: Apply at pre-bloom.	625 mL	6 mL	14	2
	Pear Psylla COMMENTS: Use sufficient water for good cover spray.	1 - 1.25 L	10 - 12.5 mL	14	2
	Aphids COMMENTS: Use sufficient water for good cover spray.	1 - 1.25 L	10 - 12.5 mL	14	2
	Mites COMMENTS: Use sufficient water for good cover spray.	1 - 1.25 L	10 - 12.5 mL	14	2
Peaches (non-bearing)	Aphids, Mites	1 - 1.5 L	10 - 15 mL	-	2
	Tarnished plant bugs 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.	500 mL	5 mL	-	2
Sour Cherries	Cherry fruit fly maggots COMMENTS: Apply no later than 6 days after the first adult fly has been trapped and repeat in 14 days if required.	500 mL	5 mL	21	2
Sweet Cherries	Cherry fruit fly maggots COMMENTS: Apply no later than 6 days after the first adult fly has been trapped and repeat in 14 days if required.	500 mL	5 mL	21	2
SMALL FRUIT CROPS	PESTS CONTROLLED	AMOUNT PER HECTARE	AMOUNT PER 10 LITRES	PREHARVEST INTERVALS (DAYS)	MAXIMUM # OF APPLICATIONS PER SEASON
Blueberry (Lowbush & Highbush)	Blueberry maggot 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.	600 - 825 mL	6 - 8 mL	15	2
	Tarnished plant bug COMMENTS: Apply first spray when first blooms appear and the second application 10-12 days later if needed.	1.25 L	12.5 mL	7	2

Strawberries (bearing & non-bearing) monthl	Aphids, mites	1 L/ha	10 mL	7	3
COMMENTS: Use sufficient water for good cover spray. Apply when insects first appear and repeat at y intervals as required.					

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.

### ORNAMENTALS

#### GENERAL COMMENTS ORNAMENTAL PLANTS

#### APPLY ONLY WITH GROUND APPLICATION EQUIPMENT

- 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.
- 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.
- 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.
- DO NOT USE on ornamental plants not listed.
- 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.
- 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.
- 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.
- Do not apply foliar spray during the heat of the day or when temperatures are exceedingly high.

OUTDOOR FLOWERING PLANTS	PESTS CONTROLLED	AMOUNTS PER 1000 L OF WATER	AMOUNTS PER 10 L OF WATER
Azaleas Whiteflies	Lace bugs, Leafminers, Mites	1 L	10 mL
Camellias	Aphids, Mites, Camellia scales FOLIAR SPRAYS: Apply 2 sprays 6 weeks apart the first year followed by annual applications soon after first growth begins in the spring. 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.	1 L	10mL
Carnations	Aphids, Thrips, Mites SOIL DRENCH: Apply as a soil drench at the rate of 125 mL per 100 m <sup>2</sup> of bed or bench (12.5 L/ha) in sufficient water for even distribution. Water in thoroughly after application.	1 L	10 mL
Day Lillies	Aphids, Thrips	2 L	20 mL
Euonymus	Aphids, Scales	2 L	20 mL
Gardenias	Tea scales, White flies	1 L	10 mL



Gerberas	Thrips	1	L	10	mL
Gladiolus	Aphids, Thrips	1	L	10	mL
Iris	Aphids, Iris Borers, Thrips For borer control spray when new leaves are 12 to 15 cm tall.	2	L	20	mL
Poinsettias (outdoor plants)	Aphids, White flies, Mites, Mealy bugs	1	L	10	mL
Roses (outdoor plants)	Aphids, Leafhoppers, Mites, Thrips Apply thoroughly every 4 weeks, during growing season in a spray. PAINT ON TREATMENT: Mix 1 part LAGON 480 E with 1 part water. Paint a 2.5 cm band of the mixture around the base of the rose stem. Paint old wood as new growth may be injured. For best insect control, make the first treatment when leaf buds start to swell in the spring and repeat applications as necessary.	1	L	10	mL

**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

Bagworms, European pine  
shoot moths, Nantucket  
pine tip moths, Zimmerman  
pine moths

2 L

20 mL

Arborvitae

Aphids, Bagworms, Mites

2 L

20 mL

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.

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 or 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.

Birch Leafminers                      500                      mL                      5                      mL

PAINT ON TREATMENT: Mix 1 part LAGON 480 E with 1 part of water. Paint the mixture in a band around the trunk below the lowest branch. Change the band location with each application. Do not treat birch trees with trunks less than 3 cm in diameter. Newly transplanted birch trees may be injured. For larger trees, the width of the band should be equal to the thickness of the trunk at the location up to a maximum of 15 cm. Make first application in May when leaf bud tips appear green, and the second application in late June in early season areas, and in early July in cooler areas. Do not make more than two treatments per season.

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.

Cedar

Mites

2

L

20

mL

Douglas-Fir Seed Tree		Cone insects (cone or gall Midge, Cone moth, Seed Chalcid, Scale Midge)	2.5 L in 100 L Apply as a wetting spray or 5 L in 100 L Applied with mist blower			
COMMENTS: Ground 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.						
Hemlock		Mites, Scales, Spruce needle miners Spruce budworms	1 L			10 mL
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.						
Juniper	Aphids,	Bagworms, Midges, Mites	2 L			20 mL
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						
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. PAINT ON TREATMENT: Mix 1 part LAGON 480 E with 1 part water. Apply the mixture in a band 8 cm wide, approximately 30 cm above ground on each stem. Make the first application when first leaves appear, and the second application in late July.						
Oak	Golden	oak scales	2	L	20	mL
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.						
Sitka-Spruce		Sitka-Spruce weevil	25 L		250	mL
COMMENTS: Thoroughly spray the terminal growth to the point of run-off at the time of egg laying (usually during the first half of May).						
Spruce (woodland use)		Seed and cone insects	10.4 - 20.8 L			104 - 208 mL
COMMENTS: Thoroughly spray cone-bearing portions of tree to point of run-off using ground hydraulic spray equipment, when cones are closed and turning but before they reach the horizontal position. Contact your local forest pest control officer for more information on timing and spray application as well as spruce species that may be treated.						
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.						

## 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.

### RESTRICTED USE - AERIAL APPLICATION

TREE	PESTS	CONTROLLED	COMMENTS
Hemlock, Spruce, Balsam fir	applied droplets. soon	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, as a uniform spray of fine Application should be made as as the larvae hatch.

## 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 scrubbing is 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

### Signs and Symptoms:

**MILD CASES:** Headache, fatigue, giddiness, sweating.

**MODERATE CASES:** blurring of vision, nausea, vomiting, tightness of chest, difficulty in breathing, abdominal cramps, diarrhea, salivation.

**SEVERE CASES:** muscular twitching, constriction of pupils (characteristic), coma, convulsions and death.

**DIAGNOSIS** - Clinical picture of above signs and symptoms.

- Reduction of plasma and/or red cell cholinesterase below 50% or normal.

**MEDICAL TREATMENT** - Atropine is antidotal.

**SEVERE CASES:** Atropine 4 mg or 8 mg each intravenously at intervals of 10 - 15 minutes until full atropinization is achieved.

**LESS SEVERE CASES:** Atropine 2 mg - 4 mg intramuscularly at 60 minute intervals. When signs of full atropinization appear, reduce dosage and frequency to 1 mg every 2 - 4 hours. Full atropinization should be maintained for at least 24 hours from beginning of treatment. For children, administer proportionately lower doses based on body weight.

Pralidoxime chloride (2-PAM: PROTOPAM chloride) may be effective as an adjunct to atropine. Use according to label directions.

This product, upon repeated or prolonged use, may cause cholinesterase inhibition. Cyclohexanone is used as a diluent.

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. The user assumes the risk to persons or property that arises from any such use of this product.

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