



GROUP 3 & 4 INSECTICIDES

CONCEPT LIQUID INSECTICIDE

For control of listed insect pests in certain fruit and vegetable crops

COMMERCIAL

Suspension

WARNING EYE IRRITANT



REGISTRATION NUMBER 29611 PEST CONTROL PRODUCTS ACT

ACTIVE INGREDIENT:	Imidacloprid	75 g/L
	Deltamethrin	10 g/L

READ THE LABEL AND BOOKLET BEFORE USING

KEEP OUT OF REACH OF CHILDREN

NET CONTENTS: 1 - 1000 LITRES

Bayer CropScience Inc.
200-160 Quarry Park BLVD., SE
Calgary, Alberta T2C 3G3

For product information and in case of spills, poisoning, fire or other emergencies,
call 1-888-283-6847

CONCEPT LIQUID INSECTICIDE

Table of Contents:

Section Number:

GENERAL INFORMATION

The product 1

SAFETY AND HANDLING

Precautions, Protective Clothing & Equipment, and Re-entry Restriction 2

First Aid and Toxicological Information 3

Environmental Precautions 4

Storage 5

Disposal 6

DIRECTIONS FOR USE

Crop, Insects, Rate and Other 7

Use Restrictions and Limitations 8

Rotational crops 9

Application Precautions 10

Mixing Instructions 11

Pre-harvest Intervals 12

Resistance Management 13

Notices 14

For more information contact:

Bayer CropScience Inc.
200-160 Quarry Park BLVD., SE
Calgary, Alberta T2C 3G3

GENERAL INFORMATION

Section 1: The Product

Concept Liquid Insecticide is a dual action, dispersion concentrate insecticide which provides both contact and systemic activity. Concept Liquid Insecticide provides control of key insect pests in soybeans, fruit and vegetable crops.

SAFETY AND HANDLING

Section 2: Precautions, Protective Clothing and Equipment, and Re-entry Restriction.

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN. Harmful if swallowed or absorbed through the skin. Causes eye irritation. Avoid contact with eyes, skin and clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, or smoking. If product comes in contact with clothing, remove all contaminated clothing, wash skin with soap and water and dress in clean clothing. Launder applicator clothing separate from other laundry. Apply only to agricultural crops when the potential for drift to areas of human habitation and 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.

PROTECTIVE CLOTHING AND EQUIPMENT:

Wear a long-sleeved shirt and long pants, chemical-resistant gloves, and socks and boots during mixing, loading, application, cleanup, and repair. In addition, wear goggles or face shield during mixing, loading, clean-up, and repair. Workers must wear a respirator with either a NIOSH approved organic vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH approved canister approved for pesticides when mixing, loading and applying deltamethrin using mechanically pressurized handgun equipment.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

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 Bayer CropScience Inc. at 1-888-283-6847 or www.cropscience.bayer.ca

Section 3: First Aid and Toxicological Information

FIRST AID:

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 a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control 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 by mouth-to-mouth, if possible. Call a poison control centre or doctor for further 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.

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

TOXICOLOGICAL INFORMATION:

Skin exposure may cause transient sensations (tingling, burning, itching, numbness). Treat symptomatically. Medical Personnel should contact Bayer's Medical Information Services, Toll-Free at 1-800-334-7577.

Section 4: Environmental Precautions

ENVIRONMENTAL PRECAUTIONS:

Highly toxic to fish and other aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE . Do not allow spray drift to come in contact with lakes, streams, rivers, ponds and other aquatic areas.

Do not apply where runoff is likely to occur. Runoff from treated areas may be hazardous to aquatic organisms in neighbouring areas. Do not mix, load or clean spray equipment within 30 metres of wellheads or aquatic systems. To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application 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.

Toxic to small wild mammals.

TOXIC to bees. Minimize spray drift to reduce harmful effects on bees in habitats close to the application site. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. DO NOT apply this product to flowering crops or weeds if bees are visiting the treatment area. To further minimize exposure to pollinators, refer to the complete guidance "Protecting Pollinators during Pesticide Spraying – Best Management Practices" on Canada.ca. Follow crop specific directions for application timing.

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. Deltamethrin may impact predatory and parasitic arthropod species used in IPM programs within the treatment area. Unsprayed refugia for beneficial species of at least 1 metre from treatment area will help maintain beneficial arthropod populations.

Section 5: Storage

STORAGE:

To prevent contamination store this product away from food or feed.

This product cannot be stored below freezing.

If stored for 1 year or longer, shake well before using.

Store the tightly closed container away from feeds, seeds, fertiliser, plants and foodstuffs.

Do not use or store in or around the home.

Keep in original container during storage.

In case of fire, leaking or damaged containers, call toll free 1-800-334-7577.

Section 6: Disposal

RECYCLABLE CONTAINER DISPOSAL:

Do not reuse this container for any 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:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.

2. Make the empty, 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.

DISPOSAL OF UNUSED, UNWANTED PRODUCT:

For information on 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.

DISPOSAL OF UNUSED SPRAY SOLUTION:

If any spray solution remains in the tank after spraying is finished, it should be sprayed on the perimeter of the area just sprayed, away from water supplies, ditches, and irrigation canals.

DIRECTIONS FOR USE

Section 7: Crop, Insects, Rate and Other

Apply Concept Liquid Insecticide only by the method indicated in the DIRECTIONS FOR USE table. When applying Concept Liquid Insecticide, use sufficient water for thorough coverage (i.e., a minimum 100-200 litres of water per hectare using ground equipment and a minimum of 50 litres of water per hectare using aerial application equipment).

Apply once the target pest population has reached economic thresholds according to local recommendations. Repeat application if pest populations reach potentially damaging levels.

Do not exceed the maximum number of applications indicated in the DIRECTIONS FOR USE table.

Do not apply Concept Liquid Insecticide following a seed treatment or soil application of a Group 4 Insecticide.

CROP	INSECT	RATE mL/ha	OTHER
Potato	Colorado potato beetle, Aphids, Leafhopper, Potato flea beetle, Tarnished plant bug, European corn borer (suppression)	650	<p>Apply by ground or aerial equipment. Apply once the target pest population has reached economic thresholds according to local recommendations. Repeat if pest populations reach potentially damaging levels. Allow a minimum of 5 days between applications. Do not apply more than 3 applications of Concept Liquid Insecticide in a year. Application timing of Concept Liquid Insecticide is critical to the control European corn borer. It is recommended to only use Concept Liquid Insecticide to control European corn borer when timing of application coincides with the timing for another pest on the label for potatoes. It is recommended only to use Concept Liquid Insecticide to control tarnished plant bug when timing of application coincides with the timing for another pest on the label for potatoes. Do not apply Concept Liquid Insecticide following a soil application of a Group 4 Insecticide.</p>
Tomato	Colorado potato beetle, Tomato hornworm	650	<p>Ground application only. Apply once the target pest population has reached economic thresholds according to local recommendations. Repeat if pest populations reach potentially damaging levels. Allow a minimum of 5 days between applications. Do not apply more than 3 applications of Concept Liquid Insecticide in a year. It is recommended only to use Concept Liquid Insecticide when targeting both tomato hornworm and Colorado potato beetle at the same time. Do not apply Concept Liquid Insecticide following a seed treatment or soil application of a Group 4 Insecticide.</p>

<p>Head and stem brassica crop sub-group 5A:Broccoli, Chinese broccoli, Brussels sprouts, Cabbage, Chinese cabbage (napa), Chinese mustard cabbage, Cauliflower, Cavalo broccolo, Kohlrabi</p>	<p>Imported cabbageworm, Diamondback moth, Cabbage looper, Crucifer flea beetle, Aphids</p>	<p>650</p>	<p>Ground application only. Apply once the target pest population has reached economic thresholds according to local recommendations. Repeat if pest populations reach potentially damaging levels. Minimum interval between applications: 10 days. Do not apply more than 3 applications of Concept Liquid Insecticide in a year. It is recommended only to use Concept Liquid Insecticide to control cabbage looper, diamondback moth, imported cabbageworm and crucifer flea beetle when the timing of application coincides with the timing for aphids. Do not apply Concept Liquid Insecticide following a seed treatment or soil application of a Group 4 Insecticide.</p>
<p>Blueberry</p>	<p>Blueberry aphid</p>	<p>560</p>	<p>Ground application only. Apply once the target pest population has reached economic thresholds according to local recommendations. Repeat if pest populations reach potentially damaging levels. Allow a minimum of 5 days between applications. Do not apply more than 3 applications of Concept Liquid Insecticide in a year. In low bush blueberries, apply post bloom during fruit producing years and anytime during the vegetative year. In high bush blueberries, apply post bloom. Do not apply Concept Liquid Insecticide following a soil application of a Group 4 Insecticide.</p>
<p>Soybean</p>	<p>Soybean aphid, Bean leaf beetle (suppression), Japanese beetle</p>	<p>325-650</p>	<p>Ground or aerial application. Apply once the target pest population has reached economic thresholds according to local recommendations. Repeat if pest populations reach potentially damaging levels. Allow a minimum of 5 days between applications. Do not apply more than 3 applications of Concept Liquid Insecticide in a year. Do not apply Concept Liquid Insecticide following a seed treatment or soil application of a Group 4 Insecticide.</p>

Section 8: Use Restrictions and Limitations

USE RESTRICTIONS:

When using Concept Liquid Insecticide, do not apply more than three times in a year to support sound resistance management strategies.

For blueberries, do not apply more than 1.68 L of Concept Liquid Insecticide in a year.

For potato, tomato, head and stem brassica crop sub-group 5A and soybean, do not apply more than 1.95 L/ha of Concept Liquid Insecticide in a year.

Do not tank mix Concept Liquid Insecticide with pesticides, fertilizers or any other chemical additives unless recommended on this label.

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

Section 9: Rotational crops

ROTATIONAL CROPS

Treated areas may be replanted with any crop specified on an imidacloprid label, or any crop for which a tolerance exists for the active ingredient, as soon as practical following the last application.

Rotation of fields treated with Concept Liquid Insecticide to cereal grains (wheat, barley, oats) is acceptable after a minimum plant-back interval of 30 days and to peas and beans (including fababeans, soybeans, adzuki beans, mung beans, lima beans, scarlet runners, dry common beans, snap common beans), after a minimum plant-back interval of 9 months.

Rotation to all other food and feed crops will require that a 12 month plant-back interval be observed.

Green manure and other cover crops not intended for human or animal consumption are acceptable rotational crops which do not require a plant-back interval following treatment. Do not graze or harvest such cover crops for food or feed.

Section 10: Application Precautions

APPLICATION PRECAUTIONS:

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

Concept Liquid Insecticide must be applied with properly calibrated, clean equipment.

Do not apply this product through any type of irrigation system.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

To protect pollinators, follow the instructions regarding bees in the Environmental Precautions section.

Apply only when there is a very low risk of drift to areas of human habitation or activity such as houses, cottages, schools and recreational areas. To determine the risk of drift, take into

consideration wind speed, wind direction, temperature, application equipment and sprayer settings.

Buffer Zones:

Use of the following spray methods or equipment DO NOT require a buffer zone: hand-held or backpack sprayer and 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 Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial habitat
			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field Sprayer	Potato		1	1	35	15	1
	Broccoli, Brussels sprout, cabbage, cauliflower		2	1	30	15	1
	Tomato, lowbush blueberry		1	1	25	10	0
	Cavolo broccolo, Chinese broccoli, Chinese mustard cabbage (gai choy), kohlrabi, Napa Chinese cabbage, soybean		1	1	20	10	1
Airblast	Highbush blueberries	Early growth stage	40	30	80	70	2
		Late growth stage	30	20	70	60	1
Aerial	Soybean, Potatoes	Fixed Wing	65	20	800	800	10
		Rotary Wing	45	15	800	600	10

The buffer zones for airblast application of this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the PMRA website. Buffer zones for field sprayer or aerial application CANNOT be modified using the Buffer Zone Calculator.

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

Field sprayer 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 8 km/h at the site of application. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium classification. Air-induction nozzles must be used for the ground application of this product. Boom height must be 60 cm or less above the crop or ground. Observe buffer zones specified under DIRECTIONS FOR USE.

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. Observe buffer zones specified under DIRECTIONS FOR USE.

AERIAL APPLICATION:

Apply Concept Liquid Insecticide by rotary or fixed-wing aircraft 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. Do not use human flaggers.

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 8 km/h at flying height at the site of application. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium-coarse classification. DO NOT apply under weather conditions of less than 50% relative humidity and temperatures greater than 20°C. 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. Observe buffer zones specified under DIRECTIONS FOR USE.

USE PRECAUTIONS FOR AERIAL APPLICATIONS:

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. 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.

Aerial drift is increased under certain meteorological conditions. Do not apply during period of dead calm, when winds are gusty or when wind speed is greater than 16 km/hr at flying height. Overspray and drift to sensitive habitats must be avoided.

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.

OPERATOR PRECAUTIONS FOR AERIAL APPLICATIONS:

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 has 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 differ from the label recommendations for the ground application.

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:

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-888-283-6847 or obtain technical advice from the distributor or your provincial agricultural representative.

Section 11: Mixing Instructions

MIXING INSTRUCTIONS:

Prior to adding Concept Liquid Insecticide to the spray tank, ensure that the spray tank is thoroughly clean.

Add one-half of the required amount of water to the spray or mixing tank and start agitation.

Add the required quantity of Concept Liquid Insecticide to the water and complete filling with water to the required total volume.

Maintain agitation throughout mixing and spraying.

If spray mixture remains in the tank overnight, or for long periods during the day, agitate thoroughly prior to application.

Section 12: Pre-harvest Interval

Do not apply within 7 days of harvest for potato, tomato, and Head and stem brassica sub-group 5A. Do not apply within 14 days of harvest for blueberry. Do not apply within 20 days of harvest for soybean.

Section 13: Resistance Management

RESISTANCE MANAGEMENT RECOMMENDATIONS: For resistance management, please note that Concept Liquid Insecticide contains both Group 3 and Group 4 insecticides. Any insect population may contain individuals naturally resistant to Concept Liquid Insecticide and other Group 3 or Group 4 insecticides. The resistant individuals may dominate the insect population if these insecticides 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 resistance:

- Where possible, rotate the use of Concept Liquid Insecticide or other Group 3 and 4 insecticides with different groups that control the same pests in a field.
- Use tank mixtures with insecticides from a different group when such use is permitted.

- Insecticide use should be based on an integrated pest management (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 or to report suspected resistance contact a Bayer CropScience representative at 1-888-283-6847 or at bayercropscience.com.

Section 14: Notices

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 Products Act* to use this product in a way that is inconsistent with the directions on the label.

For more information contact:

Bayer CropScience Inc.
200-160 Quarry Park BLVD., SE
Calgary, Alberta T2C 3G3

Bayer and Concept are registered trademarks of Bayer.