GROUP 3 4 INSECTICIDES

ENDIGO™

INSECTICIDE

COMMERCIAL

SUSPENSION CONCENTRATE

For the control of insects on soybeans and dried shelled beans.

GUARANTEE:

Thiamethoxam	141	g/L
Lambda-cyhalothrin	106	g/L

Contains 1,2-benzisothiazolin-3-one at 0.054% as a preservative. Contains 2-bromo-2-nitropropane-1,3-diol at 0.03% as a preservative.

READ THE LABEL AND THIS PAMPHLET BEFORE USING KEEP OUT OF REACH OF CHILDREN

DANGER



POISON

CAUTION: EYE AND SKIN IRRITANT

REGISTRATION NO: 30404

PEST CONTROL PRODUCTS ACT

Syngenta Canada Inc.

140 Research Lane, Research Park Guelph, Ontario N1G 4Z3

Telephone: 1-877-964-3682

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

FIRST AID

IF POISONING IS SUSPECTED, IMMEDIATELY contact a doctor or a poison control centre. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

If swallowed, call a poison control centre or doctor **IMMEDIATELY** for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

If on skin or clothing, take off contaminated clothing. Rinse skin **IMMEDIATELY** with plenty of water for 15–20 minutes. Call a poison control 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 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.

TOXICOLOGICAL INFORMATION

In case of poisoning, treat symptomatically. This product contains petroleum distillate; vomiting may cause aspiration pneumonia. In case of exposure to skin of face or other sensitive areas, some individuals may feel a tingling or numbness called paresthesia. This is a transitory effect and does not cause harm to skin.

PRECAUTIONS

- 1. KEEP OUT OF REACH OF CHILDREN AND ANIMALS. Keep unused product in original container tightly closed, locked up and away from food.
- 2. Fatal or poisonous if swallowed. May irritate eyes and skin. Avoid contact with eyes and skin. If hands are contaminated, wash with soap and water before touching other areas of skin. Wear coveralls or long sleeved shirt and long pants, chemical resistant gloves and goggles or face shield when mixing, loading applying and during clean up or repair. Eye protection is not required during application.
- 3. Avoid touching face with contaminated gloves or clothing. Wash gloves before removal. Wash protective equipment with soap and water after each use.
- 4. Do not re-enter treated areas until 12 hours after treatment. Workers shall be given oral warning of the re-entry interval.

ENVIRONMENTAL HAZARDS

Toxic to non-target terrestrial plants. This product contains an active ingredient and aromatic petroleum distillates that are TOXIC to aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE.

Toxic to bees. This product is systemic and residues from soil may be transported through plants into leaves, pollen and nectar. Bees may be exposed directly, through spray drift or to residues on/in leaves, pollen and nectar in flowering crops and weeds. To minimize exposure to bees from foliar application, DO NOT apply this product to flowering crops or weeds if bees are visiting the treatment area. Minimize spray drift to reduce harmful effects on bees in habitats close to the application site.

This product is 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.

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.

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.

STORAGE

Store above 0°C (32°F) in the original container.

Store in a dry, well ventilated area away from feed and foodstuffs and out of the reach of children and animals. Keep away from fire or open flame, or other sources of heat.

SPILL CLEANUP

Wear appropriate protective equipment (gloves, glasses, apron) when attempting to clean up the spill. If the container is leaking, secure leak and place the container into a drum or heavy gauge plastic bag. Contact Syngenta Canada Inc. (See EMERGENCY NUMBER) for further information.

<u>For spills and leaks</u> - contain the liquid with dikes of inert material (soil, clay, kitty litter, etc.). Absorb the spill onto inert material and shovel into a sealable waste container.

On hard surfaces - sprinkle spill area with detergent and scrub in a small quantity of water with a coarse broom. Let stand 10 minutes then absorb onto an inert material and shovel into the waste container. Dispose of all waste, including broom, in accordance with provincial requirements.

On soil - remove the top 15 cm of soil in the spill area and replace with fresh soil. Dispose of all waste in accordance with provincial requirements. For more information on the disposal of waste and the clean up of spills, contact the provincial regulatory agency and the manufacturer.

DECONTAMINATION AND DISPOSAL

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.

CONTAINER DISPOSAL:

Recyclable Container:

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.

IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING, CALL 1-800-327-8633 (FASTMED)

PRODUCT INFORMATION

ENDIGO™ Insecticide is a broad-spectrum foliar insecticide that controls insects through the combination of two active ingredients, thiamethoxam and lambda-cyhalothrin. This product provides effective knockdown and residual control of several economically important pests of soybeans and dry beans.

DIRECTIONS FOR USE

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests. DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

<u>Field sprayer application</u>: 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) medium classification. Boom height must be 60 cm or less above the crop or ground. Use sufficient water for thorough coverage, 100 to 200 L/ha by ground sprayer.

Optimum application timing for the control of specific pest species is best determined by monitoring pest development and populations. In general, ENDIGO Insecticide is most effective against early developmental stages of surface feeding pests and against adults of pests which deposit eggs within plant parts. Follow recommendations provided by local pest monitoring services regarding appropriate application timing for your area. Follow provincial spray calendars for optimum timing of programmed spray applications.

Clean and decontaminate protective clothing and application equipment regularly.

AERIAL APPLICATION

Generic Aerial Application Label Instructions - Directions for Use

Apply only by fixed-wing or rotary aircraft equipment that 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.

Use Precautions

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.

Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas. Specified buffer zones should be observed.

Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

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 generic 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

Read and understand the entire label before using this product.

For aerial applications, ensure the aircraft is equipped and calibrated to deliver a uniform spray coverage with a minimum potential for drift. To ensure uniform application, use an appropriate marking device. Apply in weather conditions that will not promote drift. Suggested conditions for good aerial application are moderate temperatures (less than 25 °C), moderate relative humidity (greater than 40%), and light winds (3 to 9 kph).

Use only medium or coarse nozzles rated as delivering droplets of volume median diameter of 300 microns or greater. Examples: 6506 flat fan, CP 0.125 deflector nozzle with a low shear deflector angle (30 degrees), D12-56 disc-core.

Apply in a spray volume of 20 to 50 litres per hectare. Use water volumes at the higher end of this range to ensure good coverage for optimum insect control and to minimize drift.

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 flying height at the site of application. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium 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.

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 terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of Crop application		Buffer Zones (metres) Required for the Protection of:					
		Freshwater Habitats of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial Habitats	
			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field sprayer	Soybeans and shelled beans		15	15	15	15	1
Aerial	Soybeans and shelled beans	Fixed wing	275	30	800	800	15
		Rotary wing	225	25	800	800	15

USE DIRECTIONS

CROPS	SOYBEANS
	DRIED SHELLED BEANS (Phaseolus spp., Lupinus spp., Vigna spp., dry
	fava beans, dry lablab beans and chickpeas)
PEST	Soybean aphids, Bean leaf beetle
PRODUCT RATE (mL/ha)	180
APPLICATION METHOD	Ground application
APPLICATION TIMING	The need and timing of application should be based on the presence of vulnerable pest developmental stages and significant populations as determined by local monitoring. Soybean aphids: use the higher rate when conditions favour rapidly increasing aphid populations. Bean leaf beetle: Repeat sprays at a minimum of 7 day intervals depending on the presence of significant populations as determined by local monitoring. Consult local agricultural personnel and provincial guidelines on the use of this
	product.
NOTES	Soybeans: Do not apply within 30 days of harvest. Dried shelled beans: Do not apply within 21 days of harvest. Allow at least 7 days between treatments. DO NOT use more than 3 applications per season. DO NOT graze or harvest treated forage, straw or hay for livestock feed. DO NOT apply this product within 45 days of planting if seeds were treated with a neonicotinoid product. DO NOT exceed a total of 540 mL/ha of ENDIGO Insecticide per season. Do not exceed a total of 84 g a.i. of lambda-cyhalothrin containing products per season. Water volume: For ground application: 100 to 200 L/ha.
	For aerial application: apply in minimum spray volume of 20 L/ha.

Resistance-Management Recommendations

For resistance management, please note that ENDIGO Insecticide contains Group 3 and Group 4 insecticides. Any insect population may contain individuals naturally resistant to ENDIGO Insecticide and other Group 3 or 4 insecticides. The resistant individuals may dominate the insect population if this group of 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 ENDIGO Insecticide or other Group 3 or 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 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 Syngenta Canada Inc. company representatives at 1-87-SYNGENTA (1-877-964-3682) or at www.syngenta.ca.

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