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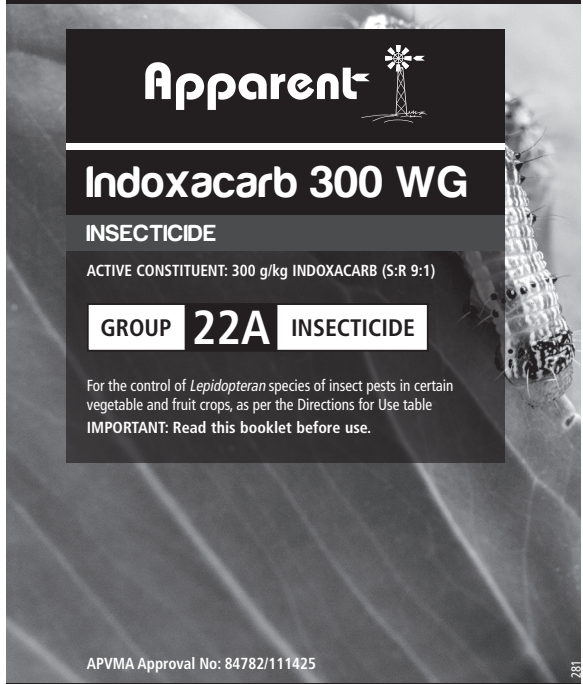
POISON
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING



Apparent

Indoxacarb 300 WG

INSECTICIDE

ACTIVE CONSTITUENT: 300 g/kg INDOXACARB (S:R 9:1)

GROUP 22A INSECTICIDE

For the control of *Lepidopteran* species of insect pests in certain vegetable and fruit crops, as per the Directions for Use table

IMPORTANT: Read this booklet before use.

APVMA Approval No: 84782/111425

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DIRECTIONS FOR USE:

Restraints

DO NOT apply if rainfall is expected within 2 hours of application.
DO NOT use on container, hydroponic, greenhouse or glasshouse grown crops.
DO NOT apply within 20 m upwind of water bodies.
DO NOT apply by aircraft (tomatoes excepted).
DO NOT apply less than 300 m (aerial application) or 80 m (ground application) upwind of land potentially producing feed for livestock. If the wind direction is at an angle with regard to the field then the in-field buffer must be observed on both upwind sides of the feed producing land.

ENSURE YOU READ THE PROTECTION STATEMENTS BEFORE APPLYING THE PRODUCT.

CROP	PEST	RATE	CRITICAL COMMENTS.
Broccoli, Brussels sprouts, Cabbage (closed head varieties only), Cauliflower	Cabbage white butterfly (*Pieris rapae*), Cotton Bollworm (*Helicoverpa armigera*), Native budworm (*Helicoverpa punctigera*)	170 g/ha	Use in accordance with AIRAC Insecticide Resistance Management Strategy guidelines. Apply as egg and larvae reach threshold numbers. Contact the local Department of Agriculture or consultant for further information on management of Diamondback Moth. Thorough coverage is essential. Adjust water volumes to crop stage (200 – 1000 L/ha). Refer to Surfactant/Wetting agent section. For Cabbage Centre grub time sprays early to ensure larvae are exposed to treatment before they become entrenched in protected feeding sites. For best results, it is recommended that up to 3 applications of Apparent Indoxacarb 300 WG Insecticide to be made sequentially as thresholds dictate. A maximum of 4 applications can be made to any one crop. **DO NOT** retreat within seven (7) days. Further treatment should be made with alternative mode of action insecticides.
	Cluster caterpillar (*Spodoptera litura*), Cabbage center grub (*Hellula hydralis*), Diamondback moth (*Plutella xylostella*)	250 g/ha	
Leafy vegetables: Chicory, Cress, Endive, Fennel, Kale, Lettuce: closed head and leafy varieties; Mustard, Silverbeet, Spinach, and **Chinese leafy vegetables:** Bok Choy, Choy sum, Chinese cabbage	Cotton bollworm (*Helicoverpa armigera*), Native budworm (*Helicoverpa punctigera*)	170 g/ha	**FOR ALL CROPS** Regularly scout crops to monitor for eggs and larvae. Target sprays against eggs and newly hatched larvae before they become entrenched. Use enough water to ensure thorough coverage of the crop. Adjust water volumes to crop stage (200-1000) L/ha). Refer to Surfactant/Wetting agent section. Apply a maximum of 3 applications to any one crop. **DO NOT** retreat within seven (7) days. Further treatments should be made with alternative mode of action insecticides. As part of an Insecticide Resistance Management programme for cotton bollworm, it is important to plough crops immediately after harvest. **CAPSICUM, EGGPLANT, PEPPERS, TOMATO** - USE 250 g/ha during periods of heavy Heliothis pressures or when using aerial application (Tomatoes only).
Capsicum, Eggplant Peppers, Tomato (trellis and field)	Cotton Bollworm (*Helicoverpa. armigera*), Native Budworm (*Helicoverpa punctigera*)	170 or 250 g/ha or 17 g/100 L dilute	
	Potato moth (Tomato leaf miner) (*Phthorimaea operculella*)	170 g/ha or 17 g/100 L dilute	

CROP	PEST	RATE	CRITICAL COMMENTS.
Apples, Nashi pear, Pears	Apply by dilute or concentrate spraying equipment. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. Refer to Application section of the label.		
	Coding moth (*Cydia pomonella*), Budworms (*Helicoverpa* spp).	**Dilute spraying:** 25 g/100 L water **Concentrate spraying:** Refer to Mixing/Application section	Thorough fruit coverage is essential. A maximum of 6 applications of Apparent Indoxacarb 300 WG Insecticide are to be applied at 10 day intervals commencing at petal fall (or before 80 Degree Days after codling moth are detected in traps) until late December. Further treatments should be made with alternate mode of action insecticide. The above programme, when commenced at petal fall, will also control budworms.
	Lightbrown apple moth (*Epiphyas postvittana*)	**Dilute spraying:** 12.5 g/100 L water **Concentrate spraying:** Refer to Mixing/Application section	Thorough fruit coverage is essential. A maximum of 6 applications of Apparent Indoxacarb 300 WG Insecticide are to be applied at 14 day intervals commencing at petal fall or apply at 140 Degree Days after Lightbrown apple moths are detected in traps. Best results are obtained when Apparent Indoxacarb 300 WG Insecticide treatments are applied consecutively. Further treatments should be made with alternative mode of action insecticides.
	Weevils: Apple weevil (*Otiorhynchus cribicollis*), Fuller's Rose weevil (*Asynonychus cervinus*), Garden Weevil (*Phlyctinus callosus*)		Monitor weevil emergence. Garden weevil usually emerges late October to late November. Apple weevil and Fuller's Rose weevil usually emerge late November to late December. **Garden weevil and Apple weevil:** Prevent damage by treating early in the stage of emergence. **Fuller's Rose weevil:** Spray after peak weevil emergence when leaf damage is obvious. Thorough coverage is essential. Continue monitoring after spraying. For weevils there is a maximum of 2 applications per season. **DO NOT** retreat within ten (10) days. **DO NOT** use for more than 2 consecutive seasons.
	Wingless grasshopper (*Phaulacridium vittatum*)	**Dilute spraying:** 25 g/100 L water **Concentrate spraying:** Refer to Mixing/Application section	Spray when local thresholds have been reached and damage is being observed. Thorough coverage is essential. **DO NOT** retreat within ten (10) days.
Apricot , Nectarine, Peaches, Plums	Apply by dilute or concentrate spraying equipment. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. Refer to Application section of the label.		
	Budworms (*Helicoverpa* spp.)	**Dilute spraying:** 25 g/100 L water **Concentrate spraying:** Refer to Mixing/Application section	Target sprays against eggs and newly hatched larvae before they become entrenched. A maximum of 3 applications of Apparent Indoxacarb 300 WG Insecticide is to be applied at 10 day intervals to each crop. Further treatments should be made with alternative mode of action insecticides (non-group 22A). Thorough coverage is essential. Best results are obtained with Apparent Indoxacarb 300 WG Insecticide treatments are applied consecutively.
	Oriental fruit moth (*Grapholita molesta*)		Thorough coverage is essential. When treating the first generation, apply the initial treatment before 110 Degree Days after Oriental fruit moths are detected in traps. A maximum of 3 applications of Apparent Indoxacarb 300 WG Insecticide is to be applied at 10 day intervals to each crop. Target sprays against eggs and newly hatched larvae before they become entrenched. Best results are obtained when Apparent Indoxacarb 300 WG Insecticide treatments are applied consecutively. Further treatments should be made with alternative mode of action insecticides.

CROP	PEST	RATE	CRITICAL COMMENTS.
Apricot, Nectarine, Peaches, Plums (continued)	Lightbrown apple moth (*E. postvittana*)	**Dilute spraying:** 12.5 g/100 L water **Concentrate spraying:** Refer to Mixing/Application section	Thorough fruit coverage is essential. A maximum of 3 applications of Apparent Indoxacarb 300 WG Insecticide are to be applied at 14 day intervals commencing at 140 Degree Days after Lightbrown apple moths are detected in traps. Best results are obtained when Apparent Indoxacarb 300 WG Insecticide treatments are applied consecutively. Further treatments should be made with alternative mode of action insecticides.
	Weevils: Apple weevil (*Otiorhynchus cribicollis*), Fuller's Rose weevil (*Asynonychus cervinus*), Garden weevil (*Phlyctinus callosus*)		Monitor weevil emergence. Garden weevil usually emerges late October to late November. Apple weevil and Fuller's Rose weevil usually emerge late November to late December. Garden weevil and Apple weevil: Prevent damage by treating early in the stages of emergence. Fuller's Rose weevil: Spray after peak weevil emergence when leaf damage is obvious. Thorough coverage is essential. Continue monitoring after spraying. For weevils there is a maximum of 2 applications per season. Do not retreat within ten (10) days. **DO NOT** use for more than 2 consecutive seasons.
	Wingless grasshopper *(Phaulacridium vittatum)*	**Dilute spraying:** 25 g/100 L water **Concentrate spraying:** Refer to Mixing/Application section	Spray when local thresholds have been reached and damage is being observed. Thorough coverage is essential. **DO NOT** retreat within ten (10) days.
Grapes	Apply by dilute or concentrate spraying equipment. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. Refer to Application section of the label.		
	European earwig (*Forficula uricular*) (suppression only)	**Dilute spraying:** 17 g/100 L water **Concentrate spraying:** Refer to Mixing/Application section	Only apply treatments if damage is likely to occur. Thorough coverage is essential. Continue monitoring after spraying. **DO NOT** retreat within ten (10) days. **DO NOT** apply after pre-bunch closure (growth stage EL31).
	Garden weevil (*Phlyctinus callosus*)		Monitor weevil emergence. **Delay application until damage in the canopy is observed.** This is usually late October to Late November for garden weevil. Thorough coverage is essential. Continue monitoring after spraying. For garden weevil there is a maximum of 2 applications per season. **DO NOT** apply after pre-bunch closure (growth stage EL31).
	Grapevine moth (*Phalaenoides glycinae*)	D**ilute spraying:** 8 g/100 L water **Concentrate spraying:** Refer to Mixing/Application section	Spray when local thresholds have been reached. Thorough coverage is essential. **DO NOT** retreat within ten (10) days. **DO NOT** apply between pre-bunch closure (growth stage EL31) and harvest. Post harvest infestations can be treated.
	Inland Katydid (*Caedicia simplex*)		Spray when local thresholds have been reached. Thorough coverage is essential. **DO NOT** retreat within ten (10) days. DO NOT apply between pre-bunch closure (growth stage EL31) and harvest.
	Lightbrown apple moth (*E. Postvittana*)	**Dilute spraying:** 17 g/100 L water **Concentrate spraying:** Refer to Mixing/Application section	Applications to be timed for egg hatch (140 Degree Days after a detected moth flight). Thorough fruit coverage is essential. A maximum of 3 applications of Apparent Indoxacarb 300 WG Insecticide to be applied to each crop, with 2 applications at flowering and fruit set (depending on pest pressure as assessed by crop scouting). **DO NOT** retreat within ten (10) days. A final application may be applied up to bunch closure. **DO NOT** apply after bunch closure. Further treatments should be made with alternative mode of action insecticides.
	Wingless grasshopper (*Phaulacridium vittatum*)		Spray when local thresholds have been reached and damage is being observed. Thorough coverage is essential. **DO NOT** retreat within ten (10) days. **DO NOT** apply between pre-bunch closure (growth stage EL31) and harvest.
	Concentrated spray: DO NOT apply in volumes less than 400 L/ha. This low water volume is dependent on the suitability of concentrated spray application equipment. More reliable application may be gained through increased water volumes.		

NOT TO BE USED FOR ANY PURPOSE OR IN ANY MANNER CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.

WITHHOLDING PERIODS

HARVEST

Capsicum, eggplant, leafy vegetables, peppers, tomatoes, (field and trellis): DO NOT APPLY LATER THAN 3 DAYS BEFORE HARVEST.

Broccoli, brussels sprouts, cabbage, cauliflower: DO NOT APPLY LATER THAN 7 DAYS BEFORE HARVEST.

Apricot, nectarine, peach, plum: DO NOT APPLY LATER THAN 7 DAYS BEFORE HARVEST.

Apples, nashi pears, pears: DO NOT APPLY LATER THAN 14 DAYS BEFORE HARVEST.

Grapes: DO NOT APPLY LATER THAN 8 WEEKS BEFORE HARVEST. DO NOT HARVEST TREATED GRAPE LEAVES FOR HUMAN CONSUMPTION.

GRAZING – ALL TREATED CROPS

DO NOT ALLOW LIVESTOCK TO GRAZE CROPS OR VEGETABLE WASTE (EXCEPT TOMATO POMACE) THAT HAS BEEN TREATED WITH APPARENT INDOXACARB 300 WG INSECTICIDE.

EXPORT STATEMENT: **Import tolerances for produce treated with Apparent Indoxacarb 300 WG Insecticide may be pending in some countries. Consult with your exporter or Apparent Pty Ltd before applying Apparent Indoxacarb 300 WG Insecticide to export crops.**

GENERAL INSTRUCTIONS

Apparent Indoxacarb 300 WG Insecticide has been specifically designed for use in Integrated Pest Management (IPM) schemes. Apparent Indoxacarb 300 WG Insecticide is an oxadiazine insecticide in the form of a water dispersible granule. It is particularly active on Lepidopteran insect pests, primarily as a larvicide. Before application monitor insect populations to determine whether or not there is a need for application of Apparent Indoxacarb 300 WG Insecticide based on locally determined economic thresholds. More than one treatment of Apparent Indoxacarb 300 WG Insecticide may be required to control a population of pests.

INSECTICIDE RESISTANCE WARNING

GROUP 22A INSECTICIDE

For insecticide resistance management Apparent Indoxacarb 300 WG Insecticide is a Group 22A insecticide. Some naturally occurring insect biotypes resistant to Apparent Indoxacarb 300 WG Insecticide and other Group 22A insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if Apparent Indoxacarb 300 WG Insecticide or other Group 22A insecticides are used repeatedly. The effectiveness of Apparent Indoxacarb 300 WG Insecticide on resistant individuals could be significantly reduced. Since the occurrence of resistant individuals is difficult to detect prior to use Apparent Pty Ltd accepts no liability for any losses that may result from the failure of Apparent Indoxacarb 300 WG Insecticide to control resistant insects. Apparent Indoxacarb 300 WG Insecticide may be subject to specific resistance management strategies. To help prevent the development of resistance to Apparent Indoxacarb 300 WG Insecticide, use Apparent Indoxacarb 300 WG Insecticide in accordance with the current Insecticide Resistance Management (IRM) Strategy for your region. For further information contact your local supplier, Apparent Pty Ltd representative or local department agronomist.

PRODUCT USE

Mixing

Always add dry Apparent Indoxacarb 300 WG Insecticide to water in tank. **DO NOT** premix or slurry. With the exception of products in water-soluble bags, Apparent Indoxacarb 300 WG Insecticide must be in suspension in the tank before adding companion products or surfactant.

Fill spray tank to ¼ to ½ full of water. Measure the amount of Apparent Indoxacarb 300 WG Insecticide required for the area to be sprayed. Add Apparent Indoxacarb 300 WG Insecticide directly to the spray tank with the agitation engaged. Mix thoroughly to disperse the insecticide. Once dispersed, the material must be kept in suspension at all times by continuous agitation. Use mechanical or hydraulic means, **DO NOT** use air agitation, pre-mix or slurry.

If spray solution is left standing, ensure thorough re-agitation of the spray mix until fully resuspended. **DO NOT** allow spray mix to sit overnight, as re-suspension may be difficult.

Surfactant/Wetting Agent

Apricots, Apples, Capsicum, Eggplant, Grapes, Leafy vegetables, Nashi Pears, Nectarines, Peaches, Pears, Peppers, Plum, Tomatoes: Use a non-ionic surfactant/wetting agent at 15 g active/100 L, (e.g. Agral® 600 @ 125 ml/100 L or Citowett® @ 75 mL/100 L).

Broccoli, Brussels sprouts, Cabbage, Cauliflower: Use a non-ionic surfactant/wetting agent at 75 g active/100 L, (e.g. Agral 600 @ 125 mL/100 L or Citowett @ 75 mL/100 L).

DO NOT add a non-ionic surfactant/wetting agent if:

- Mixing with another product which already contains a surfactant and/or the product label advises not to add a surfactant.
- Mixing with a liquid fertilizer.

DO NOT use BS100® or Activator-90® as it may cause crop phytotoxicity.

APPLICATION

Minimizing Spray Drift

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator must consider all these factors when making application decisions.

The most effective way to reduce drift potential is to apply large droplets (volume mean diameter (VMD) > 150 – 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. **APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT MINIMISE DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVOURABLE ENVIRONMENTAL CONDITIONS.**

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

Dilute Spraying

- Use sprayer designed to apply high volumes of water up to the point of run-off and matched to crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy. Apply sufficient water to cover the crop to the point of run-off. Avoid excessive run-off.
- The required volume may be determined by applying different test volumes, using different settings on the sprayer, from industry guidelines or expert advice.
- Add the amount of product specified in the Directions for Use table for each 100L of water. Spray to the point of run-off.
- The required dilute spray volume will change and the sprayer set up and operation may also need to be changed, as the crop grows.

Concentrate Spraying

- Use a sprayer designed and set up for concentrate spraying (that is a sprayer which applies water volumes less than those required to reach the point of run-off) and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume.
- Determine an appropriate dilute spray volume (See Dilute Spraying above) for the crop canopy. This is needed to calculate the concentrate mixing rate.

The mixing rate for concentrate spraying can be calculated in the following way:

EXAMPLE ONLY

1. Dilute spray as determined above: for example 1,500 L/ha
2. Your chosen concentrate spray volume: For example 500 L/ha
3. The concentration factor in this example is 3X (i.e. 1,500 L + 500 L = 3)

- If the dilute label rate is 25 g/100 L, then the concentrate rate becomes 3x25, that is 75 g/100 L of concentrate spray. The chosen spray volume, amount of product per 100L of water, and the sprayer set up and operation may need to be changed as the crop grows.
- For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

Ground Application

Use a boom sprayer fitted with high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets. Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size, **DOES NOT** improve canopy penetration and may increase drift potential. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.** Use nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-application drift nozzles. When applying Apparent Indoxacarb 300 WG Insecticide by ground application, keep the boom low to avoid spray drift. For orchard/vineyard sprayers avoid directing spray above trees and always turn-off outward pointing nozzles at row ends and out rows.

Compatibility

Since formulations may be changed and new ones introduced, it is recommended that users premix a small quantity of the desired tank mix and observe possible adverse changes (setting out, flocculation etc). Avoid complex tank mixtures of several products or very concentrated spray mixtures. Apparent Indoxacarb 300 WG Insecticide is compatible with Captan, Dithianon, Mancozeb, Propargite, Metiram and Myclobutanil.

The mixing sequence recommended is: water soluble bags, dry flowable or water dispersible granules (Indoxacarb 300 WG Insecticide), wettable powders, water based suspension concentrates, water soluble concentrates, oil based suspension concentrates, emulsifiable concentrates, adjuvants and surfactants, soluble fertilizers.

Spray Equipment Cleanout

Prior to application, start with clean, well maintained application equipment. Immediately following application, thoroughly clean all spray equipment to reduce risk of forming hardened deposits that might become difficult to remove. Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom, and nozzles with clean water. Loosen and physically remove all visible deposits. Clean all other associated application equipment.

PRECAUTIONS – RE ENTRY PERIOD

DO NOT allow entry into treated areas until spray has dried. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrists, a washable hat and chemical resistant gloves. Clothing must be laundered after each day's use.

PROTECTION OF LIVESTOCK

Dangerous to bees. DO NOT apply when bees are actively foraging. Avoid direct application or drift of the spray mix onto beehive. After the spray has dried, bees can safely forage flowering crops. **AVOID SPRAY DRIFT ONTO ADJOINING PROPERTIES OR STOCK AREAS.**

Assess the treatment area before application to identify animal exposure risks. Avoid aerial application if possible.

Observe the buffer zones for aerial and ground application. If unexpected conditions cause spray drift to contaminate land that livestock could potentially graze seek advice from Apparent Pty Ltd.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto near-by non-target plants/crops, cropping lands or pastures.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Do not contaminate streams, rivers or waterways with the chemical or used containers.

STORAGE AND DISPOSAL

Store in the closed original container in a cool, dry, well-ventilated area. Do not store for prolonged periods in direct sunlight. Store in a locked room or place away from children, animals, food, feedstuffs and fertilizers.

(FOR HDPE CONTAINERS) Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging for appropriate disposal to an approved waste management facility. If an approved waste management facility is not available bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers and product.

(FOR PLASTIC AND FOIL BAGS) Single-rinse or shake remainder into spray tank/water/dip/drench, etc. Do not dispose of undiluted chemicals on site. Puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

SAFETY DIRECTIONS

Harmful if swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. If product in eyes, wash it out immediately with water. Wash hands after use. When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrists, a washable hat, elbow-length PVC gloves and a face shield or goggles. When using the prepared spray, wear cotton overalls buttoned to the neck and wrists, a washable hat and elbow-length PVC gloves. After each day's use wash gloves, face shield or goggles and contaminated clothing.

FIRST AID

If poisoning occurs contact a doctor or Poisons Information Centre. Phone Australia 13 11 26.

SAFETY DATA SHEET

Additional information is listed in the Safety Data Sheet (SDS), which can be obtained from the supplier.

CONDITIONS OF SALE

The use of Apparent Indoxacarb 300 WG Insecticide being beyond the control of the manufacturer no warranty expressed or implied is given by Apparent Pty Ltd regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Apparent Pty Ltd accepts with no responsibility for any consequences whatsoever resulting from the use of this product.