

LION-20% WDG

PUBLIC HEALTH INSECTICIDE
WATER DISPERSIBLE GRANULES

VAPCO

Class:
Oxadiazine

public health insecticide with non-repellent activity ensures longer insect contact with the treated surfaces and efficient pick-up of insecticide, enhancing control. additionally, it has a late death feature . As a consequence, insects, will carry the insecticide back to their harborage area and transfer it to other insects by contact causing eradication of the insect population especially for cockroaches and ants.

COMPOSITION: Each kg contains:

INDOXACARB

20% W/W (A.I)

PROPERTIES:

LION-20% WDG: Public health insecticide which belong to oxadiazine class which is alternative of pyrethroids group.

LION-20% WDG: It has a late death feature.

LION-20% WDG: Blocking of pest's nervous system leads to paralysis and death.

LION-20% WDG: Can be applied both indoors and outdoors which offers highly effective residual control for public health insects on all treated surfaces.

USES AND APPLICATION RATE:

TARGET AREA	TARGET PESTS	APPLICATION RATE / SPRAYER TYPE	DIRECTION USE /LOCATION / DILUTION RATE/ AREA COVERED	NOTES
Residential buildings Schools Institutional commercial and facilities (including warehouses, apartments, supermarkets, restaurants, motels, hotels, hospitals, daycare facilities, food-handling /storage/ processing establishments and zoos). Transportations equipment, such as aircraft, trains, ships, boats, and buses.	Ants	50-100 gm. / 20 lt water, by using coarse low-pressure spray For heavy infestations use the maximum application rate.	Indoors: Use spot or crack and crevice treatment at maximum rate 4 lt dilution / 93 m ² to targets infested areas or areas suspected to be infested. - Treat pest entry sites, attics, wall voids, behind cabinets or equipment, under counters or appliances, along baseboards and reticulation systems. Outdoors: - Use Spot or crack and crevice treatment. - Treat ant nests by using 4-8 lt. dilution / mound	- For crack and crevice or spot applications only apply by using ULV equipment such as a Micro Injector or Actisol machine - Ants contacting hard surfaces recently treated may transfer lethal doses to other (untreated) ants. - Exposures to the pesticide deposits on porous or non-porous are still effective at killing ants. - Treat Surfaces commonly used by ants for foraging such as outdoor edges/frames of windows, doors, roof lines or Eaves, and other structural edges may also be treated.

• For more details about first aid & precautions please refer to first aid & precautions index.

TARGET AREA	TARGET PESTS	APPLICATION RATE / SPRAYER TYPE	DIRECTION USE / LOCATION / DILUTION RATE/ AREA COVERED	NOTES
	Cockroaches	50-100 gm. / 20 lt water by using coarse low-pressure spray. For heavy infestations use the maximum application rate.	<p>Indoors Use Spot or crack and crevice treatment at maximum rate 4 lt dilution / 93 m² to target areas of cockroach infestation or areas known or suspected to be cockroach sites.</p> <p>Outdoors Use Spot or crack and crevice treatment to general surface or perimeter banded treatment to control or prevent cockroach infestations</p>	<p>- For crack and crevice or spot applications only apply by using ULV equipment such as a Micro Injector or Actisol machine</p> <p>- Spot or crack and crevice applications can be made to areas including pest entry sites, wall voids, behind cabinets or equipment, under counters or appliances, and Along baseboards and reticulation systems.</p> <p>- Apply in cockroach infestations sources such as harborage areas around the structure or where pests are likely to enter or rest, such as utility entry points, weep holes, eaves of structures, around windows or doors, or around lights.</p> <p>- Apply to exterior structural elements and outdoor breeding sites, such as refuse collection areas, loading docks, adjacent tree holes, crawl spaces, or other</p>
	Fleas (larvae and adults)	50-100 gm. / 20 lt water For heavy infestations use the maximum application rate.	<p>Indoors: Spot treatment around pet bedding areas and other known breeding areas of adult or larval fleas.</p> <p>Outdoors: Direct application as spot or broadcast treatment within perimeter of structures known to harbor fleas.</p> <p>Use 8- 15 lt dilution / 93 m² will provide better coverage in most outdoor substrates, such as lawn, mulch, and flea breeding areas.</p>	<p>-----</p> <p>- Spray target areas where pets or other animals tend to rest, particularly shady moist areas where fleas can survive and develop.</p> <p>- Can be used with insect growth regulator in combination to improve the control of fleas.</p>

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TARGET AREA	TARGET PESTS	APPLICATION RATE / SPRAYER TYPE	DIRECTION USE /LOCATION / DILUTION RATE/ AREA COVERED	NOTES
	Flies (House flies & Fruit flies)	50-100 gm. / 20 lt water For heavy infestations use the maximum application rate.	Indoors: - Apply as a crack and crevice or spot application to fly resting areas at maximum rate 3.8 lt dilution / 93 m ² Outdoors: - Apply as a spot or surface/broadcast application directly to flies or to fly resting areas (Using of higher volume 8- 15 lt dilution /93 m ² will provide better coverage.)	- Applied to hard surfaces (non-porous or indoor-type environments) it is effective in controlling house flies and fruit flies.] -----
	Beetles, Bugs, Carpet moths, Earwigs, Grasshoppers, Silverfish, cricket	50-100 gm. / 20 lt water By using a coarse, low-pressure spray as For heavy infestations use the maximum application rate.	Indoors: Spot or Crack and crevice treatment at 4 lt dilution / 93 m ² Outdoors: Spray as a spot, crack and crevice and for heavy infestations use high volume of dilution.	- Direct applications can be made to areas including pest entry sites, attics, wall voids, behind cabinets or equipment, under counters or appliances, along baseboards, storage rooms, garage areas, basements and reticulation systems. - Apply around the structure or where pests are likely to enter or rest, such as utility entry points, eaves of structures, around windows or doors, or around lights.
	Stored Product Insect Pests (beetles, weevils and moth)	50-100 gm. / 20 lt water	Apply as a crack-and crevice or spot treatment at a maximum volume of dilution 4 lt dilution / 93 m ² infested areas.	Before application, remove infested food materials. Focus on cracks in food storage areas, closets, cabinets, shelving, baseboards, and other areas where Products are stored or used for transport. Direct application to pantry insect pests will provide best results. Remove or cover any remaining food items or food-serving surfaces. Do not apply directly to food or feed.

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TARGET AREA	TARGET PESTS	APPLICATION RATE / SPRAYER TYPE	DIRECTION USE /LOCATION / DILUTION RATE/ AREA COVERED	NOTES
	Subterranean Termites	50-100 gm. / 20 lt water For heavy infestations use the maximum application rate.	Indoors and outdoors: 1. Spot treatment: by using coarse low-pressure spray 4 lt dilution / 1 m ² applied in and around structures to kill active termites. 2. Foam treatment: - For wall voids and spot application use 25: 1 (foam:dilution) ratio - For subsurface application use range of 5:1 to 15:1 (foam: dilution) ratio 3. Treatment of poles and stumps of trees: Apply spot application by using 3 -8 lt dilution.	- LION-20% WDG will kill workers and winged reproductive forms of termites present at the time of spot application only. - Application of LION-20% WDG will not provide structural protection nor substitute for mechanical Alteration, soil or foundation treatment with termiticide. - This product is not to be used as sole protection against termites as it is not designed to offer Structural protection and will not prevent future infestations. - This product will not eliminate termite infestations or provide protection against future infestations. - When using foam treatment, the foaming agent that used should be non-repellent to the target species - Do not treat bearing fruit or nut trees.
	Drywood Termites	100 gm. / 20 lt water	Indoors and outdoors: 1. apply the pesticide using the recommended application rate. 2. Foam treatment: - For wall voids and spot application use 25: 1 (foam:dilution) ratio - For subsurface application use range of 5:1 to 15:1 (foam: dilution) ratio 3. Wood Injection: 50 ml of dilution to each injection hole.	- Apply LION-20% WDG to termite infestation in damaged wood, and/or in spaces between wood and foundations. - Locate termite infestation by using visual signs like fresh fecal pellets or blistered wood. - Wood Injection Method: 1. Drill small diameter holes of appropriate size for the injection tip. 2. Spacing of the holes will depend on the distribution of insect activity and infestation 3. To ensure the effectiveness of the pesticide, holes are made in an opposite way. 4. Re-treatment after 4 weeks for best results inject LION-20% WDG into new injection holes positioned between previous injection sites. - Application of LION-20% WDG will not provide structural protection nor substitute for mechanical Alteration, soil or foundation treatment with termiticide.

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TARGET AREA	TARGET PESTS	APPLICATION RATE / SPRAYER TYPE	DIRECTION USE /LOCATION / DILUTION RATE/ AREA COVERED	NOTES
	Carpenter Bees	50-100 gm. / 20 lt water.	Indoors & Outdoors Direct application to bees and their nests should be made.	- Complete coverage of bee's nests is important for optimal control. - LION-20% WDG will provide adequate control but is not a quick knockdown agent.
	Wasps	50-100 gm. / 20 lt water By using pin stream or coarse spray	Indoors & Outdoors Direct application to wasps and their nests should be made.	- Ensure complete coverage when treating nests directly - LION-20% WDG will provide adequate control but is not a quick knockdown agent.

CAUTION:

- **LION-20% WDG** can be applied by using ULV equipments mentioned in the table of uses for crack and crevice or spot applications only.
- Do not use in aircraft cabins.
- Do not apply to areas that are routinely washed.
- Do not apply **LION-20% WDG** in commercial nurseries and greenhouses or for commercial seed production.
- Do not apply lion through any type of irrigation system.
- Keep people and pets away from treated areas until treatment areas are dried.
- Do not treat surfaces or areas where food or feed may come into contact with the pesticide

FOAM PREPARATION PROCEDURE:

1. Foaming agent that used should be non-repellent to the target species
2. For wall voids and spot applications, use 25:1 to create foam with a drier consistency
3. For subsurface application use range of 5:1 to 15:1 to create with wetter consistency

WOOD INJECTION METHOD:

- Drill small diameter holes of appropriate size for the injection tip.
- Spacing of the holes will depend on the distribution of insect activity and infestation
- To ensure the effectiveness of the pesticide, holes are made in an opposite way.
- Re-treatment after 4 weeks for best results inject **LION-20% WDG** into new injection holes positioned between previous injection sites.

MIXING DIRECTIONS

1. Do not add **LION-20% WDG** into an empty tank.
2. Fill the tank with water to about half of quantity then add the appropriate amount of the pesticide into the tank and agitate.
4. Fill tank with remaining volume of water and agitate again.
5. If dilution remains for extended periods, re-agitate before application.

RE-ENTRY PERIOD: Until treated areas are dried.

RESIDUAL ACTIVITY: 28 days

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