

# PyGanic®

ORGANIC INSECTICIDE

ACTIVE CONSTITUENT: 13 g/L PYRETHRINS

GROUP **3A** INSECTICIDE

**PyGanic® is a fast acting botanical insecticide derived from Chrysanthemums that provides short-term control of several insect pests by contact action on fruit and vegetable crops, as per the Directions for Use table.**

## GENERAL INSTRUCTIONS

### INSECTICIDE RESISTANCE WARNING

GROUP **3A** INSECTICIDE

For insecticide resistance management, **PyGanic** is a Group 3A insecticide.

PyGanic is not intended to be the sole foundation of pest control but should be used as part of an integrated pest management program. Some naturally occurring insect biotypes resistant to PyGanic and other Group 3A insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if PyGanic or other Group 3A insecticides are used repeatedly. The effectiveness of PyGanic on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, Sumitomo Chemical Australia Pty Ltd accepts no liability for any losses that may result from the failure of PyGanic to control resistant insects.

**MIXING:** Add PyGanic to water at the recommended rate and mix well before spraying. Maintain agitation or agitate frequently while spraying. Mix only enough for immediate use.

### APPLICATION INSTRUCTIONS

**DO NOT** apply in direct sunlight or when temperature exceeds 32°C.

**Best applied just before dusk or early morning before sun is at full strength.**

Spraying should begin when insects first appear. **DO NOT** wait until the plants are heavily infested. Repeat as required to maintain effective control. It is recommended that the final spray mix be buffered to a pH of 5.5 – 7.0.

When first using PyGanic, always treat a few plants of each species to ensure crop safety before treating large areas.

PyGanic is a contact insecticide that will kill a broad range of insects including beneficial insects when present. PyGanic has very limited residual activity. Therefore, to ensure good control, complete coverage of the target crop is necessary. The addition of a non-ionic surfactant may aid penetration into tight fruit or crops.

### Special Mixing and Application Instructions for Tree and Vine Crops:

#### *Dilute Spraying*

- Use a sprayer designed to apply high volumes of water up to 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. Apply sufficient water to cover the crop to the point of run-off. Avoid excessive run-off.
- The required water 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 100 L 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 then be calculated in the following way:

#### **EXAMPLE ONLY**

- Dilute spray volume as determined above:  
For example 1500 L/ha
- Your chosen concentrate spray volume:  
For example 500 L/ha
- The concentration factor in this example is 3X (i.e. 1500 L ÷ 500 L = 3)
- If the dilute label rate is 150 mL/100 L, then the concentrate rate becomes 3 x 150, that is 450 mL/100 L of concentrate spray.

- The chosen spray volume, amount of product per 100 L 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.

## COMPATIBILITY

**DO NOT** mix PyGanic with lime sulphur, Bordeaux mixture or any other alkaline materials. This product may be tank mixed with other insecticides, acaricides, fungicides, adjuvants, and wetting agents. This application should conform to accepted precautions and directions for both products. Tank mix applications must be made in accordance with the more restrictive of label limitations and precautions. No label application rates may be exceeded. This product cannot be mixed with any product with label prohibitions against such use.

Prior to tank mixing, conduct a small-scale physical compatibility test using the proper proportions of products and water to ensure the physical compatibility of the mixture.

## RE-ENTRY PERIOD

**DO NOT** re-enter treated area until the spray has dried, approximately 15 minutes after the application.

## PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Toxic to fish and other aquatic organisms. **DO NOT** contaminate streams, rivers or watercourses with the chemical or used containers.

## PROTECTION OF LIVESTOCK

Dangerous to bees. **DO NOT** spray any plants in flower while bees are foraging.

## STORAGE AND DISPOSAL

Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight.

Triple-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 re-cycling, break, crush, or puncture and deliver empty container 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

May irritate the eyes and skin. Repeated exposure may cause allergic disorders. Sensitive workers should use protective clothing. Avoid contact with eyes and skin. **DO NOT** inhale vapour or spray mist. Wash hands after use.

## FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131126).

## SAFETY DATA SHEET

Additional information is listed in the Safety Data Sheet available from Sumitomo Chemical Australia Pty Ltd.

## IMPORTANT NOTICE

These goods are to be used only for the purpose and as specified on the label, and are not suitable for any other purpose. To the fullest extent permitted by law, we do not accept or bear any liability on any basis for any loss, damage, cost or expense, arising in any way, directly or indirectly, in connection with the goods.

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## EMERGENCY ADVICE

In a transport emergency,

**DIAL 000**

POLICE OR FIRE BRIGADE

For specialist advice in an emergency only dial

**1800 033 111**

All hours Australia-wide

## DIRECTIONS FOR USE – All states

To ensure good control, complete coverage of the target crop is necessary.

RATE				CRITICAL COMMENTS
<p>In the following table, all rates are given for dilute spraying.</p> <p><b>For concentrate spraying, refer to the “Application Section”.</b></p>				<p><b>For all uses in this table:</b></p> <p><b>Apply by dilute or concentrate spraying equipment.</b></p> <p><b>Refer to the section “Dilute Spraying” and “Concentrate Spraying” in the General Instructions.</b></p> <p><b>Apply the same amount of product to the target crop whether applying this product by dilute or concentrate spraying methods.</b></p>
CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Avocados	Greenhouse thrips ( <i>Heliothrips haemorrhoidalis</i> )	200 mL/ 100L water	Nil	Control of listed pests may be expected to last 24-72 hours only. PyGanic provides no residual control, but is useful in an IPM program where other control methods are in place. Monitor pest presence and spray when first observed on fruit. Apply early evening to dusk after bee foraging has ceased. Repeat applications may be necessary.
Citrus including: Oranges, Mandarins, Grapefruit, Lemons, Limes		150 mL/ 100L water	Nil	
Kiwifruit		Passion vine hopper ( <i>Scolypopa australis</i> )	200 mL/ 100L water	
Macadamia nuts	Macadamia lace bug ( <i>Ulonemia spp.</i> )	200 mL/ 100L water Apply to point of runoff to a maximum of 4 L/ha	1 day	Apply at first sign of infestation, pre-flowering, immediately prior to main flower opening. Repeat spray treatment (if required) prior to second flower opening, continuing to nut set if pressure persists. Commonly July-October. Apply a maximum of 5 application per crop with a minimum of 7 days between applications.
Flowerhead brassica including: Broccoli, Cabbage, Cauliflower, Brussels sprouts	Diamondback moth ( <i>Plutella xylostella</i> )	2.4 L/ha	Nil	Control of Diamondback Moth may be expected to last 24 hours only. PyGanic provides no residual control, but is useful in an IPM program where other control methods are in place. Monitor pest presence and spray when first observed. Repeat application may be necessary. Under conditions of heavy pest pressure or when the pest population is dominated by late immature stages and adults the higher rate of PyGanic is recommended. Thorough coverage is essential for optimum performance.
Lettuce	Pea aphids ( <i>Acyrtosiphon pisum</i> )		Nil	Control of Pea Aphids, Beet Armyworm and Potato Aphids may be expected to last 24 hours only. PyGanic provides no residual control, but is useful in an IPM program where other control methods are in place. Monitor pest presence and spray when first observed. Repeat applications may be necessary.
Tomato	Beet armyworm ( <i>Spodoptera exigua</i> ) Potato aphids ( <i>Macrosiphum euphorbiae</i> )		Nil	

## CLEAN UP SPRAY (field and protected crops):

### RESTRAINTS:

The sensitivity of all plant species and varieties to PyGanic has not been fully evaluated. It is recommended to treat a sample area and assess appropriately prior to whole crop treatment

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
<b>Berries and other small fruit including:</b> Blueberries, Bilberry, Ligon berries, Currants, Gooseberry, Raspberries, Ribberries, Strawberries	Insects (including beneficial predators) that may be present just prior to harvest such as: Fruitfly, Rutherglen bug, Spiders	2.4 L/ha for boom spray or 150-200 mL/ha for trellised or large bush crops where airblast sprayers are used  Use the higher rate for denser crops and high pest pressure	Nil	<b>CLEAN-UP SPRAY:</b> This use of PyGanic is to remove insects including beneficial predators in the crop that may be present just prior (3-12 hours) to harvest and may cause packaging and marketing problems. PyGanic provides little residual control but has a flushing and repellent effect which causes insects to move out of the crop for a few hours. While PyGanic used in this way will remove most insects from the crop during the harvesting period, complete removal of all insects is not guaranteed. <b>DO NOT</b> over-wet fruit crops as excess spray solution may collect at the bottom of the fruit and cause marking. Best results are achieved when applied 3 to 12 hours prior to harvest. Addition of a non-ionic surfactant may improve efficacy. To achieve the required flushing or repellency effect it is critical that the PyGanic spray penetrates effectively into the whole crop. For dense group crops (such as leafy lettuce) high water rates (750-1000 L/ha) and high pressure/air assisted spraying is required. For orchard crops conventional airblast spraying to the point of runoff is required. Concentrate spraying is not recommended.
<b>Brassica vegetables including:</b> Broccoli, Brussels sprouts, Cabbage, Cauliflower			Nil	
<b>Brassica leafy vegetables including:</b> Broccoli raab (Rapini), Chinese broccoli (Gai lan), Chinese cabbage (Pak-choi), Bok choy, Chinese flat cabbage, Cress (Garden, Upland), Flowering white cabbage (Choisum), Kale, Kohlabi leaves, Komatsuna (Mustard spinach), Mizuna, Mustard greens Indian, Leaf, Purple-stem mustard, Radish leaves (inc tops), Rape greens, Rucola (Arrugula, Rocket), Turnip greens, Wasabi leaves, Wild rocket			Nil	
<b>Leafy vegetables including:</b> Chinese cabbage, Cress, Endive, Fennel, Kale, Lettuce, Mustard, Silverbeet, Spinach (field and protected)			Nil	
<b>Fruiting vegetables</b> Capsicums, Chillies, Egg plant, Tomato (Except Sweetcorn and Mushrooms)			Nil	

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## CLEAN UP SPRAY (field and protected crops) *cont:*

CROP	PEST	RATE	WHP	CRITICAL COMMENTS	
<b>Cucurbit vegetables including:</b> Bitter melon, (bitter cucumber, balsam pear), Cantaloupe (rock melon), Chinese cucumber, Courgette (summer squash), Cucumber, Gac, Gherkin, Gourds, (bottle, round, pointed, snake), Marrow Melons, Pumpkins, Watermelon, Winter Squash, Zucchini	Insects (including beneficial predators) that may be present just prior to harvest such as:  Fruitfly, Rutherglen bug, Spiders	2.4 L/ha for boom spray  or  150-200 mL/ha for trellised or large bush crops where airblast sprayers are used	Nil	<b>CLEAN-UP SPRAY:</b>  This use of PyGanic is to remove insects including beneficial predators in the crop that may be present just prior (3-12 hours) to harvest and may cause packaging and marketing problems.  PyGanic provides little residual control but has a flushing and repellent effect which causes insects to move out of the crop for a few hours.  While PyGanic used in this way will remove most insects from the crop during the harvesting period, complete removal of all insects is not guaranteed.  <b>DO NOT</b> over-wet fruit crops as excess spray solution may collect at the bottom of the fruit and cause marking.  Best results are achieved when applied 3 to 12 hours prior to harvest.  Addition of a non-ionic surfactant may improve efficacy.  To achieve the required flushing or repellency effect it is critical that the PyGanic spray penetrates effectively into the whole crop. For dense group crops (such as leafy lettuce) high water rates (750-1000 L/ha) and high pressure/air assisted spraying is required.	
<b>Legume vegetables including:</b> Green beans, Broad beans, Common bean, Catjan, Cowpea, Goa bean, Green peas, Guar, Lablab bean, Mung bean, Soya bean			Use the higher rate for denser crops and high pest pressure		1 day + <b>DO NOT</b> graze or cut for stock food for 1 day after application
<b>Citrus including:</b> Oranges, Mandarins, Grapefruit, Lemons, Limes		150-200 mL/100L  Use the higher rate for denser crops and high pest pressure	Nil		
<b>Grapes – wine and table</b>		Use the higher rate for denser crops and high pest pressure	Nil		For orchard crops conventional airblast spraying to the point of runoff is required.
<b>Pome fruit including:</b> Apples, Pears			1 day		Concentrate spraying is not recommended.
<b>Stone fruit including:</b> Apricots, Nectarines, Peaches, Plums, Prunes (fresh)			Nil		In crops where bees may be used for pollinating – apply early evening to dusk after bee foraging has ceased.
Cherries			1 day		
<b>Sub-Tropical fruit inedible peel including:</b> Avocado, Banana, Kiwifruit, Litchie (lychee), Mango, Pineapple		1 day			

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

**WITHHOLDING PERIODS:**

Avocados, Berries and other small fruits, Brassicas, Capsicums, Chillies, Citrus, Cucurbit vegetables, Eggplants, Grapes, Kiwifruits, Leafy vegetables, Stone fruits (except cherries), Strawberries and Tomatoes:  
**NIL**

Cherries, Legume vegetables, Macadamias, Pome fruits, Sub-Tropical fruits:

**DO NOT HARVEST FOR 1 DAY AFTER APPLICATION**

Legume vegetables:

**DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 1 DAY AFTER APPLICATION**

