



**ProForce**  
**Malice 18**  
Miticide



## *Effective knockdown Miticide for turf and ornamental situations*

### Product Overview

Malice 18 Miticide is a translaminar miticide, containing the active ingredient abamectin (18g/L).

Malice 18 Miticide is an emulsifiable concentrate formulation.

Malice 18 Miticide is registered for the control of Couch Mite in all turf situations.

Malice 18 Miticide is also registered for the control of Two Spotted Mite in ornamentals including Roses, Chrysanthemums, Carnations and indoor foliage plants.

Malice 18 Miticide is manufactured in Australia.

### Key Features

- > Effective knockdown of mite populations. Fast movement into the plant, to control feeding stages of mites, whilst maximizing rainfast properties.
- > Forms a reservoir within the plant, providing residual control for 3-4 weeks.
- > Reliable formulation, specifically developed for reduced odour.
- > Researched formulation. Malice 18 Miticide has been extensively trialed in turf and ornamental situations.
- > Translaminar activity, ensuring both contact and ingestion activity.
- > Useful product to be used in an integrated approach to mite management.
- > Proven turf safety. Tested on at least 11 turf species without causing any damage.
- > No extended re-entry period restrictions (once spray has dried on the leaf), providing ease of use in the urban environment.



## Malice 18 Miticide – Use Rates

SITUATION	PEST	RATE	COMMENTS
Turf	Couchgrass Mite ( <i>Aceria cynodoniensis</i> , formerly <i>Eriophyes cynodoniensis</i> )	2 L/ha or 20 mL/100m <sup>2</sup>	Apply in a total application volume of 300 to 500 L/ha. Good spray coverage is essential. The addition of a quality non-ionic surfactant is essential. Apply 1 to 2 consecutive applications at 21 to 28 day intervals if population persists.
Ornamentals including Roses, Chrysanthemums, Carnations and Indoor foliage plants	Two Spotted Mite ( <i>Tetranychus urticae</i> )	50 mL/100 L to a maximum of 1.5 L Malice 18/ha per application	Spray to wet foliage to near the point of run-off using at least 2,000 litres per hectare. Thorough coverage and penetration into plants is essential. Preferably apply on first appearance of mites. If applied when pest numbers are low to moderate, one application will be sufficient to give effective control, however if mites are numerous, apply a second application 7-10 days later.

## Mode of Action

### GROUP 6 INSECTICIDE

Abamectin blocks the transmission of electrical activity in invertebrate nerve and muscle cells mostly by enhancing the effects of glutamate (an important inhibitory neurotransmitter in insects) at the glutamate-gated chloride channel. By activating glutamate-gated chloride channels, the mite becomes paralysed, stops feeding and dies.

Abamectin has contact toxicity, but its stomach toxicity is much stronger. After 2-3 days of spraying abamectin, its insecticidal efficacy will be best and the longevity of residues will last about 7-15 days. Although it has no ovicidal action (egg control), it moves via translaminar activity (one side of leaf to the other) to kill mites that hide in the internal leaf sheath's.

## Maximising performance

- > Malice 18 Miticide must be applied with a non-ionic surfactant to ensure uptake. The label indicates to use a 1000g/L non-ionic surfactant at the rate of 0.25% v/v or 0.42% for 600g/L products. For 859g/L adjuvants (Octane Extender Sticker, Spreader), this equates to 30mL per 100L of water.
- > Malice 18 Miticide should not be applied if rainfall is imminent.
- > Don't apply if turf or ornamental plants are under heat or moisture stress.
- > Experience has shown that repeated use of one particular miticide from the same chemical group can lead to the early development of mite resistance to that miticide or chemical group. Therefore, it is important to rotate chemical groups or tank mix miticides to ensure resistant populations are controlled.
- > Don't use Malice 18 Miticide through any type of irrigation system.
- > Don't graze treated turf or clippings from any treated area to poultry or livestock.

## Couch Mite

*Aceria cynodoniensis* (Eriophyid mite)

These are tiny mites about 0.2mm in length, translucent and hard to see even under a microscope, though a dark background helps.



They have two pairs of legs where other mites have four. They normally cause "Witches' Broom" rosetting at the runner nodes.

