

LEAFGUARD

AVO 500 SL

For further information see attached pamphlet

A systemic water soluble, injectable, liquid fungicide for the control of *Phytophthora* root rot in avocado trees.

FUNGICIDE GROUP CODE 33

Active ingredient :

Phosphorous acid equivalent.... 500 g/ℓ
Potassium phosphite..... 777 g/ℓ

CONTENTS / INHOUD:

BATCH NO:

DATE OF MANUFACTURE:

EXPIRY DATE:

MANUFACTURER:

Nulandis®

A division of AECL Ltd. / ('n Afdeling
van AECL Beperk)

Reg. No. / Nr. 1924/002590/06

P. O. Box / Posbus 14418

Witfield, 1467 Tel : (011) 823 8000

www.nulandis.com



UN No. 1993 Flammable liquid, N.O.S. Patent : 2003/9364

P7641



**CAUTION
VERSIGTIG**



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REGISTRATION HOLDER:

Nulandis™ (A division of AECI Limited)
Reg. No. 1924/002590/06
P.O. Box 14418
Witfield, 1467
Tel : (011) 823 8000



NULANDIS

CAUTION

WARNINGS:

ALLOW A PERIOD OF AT LEAST 30 DAYS BETWEEN LAST STEM INJECTION AND HARVESTING.

Harmful if swallowed.

Handle with care.

May cause skin and eye irritation.

Do not apply **Avoguard 500 SL** when trees are flushing strongly.

Although **Avoguard 500 SL** is neutralized it may still be corrosive to metal.

Store in a cool dry place, away from food and feed.

Keep out of reach of children, animals and uninformed persons.

In case of poisoning – CALL A DOCTOR AND MAKE THIS LABEL AVAILABLE TO HIM.

Note: Maximum residue limits (MRL's) have been determined for South Africa. These values are based on considerations for "good agricultural practice" (GAP). In several countries of the world (e.g. the USA and many Middle Eastern and Mediterranean countries) phosphorous acid formulations are regarded as a fertilizer rather than a fungicide and since MRL's are not required for fertilizers, these countries have neither established nor approved MRL values for phosphorous acid products. There are also other countries where phosphorous acid is neither used as a fertilizer nor as a fungicide. Difficulties could therefore be experienced in exporting fruit from treated trees to countries that have not established MRL values for phosphorous acid fungicides. For growers wishing to export their produce it is recommended to consult your local Exporting Organisation or a Nulandis representative.

ALTHOUGH THIS REMEDY HAS BEEN EXTENSIVELY TESTED UNDER A WIDE VARIETY OF CONDITIONS, THE REGISTRATION HOLDER DOES NOT WARRANT THAT IT WILL BE EFFICACIOUS UNDER ALL CONDITIONS BECAUSE THE ACTION AND EFFECT THEREOF MAY BE AFFECTED BY A VARIETY OF FACTORS. THESE INCLUDE: ABNORMAL SOIL, CLIMATIC AND STORAGE CONDITIONS; QUALITY OF DILUTION WATER; COMPATIBILITY WITH OTHER SUBSTANCES NOT INDICATED ON THE LABEL; RESISTANCE OF THE DISEASE TO THE REMEDY CONCERNED; METHOD, TIME AND ACCURACY OF APPLICATION. FURTHERMORE, THE REGISTRATION HOLDER DOES NOT ACCEPT RESPONSIBILITY FOR THE FOLLOWING: DAMAGE TO CROPS, VEGETATION, THE ENVIRONMENT; HARM TO MAN OR ANIMAL; THE LACK OF PERFORMANCE OF THE REMEDY CONCERNED DUE TO FAILURE OF THE USER TO FOLLOW THE LABEL INSTRUCTIONS OR TO THE OCCURRENCE OF CONDITIONS WHICH COULD NOT HAVE BEEN FORESEEN IN TERMS OF THE REGISTRATION. CONSULT THE SUPPLIER IN THE EVENT OF ANY UNCERTAINTY.

PRECAUTIONS:

Wear rubber gloves and face shield whilst mixing, and rubber gloves whilst applying.

Wash with plenty of soap and cold water after application or accidental skin contact.

In case of contact with eyes, rinse immediately with running water and consult a medical practitioner.

Wash contaminated clothing after application.

Keep any left-over **Avoguard 500 SL** in a closed container in a safe place.

Prevent contamination of food, feeds, drinking water and eating utensils.

Clean all equipment thoroughly after use with **FLUSHSOL** and dispose of wash water where it will not contaminate crops, grazing, rivers and dams. Refer to the **FLUSHSOL** label for directions of use.

When empty, invert the container over the spray tank or mixing tank and allow it to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume water equal to at least one tenth of that of the container and add the rinsings to the contents of the spray tank. Destroy the container by perforation and flattening. Do not use the container for any other purpose.

DIRECTIONS FOR USE: USE ONLY AS DIRECTED.

COMPATIBILITY:

Avoguard 500 SL can be diluted with water to improve accuracy of application in young trees.

Avoguard 500 SL is compatible with Boron Metalosate.

Avoguard 500 SL should not be mixed with any other substances.

TIMING OF APPLICATION:

Inject **Avoguard 500 SL** after the leaves of the spring flush have hardened off and repeat when the leaves of the summer flush have hardened off. The calendar date for correct timing of applications will vary according to the cultivar, the weather conditions, and the region. Trees affected by *Phytophthora* root-rot will flush later and harden off later and such trees will therefore need to be treated at a second pass through the orchard. Injecting **Avoguard 500 SL** too early, i.e. while the trees are still flushing, will reduce translocation to the roots and will very likely increase residues in the fruit.

METHOD OF APPLICATION:

Avoguard 500 SL should be injected into freshly drilled holes in the tree trunk, using a syringe. The number of injections per tree depends on the tree size and condition of the tree. A guide to the number and volume of the injections is given below.

If standard "avocado" syringes are to be used, holes should be drilled out using a 4.8 mm bit. These holes should be spaced evenly around the trunk and should be angled downward and drilled to a depth of 30 to 50 mm.

The required volume of **Avoguard 500 SL** should be drawn into the syringe. The syringe should then be inverted and the plunger pulled back to fill the remaining capacity of the syringe with air.

Insert the tip of the filled syringe into one of the holes in the tree trunk ensuring a tight fit that will not leak when pressure is applied. Depress the plunger, compressing the air in the syringe and fix the plunger in this position. The compressed air in the syringe will help to force the **Avoguard 500 SL** into the tree. Repeat this process with all the holes that have been drilled. When the tree has taken up all the **Avoguard 500 SL**, remove the syringe.

For treating severely affected trees (0.5 g a.i./m²)

Tree Diameter (m)	No. of syringes	Avoguard 500 SL per syringe (m/l)	Water per syringe (m/l)	Total volume per syringe (m/l)	Avoguard 500 SL per tree (m/l)
2	2	1.5	3.5	5	3
3	2	3.5	1.5	5	7
4	3	4	1	5	12
5	3	7	-	7	21
6	3	10	-	10	30
7	4	10	-	10	40
8	5	10	-	10	50
9	6	10	-	10	60
10	8	10	-	10	80
11	10	10	-	10	100
12	11	10	-	10	110
13	9	15	-	15	135
14	10	15	-	15	150

For treating mildly affected trees or as preventive treatment (0.3 g a.i./m²)

Tree Diameter (m)	No. of syringes	Avoguard 500 SL per syringe (m/l)	Water per syringe (m/l)	Total volume per syringe (m/l)	Avoguard 500 SL per tree (m/l)
2	2	1	4	5	2
3	2	2.5	2.5	5	5
4	3	2.8	2.2	5	8
5	3	4.5	0.5	5	14
6	4	5	-	5	20
7	4	7	-	7	28
8	5	7	-	7	35
9	5	8	-	8	40
10	5	10	-	10	50
11	6	10	-	10	60
12	7	10	-	10	70
13	6	15	-	15	90
14	7	15	-	15	105

NOTES:

- To facilitate accurate dosing of young (small) trees **Avoguard 500 SL** can be diluted with water in the proportions indicated. However, the water is not essential for the treatment and can be dispensed with if preferred.
- Application rates per tree may require adjustment under certain conditions. Trees that are very tall in relation to their diameters (e.g. certain cultivars or at high tree populations) will require higher application rates while trees that have been severely trimmed back (and have sparse foliage) will require lower application rates. In such cases application rates are more appropriately related to a tree area based on a "tree height" times "tree width" calculation than to a tree area calculation based on tree diameter. Under such conditions inject **Avoguard 500 SL** at 1 m²/m² of tree area for severely affected trees, and at 0.7 m²/m² for preventative control and for trees mildly affected by *Phytophthora* root rot, basing the tree area on a (h x w), calculation.
- Trees in a severely debilitated condition are likely also to be suffering from a boron deficiency and this will prevent the trees from responding to **Avoguard 500 SL** injections. Combining **Avoguard 500 SL** with Boron Metalosate in the ratio of 2:1, and increasing the dosage rates per tree by 50%, may improve responses. Boron nutrition should, however, receive special attention at least until the tree return to normal productivity.
- Where the application rate per tree is adjusted, the new volume per tree will need to be applied using a convenient number of syringes per tree. An acceptable balance will need to be reached between the volume per syringe and the number of syringes per tree. Remember that smaller loads per syringe are absorbed quicker but these require more injections and hence cause more injury to the tree. Conversely, fewer injections will cause less injury but take longer to inject because of the higher volume per syringe.
In field trials injection holes were observed to heal completely after a period of a few months.
- A degree of leaf damage may result from injections of **Avoguard 500 SL** and particularly on trees with sparse foliage. Subsequent flushes of new growth will, however, be normal in most cases. The extent of the leaf damage, should it occur, is expected to be less than when un-neutralized phosphorous acid is used according to earlier recommendations.
- In some areas **Avoguard 500 SL** injections have caused leaf burn in Pinkerton and Ryan avocado's. Such leaf damage can be avoided by diluting the **Avoguard 500 SL** dose with an equal amount of water and then doubling the total volume injected.

If in doubt concerning any of the above, kindly contact the registration holder of this product

FLUSHSOL® is the registered trademark of AECI Limited (Nulandis™ a division of AECI Ltd.)



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