

BEFORE USING THIS PRODUCT READ THE LABEL CAREFULLY!

Plant Growth Regulator



RESPOND 520 SL

Reg. No. L 9718 Act/Wet No. 36 of/van 1947

2: 16/4/2015 – Jan 2017

*A soluble concentrate plant growth regulator for use in crops as indicated.
'n Oplosbare konsentraat plant groeireguleerder vir gebruik op gewasse soos aangedui.*

ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL

cyanamide 520 g/l sianamied



villa

Registration holder / Registrasiehouer:
Universal Crop Protection (Pty) Ltd.
Co. Reg. No. / Mpy. Reg. Nr. 1983/008184/07
PO Box / Posbus 801, Kempton Park, 1620
Tel: 011 396 2233
Website / Webblad: www.villacrop.co.za

UN Number: 2922

Willow Set & Print 011 394-4486



HARMFUL
SKADELIK



GEBRUIKSAANWYSINGS INGESLUIT

VERWYS NA BESONDERHEDE
GEDRUK OP HOUER/SAK

Date formulated:
Formuleringsdatum:

DIRECTIONS FOR USE ENCLOSED

REFER TO DETAILS PRINTED
ON CONTAINER/BAG

Batch number:
Lotnommer:

RESPOND 520 SL

Reg. No. L 9718 Act/Wet No. 36 of/van 1947

ACTIVE INGREDIENT / AKTIEWE BESTANDDEEL:

cyanamide / sianamied..... 520 g/l

Registration holder / Registrasiehouer:

UNIVERSAL CROP PROTECTION (PTY) LTD.

Co. Reg. No. 1983/008184/07 Mpy. Reg. Nr.

PO Box / Posbus 801, KEMPTON PARK, 1620

Tel. (011) 396 2233

HARMFUL**SKADELIK****WARNINGS**

- Handle with care.
- Harmful by swallowing and skin contact.
- Toxic to bees and dangerous to fish and wildlife.
- Severely irritating to skin and eyes.
- Store under lock and key in cool (below 20 °C), dry, well ventilated place, away from food, feeds, seed and fertilizers.
- **RESPOND 520 SL is only stable for a period of one (1) year.**
- Keep out of reach of children, uninformed persons and animals.
- Re-entry: Do not enter treated area within 1 day after treatment unless wearing protective clothing.
- **In case of poisoning, take the patient immediately to a doctor and make this label available to him/her.**

Although this remedy has been extensively tested under a large 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 factors such as abnormal soil, climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label, as well as by the method, time and accuracy of application. The registration holder further does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or for 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 event of any uncertainty.

PRECAUTIONS

- Do not inhale the spray mist or fumes.
- Avoid eye and skin contact.
- **Do not drink any form of alcohol 24 hours before, during and up to 24 hours after the spraying of this product, since alcohol interacts with Cyanamide, thereby increasing potential harmful effects.**
- Wear protective overalls, rubber gloves, gumboots and a face shield when the concentrate is handled and during mixing and application.
- Wash with soap and water after use and after accidental skin contact.
- Wash contaminated clothing after use.
- Do not eat, drink or smoke whilst mixing or applying the product or before washing hands and face and change of clothing.
- Prevent drift onto other crops, grazing, rivers, dams or areas not under treatment or to nearby water sources.
- Thoroughly clean spraying equipment directly after use and dispose of wash water where it will not contaminate food, grazing, boreholes, rivers or dams.
- **TRIPLE RINSE** empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of a third of that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner.
- Destroy the empty container by perforation and flattening and dispose of it in a safe way.

- **Never** re-use the empty container for any other purpose.
- Prevent contamination of food, feed, drinking water and eating utensils.
- **Do not** apply **RESPOND 520 SL** where there is bee activity in orchards to be sprayed.

SYMPTOMS OF HUMAN POISONING

- **Ingestion or inhalation:** Pronounced dilation of the cutaneous vessels to the face and upper thorax, resulting in intense flushing and blue-red discolouration (especially when in combination with alcohol consumption).
In severe cases giddiness, headache, respiratory distress, elevated pulse rate, tightness in the chest and a sensation of coldness in the extremities may occur. Hoarseness and cough are probably the result of a local irritant effect on the mucous membranes. These symptoms usually disappear within a short time but may last up to 24 hours.
- **Skin contact:** Reddening and blistering of the skin or in distinct effects with papulovesicular reaction or severe dermatitis.

FIRST AID TREATMENT

- **In case poisoning is suspected:** Remove the patient from the source of poisoning to a well-ventilated area and keep him/her calm and at rest. Avoid contact with the skin, eyes and clothing. Remove contaminated clothing. If difficulties occur, obtain medical attention. Show container, label and/or safety data sheet to physician. Keep airway open to maintain breathing, especially if person is unconscious or has vomited. Do not apply direct mouth-to-mouth respiration.
- **Skin contact:** Remove contaminated clothing and wash the contaminated areas with plenty of soap and cold water. Do not rub the skin. **Get medical attention if irritation persists.**
- **Eye contact:** Immediately flush contaminated eyes for 15 minutes with clean cold water, while occasionally lifting upper and lower lids. **Seek medical advice if irritation persists.**
- **Inhalation:** Remove person to fresh air if exposure is excessive. If breathing difficultly or irritation occur and persist, obtain medical attention. Do not apply direct mouth-to-mouth respiration.
- **Ingestion:** **Take patient immediately to nearest physician and make the label available to him/her.** In case of accidental ingestion, give a person one or two glasses of water or milk to drink - **do not** induce vomiting. If conscious and medical aid is not available immediately, induce vomiting. Be sure to keep victim's head below hips, to avoid aspiration of vomitus into lungs.

NOTE TO PHYSICIAN **IMPORTANT**

Cyanamide is NOT Cyanide and DOES NOT degrade to Cyanide.

No specific antidote known. Apply symptomatic supporting therapy. Put the patient in a horizontal position while administering oxygen (6 litres per minute). **Product interacts with alcohol!** If ingested, the stomach should be emptied under qualified medical supervision. Monitor circulatory status.

USE RESTRICTIONS

- Only use prior to budding.
- Do not apply within (four) 4 hours prior to rain, or shortly after rain, while plants are still wet.
- Do not apply **RESPOND 520 SL** plus mineral oil, close to or prior to an expected cold spell (within five (5) days), as it may give poor results.
- **Inconsistent results may occur on trees suffering from stress conditions such as temporary water logging at time of treatment.**

DIRECTIONS FOR USE: Use only as directed.

Compatibility:

- Do not mix with insecticides or fungicides at 1.5 % or higher dosage rates.
- **RESPOND 520 SL**, at the reduced rate of 0.5 to 1.0 %, combined with a mineral oil (refer to list at end of label), is compatible with **Chlorpyrifos 480 EC** and can be used as a tank mixture for the control of Pernicious scale and Mealy bug on apples, pears, plums and apricots.
- The compatibility of **RESPOND 520 SL** may be influenced by several factors. As factors influencing compatibility may vary, a physical compatibility test must always be performed, before such tank mixture is sprayed. In the case of uncertainty, contact the supplier or the registration holder.
- When **RESPOND 520 SL** is used in conjunction with any other agricultural remedy, all **WARNINGS, PRECAUTIONS** and **DIRECTIONS FOR USE** mentioned on that label, must be adhered to.

Mixing instructions:

- Half fill the spray tank with clean water.
- Measure the required quantity of **RESPOND 520 SL** and pre-mix with at least 10 litres of water. Add this mixture to the water in the spray tank, while agitating the mixture.
- Fill the spray tank with water to the required level, while maintaining agitation, to ensure thorough mixing.
- Maintain agitation during application.
- Prepared spray mixture must not be left in the spray tank for any length of time, e.g. overnight.

Application instructions:

- General - Berries, Vines, Kiwi Fruit and Young Non-bearing Fruit Trees:
Apply as a directed spray. Complete coverage of the buds is essential where rest breaking is sought. Use a handgun or knapsack sprayer equipped with D4 nozzles and 45 whirl plates (or equivalent). Spray at low pressure (<100 kPa).
- Ensure than complete coverage of the buds is obtained where rest breaking is the objective.
- The application of **RESPOND 520 SL** by brushes or sponges is not registered and is most strongly discouraged. **Manual application increases the risk of skin contamination, which may lead to severe skin burns.**
- Apply with a correctly calibrated sprayer that is in good working condition, to ensure that the correct dosage is evenly distributed over the target area.
- The lower the concentration of **RESPOND 520 SL** applied, the more important thorough coverage of the dormant buds becomes. In case of waxy plant surfaces, the addition of a non-ionic wetter, as recommended, is essential. The type of trellis and the frame of the vines determine the volume of spray mixture required. Directed application with hand lances may improve efficacy and cost effectiveness.
- Apples, Pears, Apricots and Plums (bearing trees):
 - The volume of water required must be calculated according to the *Tree-Row-Volume* (TRV) formula:

$$\text{Litres per hectare} = \frac{\text{Tree height} \times \text{Tree diameter}^* \times 937}{\text{Row width}}$$

(* - The TRV calculation is the maximum high water volume (HVR) required when the trees are in full leaf. Use the water volume required per hectare to calculate the amount of product required per hectare according to the various growth stages of a tree during the season.)

- In the case of Apples and Pears, use not less than 70 % of the HVR volume, but also not less than 1000 litres per hectare.
 - In the case of stone fruit, use not less than 60 % of the HVR volume, but also not less than 750 litres per hectare.
 - Where the calculated volume is less than 1000 litres per hectare in the case of Apples and Pears, and less than 750 litres per hectare in the case of stone fruit, rather use hand lances.
 - Apply at least 66 % of the applied volume to the top half of the trees.
 - In case of a tank mixture with **Chlorpyrifos 480 EC** apply at least 70 % of the HVR.
- **Application timing:**
The time when budding and full bloom occurs in deciduous fruit trees differ from year to year. It is therefore not possible to correctly predict full bloom dates for a specific season. In order to obtain a better indication regarding the decision on the time of application, also take into consideration the orchard's historical data, seasonal conditions (accumulation of cold units, flowering dates of early crops/cultivars, etc.) and physiological development of the crop and trees involved. It is recommended to consult an expert regarding a decision of the date of application.

Specific crop instructions:

- **Apples:**
The application of **RESPOND 520 SL** or **RESPOND 520 SL** plus mineral oil may advance and shorten the flowering period, which may affect cross-pollination and following chemical thinning. Consult experts in this regard and adjust thinning programme accordingly.
- **Sultanas - advanced bud-break:**
The **RESPOND 520 SL** dosage rate required may differ yearly from area to area. It may also be influenced by factors such as cumulative cold units during the period May to July for a particular area, growth vigour, stress factors, pruning time, etc. Under optimum conditions, successful

enhancement could be obtained with a 3 % concentration. Most of the time higher concentrations of up to 5 % will result in more even bud burst. Thorough coverage of the buds is essential. The earlier the spraying the higher the requirements, as well as giving more uneven results. Most of the time the 5 % concentration will result in more constant and even results. Young and vigorous vines will also require higher **RESPOND 520 SL** dosage rates.

- **Table and Wine Grapes - even bud-break:**

Dosage rates required to improve even bud-break differ between cultivars. Conditions - cumulative cold units during May to July, physiological condition of the vines, time of pruning, etc. - will be determining factors. Consult experts in this regard. Young and vigorous vines will also require the higher **RESPOND 520 SL** dosage rates.

- **Even bud-break of Berries:**

Dosage rates required to improve even bud-break differ between cultivars. Conditions - cumulative cold units during May to July, physiological condition of the vines, time of pruning, etc. - will be determining factors. Consult experts in this regard.

- **Plums:**

The application of **RESPOND 520 SL** or **RESPOND 520 SL** plus mineral oil may advance and shorten the flowering period which may affect cross-pollination especially, where the flowering period coincides with adverse weather conditions.

APPLICATION RATES

IMPORTANT: Refer to “USE RESTRICTIONS” and “Application instructions” (especially crop related instructions) above.

Crop	Dosage Rate	Remarks
Table and Wine grapes Even bud-break	3.0 to 5.0 ℓ / 100 ℓ water PLUS 0.05 % Link	Apply 3 to 4 weeks prior to normal bud-break. Refer below to list of cultivars that may be treated. Enquire about cultivars not on the list.
Sultanas Advancement of bud-break	3.0 to 5.0 ℓ / 100 ℓ water PLUS 0.05 % Link	Apply approximately 7 to 6 weeks before normal bud-break. Only be consider RESPOND 520 SL for advancement of bud-break in areas where frost or sudden cold snaps will not damage the new growth or flower bunches. IMPORTANT Inconsistent results may be obtained when RESPOND 520 SL is applied too early, the dosage rate is too low with regard to the specific conditions or insufficient coverage of the buds was obtained. NOTE The addition of a non-ionic wetting agent at the registered rate for waxy plant surfaces is recommended for all treatments of grapevines.

Crop	Dosage Rate	Remarks
Apples Non-bearing trees (1 to 3 years old)	4.0 ℓ / 100 ℓ water	Refer below to list of cultivars that may be treated. Enquire about cultivars not on the list. Apply from 1 to 10 September or 4 to 5 weeks prior to expected bud break. Do not apply to trees which already show signs of bud-break, rather use the RESPOND 520 SL plus mineral oil concentration as for bearing trees. NOTE Some cultivars may be sensitive to the higher rates of RESPOND 520 SL . When in doubt, rather use the RESPOND 520 SL plus mineral oil as for bearing trees.
Bearing trees	0.5 to 1.0 ℓ / 100 ℓ water PLUS mineral oil* 2.0 to 4.0 ℓ / 100 ℓ water	Refer below to list of cultivars that may be treated. Enquire about cultivars not on the list. Apply about 4 to 6 weeks prior to expected full bloom, but also consider the conditions of the current year and physiological development of the flower buds. For seasons or areas that experienced abnormally low chilling units, rather wait with application until first signs of bud swell on spurs or flower buds are noticed. Use the higher rate of RESPOND 520 SL and/or mineral oil where difficult bud-break conditions are expected (e.g. Golden Delicious growing against northern slopes, or when insufficient cumulative cold units were registered for the specific year).
Pears Non-bearing trees	1.0 ℓ / 100 ℓ water PLUS mineral oil* 2.0 to 4.0 ℓ / 100 ℓ water	Refer below to list of cultivars that may be treated. Enquire about cultivars not on the list. Apply about 2 to 4 weeks prior to expected bud break or during the period 20 to 30 August.
Bearing trees:	0.5 ℓ / 100 ℓ water PLUS mineral oil* 2.0 to 4.0 ℓ / 100 ℓ water	Apply about 4 to 6 weeks prior to expected full bloom, but also consider the conditions of the current year and physiological development of the flower buds. For seasons or areas that experienced abnormally low chilling units, rather wait with application until first signs of bud swell on spurs or flower buds are noticed. Use the higher rates of mineral oil for cultivars with medium to high chilling requirements, or crops growing in warm areas or when insufficient cumulative cold units were registered for the specific year.
Apricots Bearing trees	0.5 ℓ / 100 ℓ water PLUS mineral oil* 2.0 to 3.0 ℓ / 100 ℓ water	Apply about 4 to 6 weeks prior to expected full bloom, but also consider the conditions of the current year and physiological development of the flower buds. For seasons or areas that experienced abnormally low chilling units, rather wait with application until first signs of bud swell on spurs or flower buds are noticed. Use the higher mineral oil rates for cultivars with medium to high chilling requirements, or crops growing in warm areas or when insufficient cumulative cold units were registered for the specific year.

Crop	Dosage Rate	Remarks
Plums Non-bearing trees	-	Not recommended.
Bearing trees	0.5 ℓ / 100 ℓ water PLUS mineral oil* 2.0 to 4.0 ℓ / 100 ℓ water	Apply about 4 to 6 weeks prior to expected full bloom, but also consider the conditions of the current year and physiological development of the flower buds. For seasons or areas that experienced abnormally low chilling units, rather wait with application, until first signs of bud swell on spurs or flower buds are noticed. Where simultaneous flowering of cultivars for cross-pollination is required, rather spray 5 to 6 weeks before expected full bloom, but not later than first signs of bud swell on spurs or flower buds of the later cultivars, or 10 % balloon stage of early cultivars. Use the higher mineral oil rate on cultivars with medium to high chilling requirements or when insufficient cumulative cold units were registered for the specific year.

* Recommended mineral oils include **AMPRON**® (L 6125) or **CITROLE**® (L 4829) or **BUDBREAK**® (L 5951).

List of cultivars on which Cyanamide and/or Cyanamide + mineral oil has already been applied:	
Apples	Pink Lady*, Granny Smith, Braeburn, Royal Gala, Golden Delicious, Top Red, Smoothee, Starking
Apricots	Bulida, Imperial (Pal Steyn) Peeka, Royal
Grapes	
Table grapes	Waltham Cross, Barlinka, Dan-Ben-Hannah, Alphonse Laval, Sultanina
Wine grapes	Muscat d' Alexandrie, Chenin Blanc, Colombar, Riesling(Cape), Cinsaut, Cabernet Sauvignon, Chardonnay, Shiraz, Sauvignon Blanc, Zinfandel, Weiser Riesling
Pears	Packham's Triumph, Bon Chretien, Doyenne du Comice, Beure Bosc, Flamingo, Rosemary
Plums	Simka, Songold, Casselman, Redgold, Eldorado, Santa Rosa, Reubenel, Gaviota, Leatitia

The following products mentioned in this label may be replaced with equivalent products:

- **CHLORPYRIFOS 480 EC** (L 6350 / W 130130) = **CHLORPYRIFOS 480 EC** (L 7183 / N-AR 0993) = **CHLORPYRIFOS 480 EC** (L 8488) and
- **LINK** (L 8675) = **DIRECT** (L 8680).

AMPRON® is a registered trademark of / is 'n geregistreerde handelsmerk van **BP S.A. EDMS. BPK.**

BUDBREAK® is a trademark of / is 'n geregistreerde handelsmerk van **BASF S.A. (PTY) LTD.**

CITROLE 100® is a trademark of / is 'n geregistreerde handelsmerk van **TOTAL FINAELF.**

LINK, DIRECT and/en **CHLORPYRIFOS 480 EC** are registered products of / is geregistreerde produkte van **VILLA CROP PROTECTION (PTY) LTD.**

CHLORPYRIFOS 480 EC is a registered product of / is 'n geregistreerde produk van **UNIVERSAL CROP PROTECTION (PTY) LTD.**

CHLORPYRIFOS 480 EC is a registered product of / is 'n geregistreerde produk van **CROPASURE (PTY) LTD.**