

## WARNINGS

**Hazard Statements:** Fatal if swallowed or if inhaled. Toxic in contact with skin. Causes mild skin irritation. Very toxic to aquatic life.

**Pre-Harvest Interval (PHI):** Minimum number of days between last application and harvest or grazing:

Beans (green) .....	3 days	Pastures .....	7 days
Broccoli, Brussel sprouts, Cabbage, Cauliflower ...	4 days	Peaches .....	16 days
Citrus (20 g/100 ℓ water dosage).....	2 days	Potatoes .....	3 days
Citrus (higher dosage rates) .....	28 days	Sunflowers .....	28 days
Grain sorghum .....	7 days	Tobacco (flu-cured) .....	7 days
Lucerne (grazing) .....	7 days	Tobacco (air-cured) .....	14 days
Lupins .....	7 days	Tomatoes .....	2 days
Maize .....	7 days	Wheat .....	7 days

- Toxic to fish, bees and other animals
- **FARMAG METHOMYL 90 SP** may cause yellowing of the leaf tips on certain carnation varieties
- Do not use **FARMAG METHOMYL 90 SP** in combination with G-49 wetter on tobacco seedbeds or on citrus
- NOT FOR USE IN THE HOME GARDEN
- Store under lock and key in a cool, dry place, out of reach of children, unformed persons and animal and separate from food and feedstuffs in accordance with the hazardous Substances Act (Act 15 of 1973)
- **Re-entry Interval:** Do not enter treated area within 2 days after application unless wearing protective clothing
- Keep container tightly closed
- **AERIAL APPLICATION:** Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Do not spray over or allow spray drift to contaminate adjacent areas or water.

**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 and the occurrence of resistance of the disease against the remedy concerned as well as by the method, time and accuracy of application. The registration holder furthermore 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 the event of any uncertainty.**

## PRECAUTIONS

### Precautionary Statements

**General:** If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use.

**Prevention:** Do not breathe dust. Wash hands, forearms and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. In case of inadequate ventilation wear respiratory protection. IF SWALLOWED: Immediately call a poison centre or doctor

**Response:** IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison centre or doctor. Call a poison centre or doctor if you feel unwell. Specific treatment is urgent (see supplemental first aid instruction on this label). Rinse mouth. If skin irritation occurs: Get medical advice/ attention. Collect spillage

**Storage:** Store in a well-ventilated place. Keep container tightly closed. Store locked up,

**Disposal:** Dispose of contents and container to an approved waste disposal plant.

- Prevent drift of spray mist onto other crops, grazing, rivers, dams or areas not under treatment
- Clean all equipment thoroughly after use and do not contaminate crop, grazing, rivers or dams with wash water
- **CLEAN THE EMPTY PAPER BAG OR CARDBOARD CONTAINER as follows:** Shake all the pesticide formulation out of the bag or box into the spray or mixing tank or if it is directly dispensed onto treatment areas, over the area. Turn the bag or box inside out. Hold the bag or box over the spray or mixing tank or treatment area and rinse the bag or box with running water for thirty seconds. Shake the rinsate off into the tank. Repeat the rinsing twice. Cut the bag or box into pieces and dispose of via normal refuse disposal. Do not bury, burn or donate the bag or box to any other parties that may use it as container for food stuffs.
- Do not use empty containers for any other purpose
- Prevent contamination of food, feed, drinking water and eating utensils

FARMAG

# METHOMYL 90 SP

Reg. No. / Nr L3436 Act No. 36 of 1947/ Wet Nr 36 van 1947

**INSECTICIDE**



**READ THE LABEL AND ATTACHED PACKAGED LEAFLET BEFORE USE  
KEEP OUT OF REACH OF CHILDREN AND ANIMALS**

**IRAC INSECTICIDE GROUP CODE**

**1A**

**IRAC INSEKODER GROEPKODE**

A water soluble, contact insecticide for the control of various insects on crops as indicated.

'n Water oplosbare, kontak-insekdoder vir die beheer van verskeie insekte op gewasse soos aangedui.

**ACTIVE INGREDIENT/AKTIEWE BESTANDEEL:**

Methomyl (carbamate).....900 g/kg.....Metomil (karbonaat)



**DANGER**

**Hazard Statements:**

Fatal if swallowed or if inhaled.  
Toxic in contact with skin.  
Causes mild skin irritation.  
Very toxic to aquatic life.

**Precautionary Statements:**

Do not breathe dust.  
In case of inadequate ventilation wear respiratory protection.  
IF SWALLOWED: Immediately call a poison centre or doctor.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Immediately call a poison centre or doctor.

Batch No:

D.O.M:

D.O.E:

Net Mass:

See reverse of packaging for details.

FOR FULL PARTICULARS SEE ATTACHED PAMPHLET.  
VIR VOLLEDIGE BESONDERHEDE KYK AANGEHEGTE ETIKET.

UN No. / VR Nr: 2588



REGISTRATION HOLDER/ REGISTRASIEHOUER  
Castle Ag-Chem (Pty) Ltd  
Reg. Nr.: Reg. No.2007/033120//07  
61 Marshall Drive, Old Mill Industrial Park,  
Mount Edgecombe, South Africa, 4300  
Tel: 031 003 3486

Poison Information Helpline (24 hrs): 0861 555 777



**BARCODE**

100644

## RELEVANT SUBSTANCES

NAME	PRODUCT IDENTIFIER
Methomyl 98% TC	CAS-No.: 16752-77-5
calcium carbonate	CAS-No.: 471-34-1
sodium-2-naphthalenesulfonate	CAS-No.: 532-02-5

### SYMPTOMS OF HUMAN POISONING:

Headache, fatigue, faintness, giddiness, excessive sweating, nausea, abdominal pain, vomiting, blurred vision, muscle twitching, unusually small pupils, respiratory distress, coma.

### ANTIDOTE

Atropine sulphate

### FIRST AID TREATMENT:

- ALWAYS OBTAIN TREATMENT FROM A PHYSICIAN IMMEDIATELY.
- Remove patient from source of poisoning to a well-ventilated area.
- Keep the patient quiet and reassured.
- Remove contaminated clothing and rinse contaminated body area thoroughly with plenty of soap and water. Do not rub skin.
- Flush contamination out of eyes with clean water for at least 15 minutes.
- If swallowed, induce vomiting by tickling the back part of the throat. Repeat until vomit is clear and free from the smell of poison.
- Administer artificial respiration or closed chest cardiac massage if necessary.
- Do not apply direct mouth-to-mouth resuscitation.
- Never give anything by mouth to an unconscious person.
- Call a physician immediately and advise him of poisoning, or transport patient to a physician or hospital, whichever is fastest.
- SHOW THIS LABEL TO THE PHYSICIAN.

### NOTE TO PHYSICIAN:

Administer Atropine sulphate intravenously (2 – 4 mg for an adult) and repeated at 10 to 30 minute intervals until atropinization (dry flushed skin and tachycardia) appears. Pralidoxime (2 PAM, Protopam) and other oximes are contra indicated. However, for exposure to both **FARMAG METHOMYL 90 SP** and an organophosphorous insecticide, 2 PAM may be used as required to supplement the atropine sulphate treatment as described.

### RESISTANCE WARNING:

For resistance management **FARMAG METHOMYL 90 SP** is a group code 1A insecticide. Any insect population may contain individuals naturally resistant to **FARMAG METHOMYL 90 SP** and other group code 1A insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **FARMAG METHOMYL 90 SP** or any other group code 1A insecticide.

To delay insecticide resistance:

Avoid exclusive repeated use of insecticide from the same insecticide group code.

Alternate or tank mix with products from different insecticide codes.

Integrate other control methods (chemical, cultural, biological) into insect control programmes.

For specific information on resistance management contact the registration holder of this product.

### MODE OF ACTION:

Cholinesterase inhibitor. Systemic insecticide and acaricide with contact and stomach action.

**DIRECTIONS FOR USE:** Use only as indicated.

### COMPATIBILITY:

**FARMAG METHOMYL 90 SP** is compatible with most fungicides and insecticides normally used but is not compatible with alkaline materials. Do not use in combination with G-49 wetter on tobacco seedbeds or on citrus.

## AERIAL APPLICATION

Aerial application of **FARMAG METHOMYL 90 SP** may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SANS 10118: 2009 (The Aerial Application of Pesticides). Ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria be met:

- **Volume:** A spray mixture volume of 30 ℓ per hectare is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended above.
- **Droplet coverage:** 30 to 40 droplets per cm<sup>2</sup> must be recovered at the target area.
- **Droplet size:** A droplet spectrum with a VMD of 250 to 280 microns is recommended. Limit the production of fine droplets less than 150 microns (high drift and evaporation potential) to a minimum.
- **Flying height:** Maintain the height of the spray boom at 3 to 4 metres above the target. Do not spray when aircraft dives, is in a climb or when banking.
- Use suitable atomising equipment that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- Position all the atomisers within the inner 60 to 75 % of the wingspan to prevent droplets from entering the wingtip vortices.
- The difference in temperature between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8 °C.
- Stop spraying if the wind speed exceeds 15 km/h.
- Stop spraying under turbulent, unstable and dry conditions during the heat of the day.
- Spraying under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80 % and above) may lead to the following:
  - reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage).
  - damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the target field.
- Ensure that the Aerial Spray Operator knows exactly which fields to spray.
- Obtain an assurance from the Aerial Spray Operator that the above requirements will be met and that relevant data will be compiled in a logbook and kept for future reference.

## GROUND APPLICATION (deciduous fruit orchards):

### Volume water to be applied per hectare in deciduous fruit orchards:

The volume of water to be applied per hectare in deciduous fruit orchards is calculated according to the Tree Row Volume Formula as described by Unrath:

The formula is as follows:

$$\frac{\text{Tree height} \times \text{tree diameter} \times 937}{\text{Row width}} = \text{Volume water to be applied/ha}$$

The measurements used in the formula are those of the trees in full leaf cover. Because deciduous fruit trees are not always in full leaf the water volume to be applied per hectare at the earlier growth stages is as follows:

From green-tip to 30% blossom	- 60 % of HV to be applied
From ca. full blossom to ca. November	- 80 % of HV to be applied
From ca. beginning of December	- 100 % of HV to be applied

When pesticides are applied at low volume sprays the correct quantity of pesticide, as calculated for high volume applications, must be applied per hectare.

## MIXING INSTRUCTIONS:

Fill spray tank with water from ¼ to ½ of its volume. Start agitation (use mechanical or hydraulic agitator). Add the required number of **FARMAG METHOMYL 90 SP** water soluble sachets immediately to the water in the spray tank. Do not touch water soluble sachets with bare hands or allow them to become wet before adding to contents of spray tank – wear dry rubber gloves. Fill spray tank with water to the required volume and continue agitation for several minutes before spraying in order to dissolve water soluble sachets and its contents entirely.

CROP/PEST	DOSAGE / 100 ℓ WATER OR AS INDICATED	REMARKS
<b>BEANS</b> American Bollworm	50g  250 g/ha	Apply as soon as pest is noticed and repeat when necessary. <b>Ground application</b> Apply up to 500 ℓ of spray solution per ha depending on crop size. Spray thoroughly to ensure good coverage. <b>Aerial application</b> Apply in 30 ℓ water per ha.
<b>CARNATIONS</b> Carnation worm	100g	Spray plant thoroughly and ensure good coverage. Repeat at weekly intervals.
<b>CITRUS</b> American (Africa) Bollworm Aphids  Mealy Bug  Orange dog caterpillar  Red Scale  Soft green scale  Waxy scale	20g  250g/ha  20g  25g  100g + 3 ℓ narrow range mineral oil  100g + 500 mℓ narrow range mineral oil  25g	Apply as soon as pests appear. Repeat when necessary. <b>Ground application</b> Apply as a light cover spray. <b>Aerial application</b> Apply in 50 ℓ per ha (See 'AERIAL APPLICATION' above).  Apply a full cover spray with a high pressure sprayer as soon as nymphs appear on the fruit. Repeat when necessary.  Apply as a light cover spray as soon as larvae are noticed.  <b>Corrective treatment</b> Apply when 25-40% of the fruit is infested with one or more live nymphs or red scale adults. <b>Bearing trees</b> Apply only once between December and March and on early maturing cultivars, between December and January. Use <u>only</u> high pressure hand spray guns (compressor type). Do <u>not</u> apply with conventional citrus spraying rigs.  Apply as a full cover spray with a high pressure pump at first visible signs of infestation. <u>Do not use less than</u> 500 ml narrow range mineral oil per 100 ℓ water.  Apply as a full cover spray with a high pressure pump as soon as young nymphs of new generation move from the leaves to twigs. <u>This treatment will not be successful against adult waxy scale.</u>
<b>CRUCIFERAE</b> (Broccoli, Brussel Sprouts, Cauliflower, Cabbage)  American (Africa) Bollworm  Aphids Diamond-back moth and Greater cabbage moth larvae	250 g/ha 250 g/ha  50g	Apply as soon as pest is noticed. Repeat when necessary.  <b>Ground application</b> Apply in sufficient water to obtain even coverage and ensure good coverage. <b>Aerial application</b> Apply in 30 ℓ water per ha. (See 'AERIAL APPLICATION' above.)  <b>Ground application</b> Apply when pests are first noticed on leaves and repeat every 7 days. During high temperatures and high infestation repeat applications at 3 – 5 day intervals. Use up to 500 lt spray solution per ha. Ensure the thorough wetting of plants.

CROP/PEST	DOSAGE / 100 ℓ WATER OR AS INDICATED	REMARKS
<b>GRAIN SORGHUM, LUCERNE, LUPINS, WHEAT</b> American (Africa) bollworm	200 g/ha 50 g  200 g/ha	Apply as soon as pest is noticed and repeat when necessary.  <b>Ground application</b> <u>Low volume:</u> Apply in 100-200 ℓ water per ha. <u>High volume:</u> Apply up to 400 ℓ spray solution per ha  <b>Aerial application</b> Apply in 30 ℓ water per ha (See 'AERIAL APPLICATION' above).
<b>MAIZE</b> American (Africa) bollworm   Fall Army Worm <i>(Spodoptera frugiperda)</i>	200 g/ha 50 g  200 g/ha    200 g/ha 50 g 200 g/ha	Apply as soon as larvae are observed on the silks and before they enter cobs. <b>FARMAG METHOMYL 90 SP will not control larvae that have entered the cob.</b>  <b>Ground application</b> <u>Low volume:</u> Apply in 100-200 ℓ water per ha. <u>High volume:</u> Apply up to 400 ℓ spray solution per ha.  <b>Aerial application</b> Apply in 30 ℓ water per ha (See 'AERIAL APPLICATION' above.)  Scout fields regularly and <b>apply as soon as pest is first noticed</b> . Due to the short residual period of <b>FARMAG METHOMYL 90 SP</b> repeat applications may be necessary in cases where heavy infestations occur. Note that <b>FARMAG METHOMYL 90 SP will not control larvae that have entered the stem or cobs</b> . Good coverage of the leaves and stems is essential to ensure contact with the pest.  <b>Ground application</b> <u>Low volume:</u> Apply in 100-200 ℓ water per ha. <u>High volume:</u> Apply up to 400 ℓ spray solution per ha. <b>Aerial application</b> Apply in 30 ℓ water per ha (See 'AERIAL APPLICATION' above).
<b>PASTURES &amp; OTHER CROPS</b> Army-worm	50 g/ha	<b>Ground application</b> Apply in 400 ℓ water per ha when infestation is noted.
<b>PEACHES</b> False codling moth	50 g   50 g	To determine the volume of water in which <b>FARMAG METHOMYL 90 SP</b> should be applied per hectare refer “ <b>GROUND APPLICATION: Volume water to be applied per hectare in deciduous fruit orchards</b> ” above.  <b>Early varieties</b> Apply 2 sprays: the first 4 weeks before harvest and the second 10 days later. Ensure thorough coverage of trees.  <b>Late varieties</b> Apply 3 sprays: the first 6 weeks before harvest and the second and third at 10 day intervals thereafter. Ensure thorough coverage of trees. <b>Registered pesticides for fruit fly control should also be applied to both early and late varieties.</b>

CROP/PEST	DOSAGE / 100 ℓ WATER OR AS INDICATED	REMARKS
<b>POTATOES</b> American (Africa) bollworm Tuber moth (larva)	50g  300 – 500 g/ha	<p>For American (Africa) bollworm one application is enough to control one outbreak. If further outbreaks occur repeat applications as necessary. For tuber moth apply as soon as the plant is one month old and repeat application weekly throughout the growing season. Potatoes must be rigid at least twice during the growing season.</p> <p><b>Ground application</b> Ensure good coverage and wetting of plants. Apply up to 1 000 ℓ spray solution per ha.</p> <p><b>Aerial application</b> Apply in 30 ℓ of water per ha. Apply the higher dosage rate when spray intervals exceed one week (See 'AERIAL APPLICATION' above).</p>
<b>ROSES</b> Aphids	25g	Apply as full cover spray and repeat when necessary. Apply up to 500 ℓ spray solution per ha.
<b>SUNFLOWERS</b> American bollworm	100 g + 100 mℓ cypermethrin EC per hectare	<p><b>Aerial application</b>            Apply in at least 30 ℓ water per ha as soon as eggs or larvae are noticed on the plants (approximately 6 weeks after planting) (See 'AERIAL APPLICATION' above).  <b>FARMAG METHOMYL 90 SP</b> plus cypermethrin are only effective against larvae on the leaves and on the outside of the heads and will <u>not</u> control larvae which have already entered the heads. <b>FARMAG METHOMYL 90 SP</b> and cypermethrin are toxic to bees and should thus not be sprayed in the full-blossom period.</p>
<b>TOBACCO</b> American (Africa) bollworm  Tobacco slug  Green stinkbugs (Pentatomidea)  Leaf miner	50 g  250 g/ha  50 g	<p>Apply as soon as pests are noticed and repeat when necessary.</p> <p><b>Ground application</b> Apply up to 500 ℓ spray solution per ha.</p> <p><b>Aerial application</b> Apply in 30 ℓ water per ha. (See 'AERIAL APPLICATION' above).</p> <p><b>Aerial application</b> Apply as soon as pest is noticed and repeat at weekly intervals. Apply up to 500 ℓ spray solution per ha. Wet plant thoroughly.</p>
<b>TOMATOES</b> American (Africa) bollworm Aphids Tomato semi-looper Leaf miner Thrips	50 g	<p><b>Ground application</b>            Apply as a full cover spray as soon as fruit begins to set or earlier if necessary and repeat at 7-10 day intervals during growing season.</p>

## WAARSKUWINGS

**Gevaarstellings:** Dodelik indien ingestuk of ingeasem word. Giftig in kontak met die vel. Veroorsaak ligte velirritasie. Baie giftig vir waterlewe.

**Onthoudingsperiodes:** Minimum aantal dae tussen laaste toediening en oes of beweiding

Bone (groen) .....	3 dae	Weidings .....	7 dae
Blomkool, Brokkoli, Brusselse spruite, Kopkool ....	4 dae	Perskes .....	16 dae
Sitrus (20 g/100 l water dosis) .....	2 dae	Aartappels.....	3 dae
Sitrus (hoër dosis) .....	28 dae	Sonneblomme .....	28 dae
Graan sorghum .....	7 dae	Tabak (oondgedroog) .....	7 dae
Lusern (beweiding) .....	7 dae	abak (luggedroog) .....	14 dae
Lupiene .....	7 dae	Tamaties .....	2 dae
Mielies .....	7 dae	Koring .....	7 dae

- Giftig vir vis, bye en ander diere.
- **FARMAG METHOMYL 90 SP** kan vergeling van blaarpunte in sekere angelier variëteite veroorsaak.
- Moet nie **FARMAG METHOMYL 90 SP** in kombinasies met die benatter, G-49, op tabaksaadbeddings of sitrus gebruik nie.
- **NIE VIR GEBRUIK IN DIE HUISTUIN NIE.**
- Bêre agter slot en grendel in 'n koel, droë plek buite bereik van kinders, ongeligte persone en diere en weg van voedsel en voer in ooreenstemming met die Wet op Gevaarhoudende Stowwe 1973, (Wet No. 15 van 1973).
- **Herbetreding:** Moet nie behandelde area binne 2 dae na toediening betree tensy beskermende klere gedra word nie.
- Hou die houer dig toe.
- **LUGTOEDIENING:** Stel alle inwoners in die nabye omgewing in kennis van die area wat bespuit gaan word en reik die nodige waarskuwings uit. Moet nie oor aangrensende gebiede of waterbronne spuit of toelaat dat spuitnewel dit besoedel nie.

**Alhoewel hierdie middel omvattend onder 'n groot verskeidenheid toestande getoets is waarborg die registrasiehouer nie dat dit onder al toestande doeltreffend sal wees nie, aangesien die werking en effek daarvan beïnvloed kan word deur faktore soos abnormale klimaats- en bergingstoestand; kwaliteit van verdunningswater; verenigbaarheid met ander stowwe wat nie op die etiket aangedui is nie en die voorkoms van weerstand van die plaag teen die betrokke middel sowel as die metode, tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei, en omgewing of vir nadelige effek op mens of dier of vir 'n gebrek aan prestasie van die betrokke middel as gevolg van die ontstaan van toestande wat nie kragtens die registrasie voorsien kon word nie. Raadpleeg die verskaffer in die geval van enige onsekerheid.**

## VOORSORGMATREËLS

### Voorsorgstellings

**Algemeen:** Indien mediese advies benodig word, hou produkhouer of etiket byderhand. Hou buite bereik van kinders. Lees etiket voor gebruik.

**Voorkoming:** Moet nie stof inasem nie. Was hande, voorarms en gesig deeglik na hantering. Moet nie eet, drink of rook wanneer hierdie produk gebruik word nie.

Gebruik slegs buite of in 'n goed geventileerde area. Vermoë vrylating na die omgewing. Dra asemhalingsbeskerming in geval van onvoldoende ventilasie. **INDIEN INGESLUK:** Ontbied onmiddellik 'n gifsentrum of dokter.

**Reaksie:** **INDIEN INGESAEM:** Verwyder persoon na vars lug en hou gemaklik om asem te haal. Bel dadelik 'n gifsentrum of dokter. Bel 'n gifsentrum of dokter as jy onwel voel. Spesifieke behandeling is dringend (sien aanvullende noodhulpinstruksies op hierdie etiket). Spoel mond uit. Indien velirritasie voorkom: Kry mediese advies/aandag. Versamel gemors.

**Berging:** Berg in 'n goed geventileerde plek. Hou die houer dig toe. Stoor toegesluit.

**Wegdoening:** Gooi inhouer en houer weg na 'n goedgekeurde afvalverwyderingsaanleg.

- Verhoed wegdrywing van spuitnewel na ander gewasse, weidings, riviere, damme en ander gebiede wat nie onder behandeling is nie.
- Maak alle apparate deeglik skoon na gebruik en moet nie gewasse, weiding, riviere of damme met speelwater besoedel nie.
- **MAAK DIE LEE PAPIERSAK OF KARTONHOUE SKOON soos volg:** Skud al die plaagdoderformulering uit die sak of boks in die spuit- of mengtenk of indien dit direk op behandelingsareas gedoseer word, oor die area. Draai die sak of boks binneste buite. Hou die sak of boks oor die spuit- of mengtenk of behandelingsarea en spoel die sak of boks met lopende water vir dertig sekondes uit. Skud die speelwater in die tenk af. Herhaal die spoel twee keer. Sny die sak of boks in stukke en gooi weg deur normale vuilisverwydering. Moet nie die sak of boks aan enige ander partye wat dit as houer vir kos gebruik, begrawe, verbrand of skenk nie.
- Moet nie leë houters vir enige ander doel gebruik nie.
- Voorkom besoedeling van voedsel, voer, drinkwater en eetgerei.



## RELEVANTE STOWWE

NAAM	PRODUK IDENTIFISEERDER
Metomyl 98% TS	CAS-Nr.: 16752-77-5
Kalsiumkarbonaat	CAS-Nr.: 471-34-1
Natrium-2-naftaleensulfonaat	CAS-Nr.: 532-02-5

## SIMPTOE VAN MENSLIKE VERGIFTIGING:

Hoofpyn, vermoeidheid, flouheid, duiseligheid, oormatige sweet, mislikheid, buikpyn, braking, belemmerde gesigsvermoë, spiertrekkings, ongewoon verkleinde pupille, asemhalingsnood, bewusteloosheid.

## TEENMIDDEL

Atropien-sulfaat

## NOODHULPBEHANDELING:

### • VERKRY ALTYD ONMIDDELIK BEHANDELING VAN 'N GENEESHEER.

- Verwyder pasiënt van die oorsaak van vergiftiging na 'n goed geventileerde omgewing.
- Stel die pasiënt gerus en hou hom stil.
- Verwyder besoedelde klere en spoel die besmette liggaamsdele met volop seep en koue water af. Moet nie die vel hard vrywe nie.
- Spoel besoedelde oë vir minstens 15 minute met skoon water uit.
- Indien per mond ingeneem, veroorsaak braking deur die agterste gedeelte van die keel met vinger te prikkel. Herhaal totdat braaksel helder is en nie meer na gif ruik nie.
- Pas kunsmatige asemhaling of geslote hartmassering toe indien nodig.
- Moet nie direkte mond-tot-mond asemhaling toepas nie.
- Moet nooit iets per mond aan 'n bewustelose persoon toedien nie.
- Ontbied 'n geneesheer dadelik en lig hom oor die vergiftiging in of neem pasiënt na die naaste hospitaal of geneesheer, afhange watter die vinnigste is.
- TOON DIE ETIKET AAN DIE GENEESHEER.

## INLIGTING AAN GENEESHEER:

In die geval van volwassenes moet atropien-sulfaat teen 2 - 4 mg, binnears toegedien word. Herhaal elke 10 tot 30 minute totdat pasiënt ten volle ge-atropiniseerd is (droë gloeiende vel en tagikardie). Pralidoxime (2 PAM, Protopam) en ander oksieme het die teenoorgestelde uitwerking en moet nie gebruik word nie. In geval van blootstelling aan sowel **FARMAG METHOMYL 90 SP** as 'n organiese fosfaatinsekdoder mag 2 PAM gebruik word soos benodig om die voorgeskrewe atropien-sulfaat behandeling aan te vul.

## WEERSTANDWAARSKUWING:

**FARMAG METHOMYL 90 SP** is 'n groepkode 1A insekdoder. Enige populasie van 'n spesifieke insek mag individue insluit wat 'n natuurlike weerstand teen **FARMAG METHOMYL 90 SP**, of enige ander groepkode 1A insekdoder het. Indien hierdie insekdoders herhaaldelik aangewend word, kan die weerstandbiedende individue uiteindelik die insekpopulasie oorheers. Hierdie weerstandbiedende insekte sal waarskynlik nie deur **FARMAG METHOMYL 90 SP** of enige ander groepkode 1A insekdoder beheer word nie.

Om weerstand teen insekdoders te vertraag:

Vermyn die eksklusiewe herhaaldelike gebruik van insekdoders met dieselfde groepkode.

Wissel af met, of gebruik tenkingsels van produkte in verskillende insekdodergroepkodes.

Integreer ander beheermaatreëls (chemies, verbouing, biologies) in insekdoderprogramme.

Vir spesifieke inligting oor weerstandsbestuur kontak die registrasiehouer van hierdie produk.

## WYSE VAN AKSIE

Cholinesterase inhibeerder. Sistemiese insekdoder en mytdoder met kontak- en maagwerking.

**GEBRUIKSAANWYSINGS: Gebruik slegs soos aangedui**

## VERENIGBAARHEID:

**FARMAG METHOMYL 90 SP** is verenigbaar met meeste swamdoders en insekmiddels wat normaalweg gebruik word maar nie met alkaliese stowwe nie. Moet nie saam met G-49 benatter op tabaksaadbeddings en sitrus gebruik nie.

## LUGTOEDIENING:

**FARMAG METHOMYL 90 SP** kan slegs deur 'n geregistreerde Lugbespuitingsoperateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SANS 10118: 2009 (The Aerial Application of Pesticides) uit die lug bespuit word. Verseker dat die spuitmengsel eweredig oor die teikenarea versprei word, en die verlies aan spuitmengsel tydens toediening tot 'n minimum beperk word. Dit is daarom belangrik om aan die volgende vereistes te voldoen:

- **Volume:** 'n Spuitmengsel volume van minstens 30 ℓ per ha word aanbeveel. Hierdie produk is nie teen 'n verlaagde volume getoets nie. Die registrasiehouer kan nie effektiwiteit waarborg, of verantwoordelik gehou word vir enige nadelige effekte indien hierdie produk teen 'n laer volume, as hierbo aanbeveel, toegedien word nie.
- **Druppel bedekking:** 30 tot 40 druppels per cm<sup>2</sup> moet op die teikenarea herwin word.
- **Druppelgrootte:** 'n Druppelspektrum met 'n VMD van 250 tot 280 mikrons word aanbeveel. Beperk die produksie van druppels kleiner as 150 mikrons (hoë drywing en verdampingspotensiaal) tot 'n minimum.
- **Vlieghoogte:** Handhaaf die hoogte van die spuitbalk bo die teiken op 3 tot 4 meter. Moet nie spuit wanneer die vliegtuig duik nie, uitklim of draai nie.
- **Gebruik geskikte atomiseringsapparaat** wat die vereiste druppelgrootte en bedekking sal produseer, maar die minste verlies van produk verseker. Die spuitstelsel moet 'n druppelspektrum met die kleinste moontlike Relatiewe Span produseer.
- **Plaas al die atomiseerders in die binneste 60 tot 75 % van die vlerkspan om te verhoed dat druppels binne-in die vlerkpuntvorteks beweeg.**
- Die verskil in **temperatuur** tussen die nat- en droëboltermometer van 'n swaaihgrometer, moet nie 8 °C oorskry nie.
- **Stop bespuiting** indien die windspoed 15 km/uur oorskry.
- **Stop bespuiting tydens turbulente, onstabiele en droë toestande gedurende die hitte van die dag.**
- **Bespuiting onder temperatuur inversie toestande (deur bo of binne die inversie laag te spuit) en/of hoë lugvog toestande (relatiewe humiditeit 80 % en meer) mag tot volgende probleme aanleiding gee:**
  - verlaagde effektiwiteit aangesien die druppels as 'n wolk in die lug bly hang en moontlik verdamp (onvoldoende bedekking op teiken)
  - skade aan nie-teiken gewasse of sensitiewe areas as gevolg van wegdrywing van die spuitwolk na nie-teiken area.
- **Verseker dat die Lugbespuitingsoperateur presies weet watter lande bespuit moet word.**
- Dit is noodsaaklik om 'n versekering van die Lugbespuitingsoperateur te verkry dat aan al die bogenoemde vereistes voldoen sal word en dat data van belang in 'n logboek saamgevat is vir toekomstige verwysing.

## GRONDTOEDIENING (sagtevrugteboorde)

**Volume water wat in sagtevrugteboorde per hektaar toegedien moet word:**

Die volume water wat per hektaar in sagtevrugteboorde toegedien moet word, word volgens die Boomryvolume-formule soos deur Unrath beskryf, bereken:

**Die formule is as volg:**

$$\frac{\text{Boom hoogte} \times \text{boom diameter} \times 937}{Ry \text{ wydte}} = \text{Volume water/ha wat toegedien moet word}$$

Die afmetings wat in die formule gebruik word, is dié van die boom met volle blaarbedekking. Aangesien sagtevrugtebome nie altyd ten volle met blare bedek is nie, is die volume water wat per hektaar toegedien moet word tydens die vroeë groeistadia van die bome, as volg:

Van groenpunt tot 30 % blom	- 60 % van die HV wat toegedien moet word
Van ca. volblom tot ca. November	- 80 % van die HV wat toegedien moet word
Van ca. begin Desember	- 100 % van die HV wat toegedien moet word

Wanneer plaagbeheermiddels as lae volume bespuitings toegedien word, moet die korrekte hoeveelheid plaagbeheermiddel, soos bereken vir hoë volume bespuitings, per hektaar toegedien word

## MENGINSTRUKSIES

Vul die spuittenk ¼ tot ½ met water. Skakel roermeganisme (meganies of hidrolies) aan. Plaas die verlangde aantal **FARMAG METHOMYL 90 SP** wateroplosbare sakkies onmiddellik in die water in spuittenk. Moet nie die wateroplosbare sakkies met kaal hande aanraak nie of laat nat word vir dit by die inhoud van die spuittenk gevoeg word - dra droë rubberhandskoene. Vul die spuittenk verder met water tot die verlangde volume en hou aan met roer vir 'n paar minute voor gespuit word om die sakkies en die inhoud daarvan ten volle op te los

GEWAS/PLAAG	DOSIS / 100 ℓ WATER OF SOOS AANGEDUI	OPMERKINGS
<b>BONE</b> Amerikaanse (Afrika-) bolwurm	50g 250 g/ha	Dien toe sodra plaag opgemerk word en herhaal wanneer nodig. <b>Grondtoediening</b> Dien tot 500 ℓ spuitplossing per ha toe afhange van gewasgrootte. Bespuit deeglik om goeie benatting te verseker. <b>Lugtoediening</b> Dien in 30 ℓ water per ha toe (Lees 'LUGTOEDIENING').
<b>ANGELIERE</b> Angelierwurm	100g	Bespuit plante deeglik en verseker goeie bedekking. Herhaal weekliks.
<b>SITRUS</b> Amerikaanse (Afrika-) bolwurm Plantluise	20g 250g/ha	Dien toe sodra plaag opgemerk word. Herhaal wanneer nodig. <b>Grondtoediening</b> Dien toe as 'n ligte dekbespuiting. <b>Lugtoediening</b> Dien toe in 50 ℓ water per ha (Lees 'LUGTOEDIENING').
Witluis	20g	Dien as 'n voldekbepuiting met 'n hoë lugdruk spuit toe sodra nimfe op die vrugte opgemerk word. Herhaal wanneer nodig.
Lemoenvlinderlarwe	25g	Dien as 'n ligte dekbespuiting toe sodra larwes opgemerk word.
Rooidopluis	100g + 3 ℓ smalbestek minerale olie	<b>Korrektiewe behandeling</b> Dien toe wanneer 25-40 % van die vrugte besmet is met een of meer lewende nimfe of volwasse dopluis. <b>Draende bone</b> Dien slegs eenkeer toe tussen Desember en Maart en op vroeë kultivars tussen Desember en Januarie. Gebruik slegs hoë lugdruk handspruitgewere (kompressor-tipe). Moet nie ander konvensionele strusspuittoerusting gebruik nie.
Sagte groendopluis	100g + 500 mℓ smalbestek minerale olie	Dien toe as voldekbepuiting met 'n hoëdruk-spuitpomp sodra infestasië opgemerk word. <u>Moet nie minder</u> as 500 mℓ smalbestek minerale olie per 100 ℓ water gebruik nie.
Plantluise Ruitrug- en Grootkoolmotlarwes	25g	Dien toe as 'n voldekbepuiting met 'n hoëdruk-spuitpomp sodra nimfe van die nuwe generasie vanaf die blare na die takkies beweeg. Hierdie behandeling sal nie volwasse wasdopluis beheer nie.
<b>KOOLGEWASSE</b> (Brokkoli, Brusselse spruite, Kopkool, Blomkool) Amerikaanse (Afrika-) bolwurm	250 g/ha	Dien toe sodra plaag opgemerk word en herhaal wanneer nodig. <b>Grondtoediening</b> Dien in genoeg water toe om 'n egalige benatting te verkry en verseker goeie benatting.
	250 g/ha	<b>Lugtoediening</b> Dien toe in 30 ℓ water per ha (Lees 'LUGTOEDIENING').
Plantluise Ruitrug- en Grootkoolmotlarwes	50g	<b>Grondtoediening</b> Dien toe sodra plaag op blare opgemerk word en herhaal bespuitings elke 7 dae. Wanneer temperatuur en infestasië hoog is, herhaal bespuitings elke 3-5 dae. Dien tot 500 ℓ spuitplossing per ha toe. Verseker deeglike benatting van plante.
<b>GRAAN SORGHUM, KOR-ING, LUSERN, LUPIENE</b> Amerikaanse (Afrika-) bolwurm	200 g/ha 50 g 200 g/ha	Dien toe sodra plaag opgemerk word en herhaal wanneer nodig. <b>Grondtoediening</b> Lae volume: Dien toe in 100-200 ℓ water per ha. Hoë volume: Dien tot 400 ℓ spuitplossing per ha toe. <b>Lugtoediening</b> Dien in 30ℓ water per ha toe (Lees 'LUGTOEDIENING').
<b>MIELIES</b> Amerikaanse (Afrika-) bolwurm	200 g/ha 50 g 200 g/ha	Dien toe sodra larwes op die baarde opgemerk word maar voor hulle die kop binnegedring het. <b>FARMAG METHOMYL 90 SP</b> sal nie larwes wat die kop binnegedring het, beheer nie. <b>Grondtoediening</b> Lae volume: Dien toe in 100-200 ℓ water per ha. Hoë volume: Dien tot 400 ℓ spuitplossing per ha toe. <b>Lugtoediening</b> Dien toe in 30 ℓ water per ha (Lees 'LUGTOEDIENING').

GEWAS/PLAAG	DOSIS / 100 ℓ WATER OF SOOS AANGEDUI	OPMERKINGS
<b>MIELIES (voortgegaan)</b> Herfs Kommando Wurm ( <i>Spodoptera frugiperda</i> )	200 g/ha 50 g 200 g/ha	Verken landerye gereeld en <b>dien toe sodra plaag vir eerste keer opgemerk word</b> . As gevolg van die kort residuele periode van <b>FARMAG METHOMYL 90 SP</b> mag herhalende toedienings nodig wees in gevalle waar hewige infestaties voorkom. Let daarop dat <b>FARMAG METHOMYL 90 SP</b> sal nie larwes beheer wat die koppe of stam binnegedring het nie. Goëie bedekking van die blare en stamme is noodsaaklik om kontak met die plaag te verseker.  <b>Grondtoediening</b> Lae volume: Dien toe in 100-200 ℓ water per ha. Hoë volume: Dien toe tot met 400 ℓ spuit oplossing per ha. <b>Lugtoediening</b> Dien toe in 30 ℓ water per ha (Sien 'LUGTOEDIENING' hierbo)
<b>WEIDINGS &amp; ANDER GEWASSE</b> Kommandowurm	50 g/ha	<b>Grondtoediening</b> Dien toe in 400 ℓ water per ha wanneer infestatie opgemerk word.
<b>PERSKES</b> Valkodlingmot	Om die volume water waarin <b>FARMAG METHOMYL 90 SP</b> per ha toegedien moet word, te bepaal, lees ' <b>GRONDTOEDIENING: Volume water wat in sagtevrugteboorde per hektaar toegedien moet word</b> '.  50 g  50 g	<b>Vroeë variëteite</b> Dien 2 bespuitings toe: die eerste 4 weke voor oestyd en die tweede 10 dae later. Dra sorg dat die bome deeglik benat word. <b>Laat variëteite</b> Dien 3 bespuitings toe: die eerste 6 weke voor oestyd en die tweede en derde met tussenposes van 10 dae daarna. Dra sorg dat bome deeglik benat word. <b>Dien ook 'n geregistreerde plaagbeheermiddel vir die beheer van vrugtevlieë op beide vroeë en laat variëteite toe.</b>
<b>AARTAPPELS</b> Amerikaanse (Afrika-) bolwurm Aartappelmot (larwe)	50g  300 – 500 g/ha	Vir Amerikaanse bolwurm is een toediening genoeg om een uitbreking te beheer. Indien verdere uitbrekings plaasvind herhaal toediening soos nodig. Vir aartappelmot, begin toedien sodra die plant een maand oud is en herhaal toedienings weekliks gedurende die groeiseisoen. Aartappels moet ten minste tweemaal gedurende die groeiseisoen opgeërd word.  <b>Grondtoediening</b> Dra sorg dat plante goed bedek en benat word. Dien tot 1 000 ℓ spuitoplossing per ha toe. <b>Lugtoediening</b> Dien toe in 30 ℓ water per ha. Gebruik die hoër dosis as die spuitussenpose langer as een week is (Lees 'LUGTOEDIENING').
<b>ROSE</b> Plantluise	25g	Dien toe as 'n voldekbepuiting en herhaal wanneer nodig. Dien tot 500 ℓ spuitoplossing per ha toe.
<b>SONNEBLOMME</b> Amerikaanse (Afrika-) bolwurm	100 g + 100 mℓ sipermetrien EC per ha	<b>Lugtoediening</b> Dien toe in ten minste 30 ℓ water per ha sodra eiers of larwes op plante opgemerk word (ongeveer 6 weke na plant) (Lees 'LUGTOEDIENING'). <b>FARMAG METHOMYL 90 SP</b> plus <b>SIPERMETRIEN</b> is slegs effektief teen larwes op die blare en aan die buitekant van die kop en sal nie larwes wat reeds die kop binnegedring het, beheer nie. <b>FARMAG METHOMYL 90 SP</b> en sipermetrien is giftig vir bye en moet nie in die volblomstadium gespuit word nie.
<b>TABAK</b> Amerikaanse (Afrika-) bolwurm  Tabakslak  Groenstinkbesies (Pentatomidae) Blaarmyner	50 g  250 g/ha  50 g	Dien toe sodra plaag opgemerk word en herhaal wanneer nodig.  <b>Grondtoediening</b> Dien tot 500 ℓ spuitoplossing per ha toe.  <b>Lugtoediening</b> Dien toe in 30 ℓ water per ha. (Lees 'LUGTOEDIENING').  <b>Lugtoediening</b> Dien toe sodra plaag opgemerk word en herhaal elke week. Dien tot 500 ℓ spuitoplossing per ha toe. Benat plante deeglik.
<b>TAMATIES</b> Amerikaanse (Afrika-) bolwurm Plantluise Valslandmeter Blaarmyner Blaaspoottjies	50 g	<b>Grondtoediening</b> Dien toe as 'n voldekbepuiting met vrugtet van vroeër indien nodig en herhaal met tussenposes van 7-10 dae gedurende die groeiseisoen.



FARMAG

# METHOMYL 90 SP

Reg. No. / Nr L3436 Act No. 36 of 1947/ Wet Nr 36 van 1947

**INSECTICIDE**



**READ THE LABEL AND ATTACHED PACKAGED LEAFLET BEFORE USE  
KEEP OUT OF REACH OF CHILDREN AND ANIMALS**

**IRAC INSECTICIDE GROUP CODE**

**1A**

**IRAC INSEKODER GROEPKODE**

A water soluble, contact insecticide for the control of various insects on crops as indicated.

'n Water oplosbare, kontak-insekdoder vir die beheer van verskeie insekte op gewasse soos aangedui.

**ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL:**

Methomyl (carbamate).....900 g/kg.....Metomil (karbonaat)



**DANGER**

**Hazard Statements:**

Fatal if swallowed or if inhaled.  
Toxic in contact with skin.  
Causes mild skin irritation.  
Very toxic to aquatic life.

**Precautionary Statements:**

Do not breathe dust.  
In case of inadequate ventilation wear respiratory protection.  
IF SWALLOWED: Immediately call a poison centre or doctor.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Immediately call a poison centre or doctor.

Batch No:

D.O.M:

D.O.E:

Net Mass:

See reverse of packaging for details.

FOR FULL PARTICULARS SEE ATTACHED PAMPHLET.  
VIR VOLLEDIGE BESONDERHEDE KYK AANGEHEGTE ETIKET.

UN No. / VR Nr: 2588



REGISTRATION HOLDER/ REGISTRASIEHOUER  
Castle Ag-Chem (Pty) Ltd  
Reg. Nr.: Reg. No.2007/033120//07  
61 Marshall Drive, Old Mill Industrial Park,  
Mount Edgecombe, South Africa, 4300  
Tel: 031 003 3486

Poison Information Helpline (24 hrs): 0861 555 777



**BARCODE**

100644

165(H) x 140(W) mm

**CYAN MAG YEL BLK**

100644