


METHOMEX[®] 900 SP

Reg. no. L5254 Act/Wet 36 of/van 1947
N-AR 0498; W130714

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

GROUP	1A	INSECTICIDE
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A water soluble powder insecticide for the control of pests in crops as indicated.	'n Wateroplosbare insekdoderpoeier vir die beheer van plae in gewasse soos aangedui.
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 <p>DANGER</p>	<p>Hazard statements Fatal if swallowed. Fatal if inhaled. Very toxic to aquatic life with long lasting effects.</p> <p>Precautionary statements Do not breathe dust/fume/mist/vapours/spray. Wash hands and face thoroughly after handling.</p>
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ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

methomyl (carbamate) 900 g/kg metomil (karbamaat)

NET MASS/NETTO MASSA

..... kg

REGISTRATION HOLDER/REGISTRASIEHOUER

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UN no.: 2757

EMERGENCY NUMBERS:

Griffon Poison Information Centre: +27 82 446 8946
Tygerberg Poison Information Centre: +27 861 555 777

Batch number
Date of manufacture
Expiry date

Lotnommer
Datum van vervaardiging
Vervaldatum

WARNINGS

- Fatal if swallowed.
- Fatal if inhaled.
- Very toxic to aquatic life with long lasting effects.

Withholding periods (Minimum number of days between last application and harvest.):

Barley	35 days
Beans	14 days
Citrus: 20 g/100 L dosage	2 days
Citrus: greater than 20 g/100 L dosage	28 days
Cruciferae	4 days
Grain sorghum, maize, pastures, wheat, lupins, lucerne, tobacco (flue-cured)	7 days
Peaches	16 days
Potatoes	3 days
Tobacco (air-cured)	14 days
Tomatoes	2 days

- **METHOMEX® 900 SP MAY CAUSE YELLOWING OF THE LEAF TIPS WHEN USED ON CERTAIN CARNATION VARIETIES.**
- **DO NOT USE METHOMEX® 900 SP IN COMBINATION WITH G49 WETTING AGENT ON TABOCCO SEEDBEDS OR CITRUS.**
- Handle with extreme care.
- Poisonous by contact, swallowing or inhalation: **small quantity may be fatal if swallowed or inhaled.**
- Toxic to fish, bees and wildlife.
- Store under lock and key, away from foodstuffs and animal feed.
- In case of poisoning, call a doctor immediately and make this label available.
- **Aerial application:** Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings. Do not apply over water or adjacent areas that are not under treatment or allow the spray mist to drift over these areas.
- **Re-entry:** Do not enter treated area within 2 days after application unless wearing protective clothing.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not guarantee that it will be effective under all conditions. The activity 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 pests against the remedy as

well as by the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, and the environment or harm to humans or animals or for lack of performance of the remedy concerned due to failure by 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

- Keep out of reach of children.
 - Read carefully and follow all instructions.
 - If medical advice is needed, have product container or label at hand.
 - Do not breathe dust/fume/mist/vapours/spray.
 - Wash hands and face thoroughly after handling.
 - Use only outdoors or in a well-ventilated area.
 - Avoid release to the environment.
 - In case of inadequate ventilation, wear respiratory equipment.
 - IF SWALLOWED: Rinse mouth. Get emergency help immediately. Specific treatment is urgent – see information on the label and Section 4 of the SDS.
 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. get emergency help immediately. Specific treatment is urgent – see information on the label and Section 4 of the SDS.
 - Store locked up in a well-ventilated place. keep container tightly closed.
 - Collect spillage.
 - Dispose of contents/container to a licensed waste facility and in accordance with local and national regulatory requirements.
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- Avoid contact with eyes, skin or clothing.
 - Wear protective clothing (overall, rubber boots, gloves and respirator).
 - Wash contaminated clothing daily.
 - In case of skin contact, wash thoroughly with soap and water.
 - Do not eat, drink or smoke while applying or preparing the spray mix, or before washing face and hands.
 - Prevent drift of spray onto other crops, grazing, rivers, dams and any area not under treatment.
 - Prevent contamination of food, feeds, drinking water and eating utensils.
 - Clean applicator before using for other materials and dispose of wash water where it will not contaminate crops, grazing, rivers or dams.
 - Destroy empty container in the prescribed manner and never use for any other purpose.

RELEVANT SUBSTANCES

Chemical name	w/w %	CAS no.
Methomyl	>60%	16752-77-5

FIRST AID

Acute exposure to **METHOMEX® 900 SP** may require decontamination and life support for the victims. Provide this label and SDS to medical personnel for treatment. Emergency personnel should wear protective clothing appropriate to the type and degree of contamination.

Immediately remove contaminated clothing and remove the affected person from the contamination area. Keep the person warm, calm and covered up. First Aid personnel should pay attention to their own safety.

Take the container label or product name with you when seeking medical attention.

Eye contact: Rinse/flush the eyes gently with water from the eye wash fountain for several minutes (at least 15 minutes), while holding the eyelids apart. Check for and remove contact lenses if easy to do so. Continue rinsing. Obtain medical attention if irritation occurs and persists.

Skin contact: Remove all contaminated clothing and shoes. Rinse the skin with plenty of water for 15 to 20 minutes under the safety shower. Contact a poison control centre or medical practitioner if irritation occurs or persists. Wash contaminated clothing before re-use.

Inhalation: Immediately remove the affected victim from exposure to an area with fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the product; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Obtain immediate medical attention.

Ingestion: Obtain immediate medical attention - call a poison control centre or medical practitioner immediately for treatment advice. If conscious, rinse mouth thoroughly with water. Never give anything by mouth to an unconscious or convulsing person. Do not induce vomiting unless directed to do so by a medical professional. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomits. Rinse mouth.

TOXICOLOGICAL INFORMATION

Notes to physician and antidotes

Cholinesterase inhibitor: Administer Atropine sulphate intravenously (1-4 mg) every 5-15 minutes until signs of atropinisation (dry flushed skin and tachycardia) appear. Pralidoxime (2-PAM, Protopam) and other oximes are contra-indicted.

Symptoms of human poisoning, acute and delayed

Methomyl symptoms of toxicity include, but are not limited to, increased salivation, weakness, blurred vision, pupillary constriction, twitching of muscle and loss of coordination, confusion, headache, nausea, abdominal cramps, burning sensation, coughing, wheezing, slow heart rate, shortness of breath, and vomiting.



After severe poisoning, symptoms of twitching, giddiness, confusion, muscle incoordination, heart irregularities, loss of reflexes, slurred speech, paralysis of the muscles of the respiratory system, and death. The target organs of Methomyl toxicity include nerves, cardiovascular system, liver, and kidneys.

NOTICE TO THE USER: This agricultural remedy is to be used only according to the directions of this label. It is an offense under the Act to use this product inconsistent with the directions on the label.

RESISTANCE WARNING

For resistance management **METHOMEX® 900 SP** is classified as a group code 1B insecticide. Any insect population may contain individuals naturally resistant to **METHOMEX® 900 SP** and other group code 1B insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **METHOMEX® 900 SP** and other group code 1B insecticides.

To delay insecticide resistance:

- Avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate or tank mix with products from different insecticide group codes.
- Integrate the control methods (chemical, cultural, biological) into pest control programmes.

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

MODE OF ACTION

1A: Acetylcholinesterase (ACHE) inhibitors – Inhibit ACHE, causing hyperexcitation. ACHE is the enzyme that terminates the action of the excitatory neurotransmitter acetylcholine at nerve synapses.

DIRECTIONS FOR USE

Use only as indicated.

Mixing instructions

Add the required amount to a half-full spray tank and mix thoroughly and fill up slowly while agitating (mechanical or hydraulic). Commence agitating of mixture a few minutes before starting to spray. Agitation is necessary to ensure thorough mixing of insecticide.

APPLICATION

Aerial application

Aerial application of **METHOMEX® 900 SP** may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SANS Code 10118(SABS 0118) (Aerial Application of Agricultural 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/ha is recommended. As this product has not been evaluated at a reduced rate, the registration holder cannot guarantee efficacy, or be held

responsible for any adverse effects if this product is applied aurally at a lower volume than recommended above.

- **Droplet coverage:** 30-40 droplets/cm² must be recovered at the target area.
- **Droplet size:** A droplet spectrum with a VMD of 250-280 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 3-4 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 60-75% 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:
 - a) reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage).
 - b) 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.

APPLICATION RATES

CROP AND TARGET	DOSAGE	REMARKS
Barley African bollworm (American bollworm) (<i>Helicoverpa armigera</i>)	200 g/ha	Only to be used under the recommendation of SAB Maltings. Ground application: Low volume: Apply 200 L water. Aerial application: Apply in 30 L water as soon as worms appear. Repeat if necessary.



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CROP AND TARGET	DOSAGE	REMARKS
Beans African bollworm (<i>Helicoverpa armigera</i>)	250 g/ha	Ground application: Ensure good coverage on the plants and apply up to 500 ℓ spray mixture/ha. Aerial application: Apply in 30 ℓ water as soon as infestation appears. Repeat if necessary.
Carnations Carnation worm (<i>Epichoristodes acerbella</i>)	100 g/100 L water	Ensure good coverage of the whole plant. Repeat weekly.
Citrus Aphids (<i>Toxoptera citricida</i> ; <i>Aphis gossypii</i>) African bollworm (American bollworm) (<i>Helicoverpa armigera</i>) Mealybugs (<i>Planococcus citri</i> ; <i>Nipaecoccus vastator</i> ; <i>Paracoccus burnerae</i>) Orange dog caterpillar (<i>Papilio spp</i>) Red scale (<i>Aonidiella aurantii</i>) Soft green scale (<i>Pulvinaria aethiopica</i>)	20 g/100 L water 20 g/100 L water 25 g/100 L water 100 g plus 3 L light narrow range mineral oil per 100 L water. 20g plus 500 ml light narrow range mineral oil/100 L water.	Apply as a full cover spray when aphids and/or worms appear. Repeat when necessary. Apply as a full cover spray with a high pressure sprayer as soon as young nymphs appear on the fruit. Repeat if necessary. Apply as a light cover spray as soon as larvae are noticed Corrective treatment: Apply when 25-40 % of the fruit is infested with one or more live nymphs or adult scale. WARNING: Fruit bearing trees: Only one application must be made between December and March for late cultivars. Early cultivars may only be sprayed in December or January and not later than January. Application must be made with high pressure air compressor handguns. Do not apply with conventional citrus spray rigs. Apply as a full cover spray with a high pressure pump when the first visible signs of infestation are seen. Do not use less than 500 ml oil 100 L water.

CROP AND TARGET	DOSAGE	REMARKS
<p>Citrus continue Waxy scale (<i>Gascardia destructor</i>)</p>	25 g/100 L water	Apply as a full cover spray with a high pressure pump as young nymphs of a new generation move from the leaves to the twigs. This treatment will not be successful against adult waxy scale.
<p>Cruciferae Larvae of the diamond back moth (<i>Plutella xylostella</i>) Greater cabbage moth (<i>Crocidolomia binotalis</i>) Aphids (<i>Brevicoryne brassicae</i>) African bollworm (American bollworm) (<i>Helicoverpa armigera</i>)</p>	50 g/100 L water 250 g/ha	<p>Apply when worms first appear on the leaves. Use up to 500 L spray mixture/ha. During hot weather and peak infestations, shorten the spray intervals to between 3 and 5 days. Ensure thorough wetting of the plants.</p> <p>Ground application: Apply in sufficient water to ensure good coverage. Aerial application: Apply in 30 L water as soon as worms appear. Repeat if necessary.</p>
<p>Grain Sorghum, Wheat, Lupins and Lucerne African bollworm (American bollworm) (<i>Helicoverpa armigera</i>)</p>	200 g/ha 200 g/ha 50 g/100 L water	<p>Aerial application: Apply in 30 L water when pests are noticed. Repeat as necessary.</p> <p>Ground application: Low volume. Apply in 200 L water.</p> <p>Apply up to 400 L spray mixture/ha.</p>
<p>Grazing and other Crops Army worm (<i>Spodoptera exempta</i>)</p>	50 g/ha	Ground application: Apply in 400 L water as soon as pest is noticed.
<p>Maize African bollworm (American bollworm) (<i>Helicoverpa armigera</i>)</p>	200 g/ha 200 g/ha 50 g/100 L water	<p>Aerial application: Apply in 30 L water as soon as worms are noticed on the silks. METHOMEX 900 SP will not control worms which have already entered the cob.</p> <p>Ground application: Low volume. Apply in 200 L water. Apply up to 400 L spray mixture/ha.</p>



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CROP AND TARGET	DOSAGE	REMARKS
Peaches False codling moth (<i>Cryptophlebia leucotreta</i>)	50 g/100 L	Early cultivars: Apply two sprays ensuring that the tree is thoroughly wetted. Apply the first spray 4 weeks before harvest and the second 10 days later. Also apply a registered product for fruit fly control. Late cultivars: Apply three sprays beginning 6 weeks before harvest and repeat at 10 day intervals. Ensure good coverage of the trees. Also apply a registered product for fruit fly control.
Potatoes Potato tuber moth (<i>Phthorimaea operculella</i>) African bollworm (American bollworm) (<i>Helicoverpa armigera</i>)	300–500 g/ha 50 g/100 L water	Aerial application: Apply in 30 L water. Use the higher dosage if the spray interval exceeds one week. For tuber moth, begin application as soon as the plant is one month old and repeat applications weekly throughout the growing season. Potatoes must be ridged at least twice during the growing season. For African bollworm one application is enough to control one outbreak. If further outbreaks occur, repeat application as necessary. Ground application: Ensure good coverage and wetting of the plant. Apply up to 1000 L spray mixture/ha.
Roses Aphids (<i>Macrosiphum rosae</i>)	25 g/100 L water	Apply as a full cover spray. Repeat as necessary. Apply up to 500 L spray mixture/ha.
Tobacco Leafminer (<i>Phthorimaea operculella</i>) African bollworm (American bollworm) (<i>Helicoverpa armigera</i>) Tobacco slug (<i>Oulema bilineata</i>) Stinkbug (<i>Pentatomidae spp</i>)	50 g/100 L water	Ground application: Apply when pests are noticed. For leaf miner, spray weekly and ensure thorough wetting of plants. Apply up to 500 L spray mixture/ha.



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CROP AND TARGET	DOSAGE	REMARKS
<i>Tobacco continue</i> African bollworm (American bollworm) (<i>Helicoverpa armigera</i>) Tobacco slug (<i>Oulema bilineata</i>) Stinkbug (<i>Pentatomidae spp</i>)	250g/ha	Aerial application: Apply in 30 L water when pests are noticed. Repeat as necessary.
Tomatoes African bollworm (<i>Helicoverpa armigera</i>) Leafminer (<i>Phthorimaea operculella</i>) Aphids (<i>Aphididae spp</i>) Thrips (<i>Thrips tabaci</i>)	50 g/100 L water	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 the growing season.