Orthene 75 SP
Reg. No.: L0190 Act /Wet No. 36 of/van 1947

A systemic and contact water soluble insecticide for the control of pests as mentioned on the crops listed.

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IRAC INSECTICIDE GROUP CODE: 1B
IRAC INSEKDOERGROEP KODE:

ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL:
Acephate/Asefaat..............................organophosphate/organofosfaat
750 g/kg

Registration holder / Registrasiehouer:
Volcano AgroScience (Pty) Ltd trading as ARYSTA LifeScience South Africa (Pty) Ltd
7 Sunbury Office Park,
off Douglas Saunders Drive,
La Lucia Ridge, South Africa, 4019
Tel: 031 514 5600

Contents/Inhoud

Batch No. / Lot Nr.:

Date of manufacture: / Datum van vervaardiging:

U.N. No. 2783

READ THE LABEL IN DETAIL BEFORE OPENING THE CONTAINER. / LEES DIE ETIKET VOLLEDIG VOORDAT DIE HOUER OOPGEMAAK WORD.
For full particulars, see enclosed leaflet. / Vir volledige besonderhede, sien ingeslote pamflet.
Orthene 75 SP
Reg. No.: L0190 Act/Wet No. 36 of/van 1947

A systemic and contact water soluble insecticide for the control of pests as mentioned on the crops listed.

’n Sisteimiese- en kontak-wateroplosbare insekdoder vir die beheer van plae soos aangedui op die genoemde gewasse.

IRAC INSECTICIDE GROUP CODE / IRAC INSEKDOERGROEP KODE: 1B

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CAUTION / VERSIGTIG

WARNINGS:
• Allow the following periods between last application and harvesting:
  Cruciferae..................................................................................................................................3 days
  Tomatoes...................................................................................................................................3 days
  Potatoes.....................................................................................................................................14 days
  Tobacco.....................................................................................................................................14 days
  Peaches and Plums..................................................................................................................28 days
  Apples and Pears....................................................................................................................30 days
  Tree Nuts..................................................................................................................................35 days

• Handle with care.
• May irritate skin and eyes
• Toxic to fish, bees and wildlife.
• Store in a cool, dry place away from food, feeds fertilizer and other agricultural chemicals.
• Keep out of reach of children, animals and uninformed persons.
• Re-entry: Do not enter treated area until spray deposit has dried unless wearing protective clothing.
• Aerial application: Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Do not spray over, or allow drift to contaminate water or adjacent areas.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it may be effective under all conditions. The activity and effect thereof may be affected by factors such as abnormal 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, the environment or harm to man 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
• Do not inhale the powder dust or spray mist.
• Avoid contact with eyes and prolonged or repeated skin contact.
• Wash contaminated clothing after use.
• Wash with soap and water after use or accidental skin contact.
• Do not eat, drink or smoke whilst mixing or applying the remedy or before washing hands and face.
• Prevent spray drift onto other crops, grazing, rivers, dams or areas not under treatment.
Clean applicator before using with other remedies and dispose of wash water where it will not contaminate crops, grazing and dams.

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

Invert the empty container over the spray or mixing tank to make sure that the container is empty before destroying the container.

Destroy empty container by perforation and flattening and do not re-use for any other purpose.

SYMPTOMS OF POISONING
Nausea, headache, tiredness, giddiness, blurred vision and papillary constriction. Depending on severity of poisoning these symptoms become worse with the onset of vomiting, abdominal pain, diarrhea, sweating and salivation. Severe poisoning is manifested by extreme salivation, involuntary defecation and urination, sweating, lacrimation, bradycardia and hypotension.

FIRST AID:
Always obtain treatment by a doctor immediately.

- Remove patient from source of poisoning to fresh air and keep him quiet and reassured.
- In case of accidental contact carefully remove contaminated clothing and rinse contaminated body area thoroughly with soap and plenty of water. Avoid abrasion of the skin.
- Flush contamination out of eyes with clean water for at least 15 minutes.
- If swallowed, wash out mouth with water and obtain medical assistance. If necessary, first aid should include mouth-to-nose respiration, cardiac massage and avoidance of injury in patient with trauma.
- Take the patient to a doctor immediately and show him this label.

INFORMATION FOR DOCTOR
Atropine must be administered as early as possible. Therapeutic objective is to achieve atropinisation. In less severe cases begin with 2 mg atropine intravenously for adults or 0,05 mg atropine / kg body mass intravenously for children under 12 years of age. Repeat at 15 to 30 minute intervals. In severe cases a total atropine dose of 20 to 80 mg in the first hour may be necessary with repeated drug administrations at 3 to 10 minute intervals. Call the nearest poison centre for more details.

RESISTANCE WARNING
For resistance management, ORTHENE 75 SP is a Group Code 1B insecticide. Any insect population may contain individuals naturally resistant to ORTHENE 75 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 ORTHENE 75 SP or any other Group Code 1B insecticides.

Since the presence of resistant insects is difficult to detect prior to insecticide application, it is of the utmost importance that treated areas be inspected at regular intervals to identify the occurrence of insecticide-resistant insects timeously. Arysta LifeScience South Africa (PTY) LTD will not accept liability for performance failures in the event of a build-up of resistant insects resulting from inadequate resistance management practices as indicated on the label.

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

For specific information on resistance management contact your local Arysta LifeScience South Africa representative.

DIRECTIONS FOR USE
Use only as indicated

It is a violation of Government Notices R.1716 of 26 July 1991 and R.181 of 7 February 2003 issued in terms of the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No.36 of 1947), to use this product in a manner inconsistent with its labelling, or to decant this product into another container.
Compatibility:
ORTHENE 75SP is compatible with MANCOZEB 800 WP (Reg nr.:L7352) but should be tested on a small scale when mixed with other pesticides to ensure that it is safe to the crop.

Mixing instructions:
- Half fill the spray tank with water and add the required amount of ORTHENE 75 SP to the water whilst agitating.
- Ensure that all the lumps have dissolved before adding the rest of the water.
- Maintain agitation during mixing and application.

METHOD OF APPLICATION
Use only correctly calibrated equipment that is suitable for the task and in good working order to ensure thorough wetting of all parts of the plant.

AERIAL APPLICATION
Do not commence or arrange for aerial application before consulting with your ORTHENE 75 SP representative.

Aerial application of ORTHENE 75 SP may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SANS Code 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 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 cm² 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.
- **Apply before the crop becomes too dense, thus preventing proper coverage of the plants.**
- **Use suitable atomising equipment** (hydraulic nozzles or rotary atomisers) 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 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.**

DOSAGE RATES FOR APPLICATION

<table>
<thead>
<tr>
<th>CROP AND PEST</th>
<th>DOSAGE</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRUCIFERAE</td>
<td>350 – 500 g/ha</td>
<td>Ensure complete coverage of plants. The addition of a wetting agent is recommended. Repeat every</td>
</tr>
<tr>
<td>CROP AND PEST</td>
<td>DOSAGE</td>
<td>REMARKS</td>
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<tr>
<td>-------------------------------</td>
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</tr>
<tr>
<td>Diamond back moth larvae</td>
<td></td>
<td>7 – 10 days. Lower rate should be repeated every 7 days and the higher rate is recommended if infestation is present at time of application.</td>
</tr>
<tr>
<td><strong>Tomatoes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American bollworm</td>
<td>75 – 100 g / 100 ℓ water</td>
<td>Apply a minimum of 1000 ℓ water /ha and increase this spray volume to a maximum of 2000 ℓ /ha according to plant size. Ensure thorough coverage of plants. Repeat application every 7 days once pest is noticed. Use higher rate as a first treatment when infestation is present. Repeat application after rain.</td>
</tr>
<tr>
<td>Thrips</td>
<td>100 g / 100 ℓ water</td>
<td>Apply as a full cover spray and ensure thorough coverage of plants. Where a heavy infestation occurs a second application is recommended 7 – 10 days after first application to obtain good initial control. If necessary, repeat application every 7 – 10 days.</td>
</tr>
<tr>
<td><strong>Potatoes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuber moth</td>
<td>500 g / ha</td>
<td>Start application when plants are one month old and repeat every 7 – 14 days. Apply as a full cover spray in 200 to 500 ℓ water / ha depending on plant size.</td>
</tr>
<tr>
<td>Aphids</td>
<td>500 – 750 g / ha</td>
<td>Apply at first sign of infestation and repeat every 7 days. When the aphid infestation is high, use the higher rate to ensure initial control. Apply as a full cover spray in 200 to 500 ℓ water / ha depending on plant size.</td>
</tr>
<tr>
<td><strong>Aerial application</strong>:</td>
<td></td>
<td>Apply in 30 ℓ of water / ha</td>
</tr>
<tr>
<td><strong>Peaches</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Dessert and Canning)</td>
<td>25 g / 100 ℓ water High volume:</td>
<td>Western and Eastern Cape only: Apply as a full cover spray when pest is noticed and repeat as necessary. Do not apply more than two ORTHENE 75 SP sprays per season. (Do not apply during blossom as toxic to bees). Do NOT spray after petal fall. If application coincides with the Oriental fruit moth day degree model, Oriental fruit moth may be suppressed but not controlled.</td>
</tr>
<tr>
<td>Aphids</td>
<td>0,38 to 0,63 kg/ha High volume:</td>
<td>Apply when pest is first noticed and repeat as necessary. For American bollworm apply at 75% petal drop and repeat 14 days later. Do not apply more than two ORTHENE 75 SP sprays per season. Do not apply during blossom as toxic to bees. Do NOT spray after petal fall.</td>
</tr>
<tr>
<td>Antestia , American Bollworm,</td>
<td>50 g / 100 ℓ water High volume:</td>
<td>Western Cape only: Apply as a full cover spray to ensure thorough wetting and repeat as necessary. Do not apply more than two ORTHENE 75 SP sprays per season. Do not apply during blossom as toxic to bees. Do NOT spray after petal fall.</td>
</tr>
<tr>
<td>Codling moth, Fruit nibbler,</td>
<td>1,25 to 1,75 kg / ha Low volume:</td>
<td></td>
</tr>
<tr>
<td>Banded fruit weevil (Snout beetle)</td>
<td>1,0 to 1,4 kg / ha</td>
<td></td>
</tr>
<tr>
<td><strong>Plums</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American bollworm, Antestia</td>
<td>50 g / 100 ℓ water</td>
<td>Western Cape only: Apply as a full cover spray to ensure thorough wetting and repeat as necessary. Do not apply more than two ORTHENE 75 SP sprays per season. Do not apply during blossom as toxic to bees. Do NOT spray after petal fall.</td>
</tr>
<tr>
<td>bug</td>
<td></td>
<td></td>
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<tr>
<td>Codling moth, Fruit nibbler,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banded fruit weevil (Snout beetle), Leafroller</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CROP AND PEST</td>
<td>DOSAGE</td>
<td>REMARKS</td>
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<tr>
<td>APPLES AND PEARS</td>
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</tr>
<tr>
<td>Codling moth</td>
<td>50 g / 100 ℓ water</td>
<td>Apply as a full cover spray at 75% petal fall and repeat at an interval of 14 days. Do not apply more than two sprays. The last spray must be applied before the end of November.</td>
</tr>
<tr>
<td>American bollworm</td>
<td>50 g / 100 ℓ water</td>
<td>Apply as a full cover spray and repeat if necessary. Do not apply more than two sprays per season. The last spray must be applied before the end of November.</td>
</tr>
<tr>
<td>Banded fruit weevil (Snoutbeetle)</td>
<td>50 g / 100 ℓ water</td>
<td>Apply as a full cover spray between 75% petal fall and the end of November. Sprays should be repeated after 14 days. Do not apply more than two sprays per season.</td>
</tr>
<tr>
<td>Leafroller, Antestia, Fruit nibbler</td>
<td>50 g / 100 ℓ water</td>
<td>Applications for the control of Codling moth, snoutbeetles, and bollworm will also control these pests if present at time of spraying. Do not apply more than two sprays. The last spray must be applied before the end of November.</td>
</tr>
<tr>
<td>TABLE AND WINE GRAPES</td>
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<tr>
<td>Weevil (snout beetle)</td>
<td>50 – 75 g / 100 ℓ water</td>
<td>Apply as a full cover spray at 250 – 1500 ℓ spray mixture per ha as soon as the pest is noticed. Use higher dosage rate in cases of severe infestation. Repeat after 7 – 14 days if necessary</td>
</tr>
<tr>
<td>TOBACCO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>American bollworm</td>
<td>200 g / 100 ℓ water</td>
<td>Ground Application Apply as a full cover spray. Where a heavy infestation occurs a second application is recommended 7 days later. Repeat if necessary. <strong>Ensure thorough coverage of all leaves.</strong></td>
</tr>
<tr>
<td>Leaf miner</td>
<td>200 g / 100 ℓ water</td>
<td>Apply as a full cover spray. <strong>Ensure thorough coverage of all leaves.</strong> Where a heavy infestation occurs a second application is recommended 7 days later. Repeat if necessary.</td>
</tr>
<tr>
<td>Slug</td>
<td>200 g / 100 ℓ water</td>
<td>Apply as a full cover spray and repeat application every 7 days up to 14 days before harvest. When a heavy infestation occurs, apply 400g ORTHENE 75 SP / 100 ℓ water as a full cover spray and re-apply 200g ORTHENE 75 SP / 100 ℓ water 7 days later.</td>
</tr>
<tr>
<td>Cutworms</td>
<td>165 g / 100 ℓ water</td>
<td>Pour 30 mℓ of the solution over each young plant. Repeat if necessary.</td>
</tr>
<tr>
<td>Green aphid (Myzus persicae)</td>
<td>200 g / 100 ℓ water</td>
<td>Apply as a full cover spray and ensure thorough coverage of all leaves. Where a heavy infestation occurs a second application is recommended 7 days after the first application to obtain good initial control. If necessary repeat application every 7 days</td>
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</tr>
<tr>
<td><strong>TOBACCO</strong></td>
<td></td>
<td></td>
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<tr>
<td>Seed beds</td>
<td></td>
<td></td>
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<tr>
<td>(Cutworm and leaf-eating insects)</td>
<td></td>
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</tr>
</tbody>
</table>
| Aerial application: American bollworm | 1 g/m² | **Spray**
| | | Mix 200 g ORTHENE 75 SP / 100 ℓ water and use a coarse spray at the rate of 500 ml solution/m² every 7 days to get good run-off onto the soil
| | | **OR**
| | | **Drench**
| | | Mix 65 g ORTHENE 75 SP / 100 ℓ water and use a watering can to apply 1,5 ℓ solution solution/m² every 7 days.
| | | Aerial application (see also instructions under **DIRECTIONS FOR USE**):
| | | 1. Apply only when larvae are smaller than 12.5mm
| | | 2. Repeat application 7 days later – thereafter when necessary.
| | | 3. Applications must preferably be made in the morning before the larvae migrate to the lower leaves.
| | | Application to high density tobacco is not recommended.
| | 1000 g/ha |         |
| **TREE NUTS** | 75 g / 100 ℓ water | **Make the first application after flowering stage when the pest activity is first observed but before the neonate larvae enter the nuts.**
| (Includes almonds, pecans, hazelnuts, macadamias, cashew nuts and pistachio nuts) | | **All applications should be made as a medium to full cover spray.**
| **Macadamia nut borer (MNB), Thaumatotibia (=Cryptophlebia) batrachopa (Meyrick, 1908)** | | **Do not exceed more than 4 applications.**
| (Emergency registration) | | |

**Acknowledgement:**