Spruzit®
MAPP 18434
An emulsifiable concentrate formulation containing 4.59 g/l (0.459 % w/v) pyrethrins and 825.3 g/kg of naturally derived rapeseed oil.
Spruzit is a broad spectrum, contact insecticide for use against biting and sucking insects in a wide range of edible and non-edible crops grown in protected and outdoor situations.

Net content 10 litres
Batch No.:

THE (COSHH) CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS MAY APPLY TO THE USE OF THIS PRODUCT AT WORK.

SAFETY PRECAUTIONS

Operator protection
WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate and contaminated surfaces.
WEAR SUITABLE PROTECTIVE GLOVES when using hand-held sprayers.
However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.
WASH HANDS AFTER USE.

Environmental protection
Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.

Storage and disposal
KEEP OUT OF REACH OF CHILDREN.
KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
EMPTY CONTAINER COMPLETELY and dispose of safely.

IMPORTANT INFORMATION
FOR USE ONLY AS A PROFESSIONAL INSECTICIDE

Crops/Situations:
Outdoor crops of: Beans without pods- fresh, broad bean - fresh, bulb onion, carrot, celeriac, dwarf French bean, edible podded pea, garlic, horseradish, Jerusalem artichoke, leek, lettuce, parsley root, parsnip, radish, red beet, runner bean, salsify, shallot, soya bean – fresh, spinach, swede, turnip, vining pea, cabbage, kohlrabi and asparagus.

Protected crops of: Angelica, balm, basil, bay, caraway leaves, celery leaves, chives, coriander leaves, dill leaves, edible flowers, fennel leaves, herbs, hyssop, lovage leaves, marjoram, mint, oregano, parsley, rosemary, sage, salad burnet, savory, sweet cicely, tarragon

Permanent protection with full enclosure: Cabbage (6 leaf stage), lettuce (up to and including head forming), cucumber, tomato, herbs (other than those outdoors) and ornamental plant production
Maximum individual dose:  
Maximum number of treatments:  See DIRECTIONS FOR USE  
Latest time of Application:  

Other specific restrictions:  

1) The maximum concentration must not exceed 2 litres of product in 100 litres water.  
2) Applications can only be made to non-edible parts of the asparagus crop.  
3) For protected crops, treatment must only be made under ‘permanent protection’ situations which provide full enclosure (including continuous top and side barriers down to below ground level) and which are present and maintained over a number of years.  
4) Reasonable precautions must be taken to prevent access of birds, wild mammals and honey bees to treated crops.  
5) To minimise airborne environmental exposure, vents, doors and other openings must be closed during and after application until the applied product has fully settled.  

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS  

Spruzit  

TOXIC TO AQUATIC ORGANISMS WITH LONG LASTING EFFECTS  
Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty triple rinsed clean containers which can be disposed of as non-hazardous waste.  

To avoid risks to human health and the environment, complying with the instructions for use  

MAPP 18434  

This label is compliant with the CPA Voluntary Initiative Guidance
Marketing company:

Certis Europe B.V.
Suite 5, 3 Riverside, Granta Park, Great Abington, Cambridgeshire, CB21 6AD

Tel: 0044 (0)845 373 0305
Fax: 0044 (0)1223 891210
E-mail: certis@certiseurope.co.uk

For technical and non-emergency calls - phone 0044 (0)1223 894261
For advice on medical emergencies, fires, spillages or chemical hazards ONLY – phone 0870 190 6777

Authorisation holder:
W. Neudorff GmbH KG, An der Mühle 3 D-31857, Emmerthal, Germany

®Spruzit is a registered trademark of W. Neudorff GmbH KG.

CONDITIONS OF SUPPLY: The Seller warrants that the goods shall at the time of delivery to the Buyer conform to the Seller’s standard specification but all other conditions and warranties, whether express or implied by statute or custom of the trade or otherwise and whether as to condition, quality, performance, merchantability, fitness for any purpose or otherwise, are expressly excluded and, subject as aforesaid, the Seller shall be under no liability whatsoever, in contract or in tort, for or in respect of any loss or damage whatsoever resulting from or arising out of the goods or supply or use thereof, whether caused by the negligence of the Seller or otherwise. The Seller shall be under no liability in respect of the warranty given above unless the Buyer allows the Seller reasonable opportunity of inspecting the goods where practicable. A consumers statutory rights are not affected.

END OF LABEL TEXT

DIRECTIONS FOR USE

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.

Under multiple cropping environments apply a maximum of 10 applications of SRUZIT per year. And in ornamentals, tomatoes, cucumbers, apply SPRUZIT at concentration of 1.0 L/ha in 100 L/ha water, adjusting to crop height as below. In ornamentals apply a higher concentration of 1.5 L/ha in 100 L water per ha for glasshouse whitefly, and 2.0 L in 100 L water per ha for scale insects and mealy bugs.

<table>
<thead>
<tr>
<th>Crop (permanent protection with full enclosure)</th>
<th>Pest</th>
<th>Crop height</th>
<th>Max. individual dose (l/ha)</th>
<th>Max water volume (l/ha)</th>
<th>Max. number of Applications per crop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ornementals</td>
<td>Aphids, leaf hoppers</td>
<td>upto 50cm</td>
<td>6.0</td>
<td>600</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 to 125cm</td>
<td>9.0</td>
<td>900</td>
<td></td>
</tr>
<tr>
<td>Plant Category</td>
<td>Disease/Insect Stage</td>
<td>Protection</td>
<td>Coverage</td>
<td>Protection Rate</td>
<td>Injury Rate</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------</td>
<td>----------------------</td>
<td>------------</td>
<td>----------</td>
<td>----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>thrips (except <em>Frankliniella occidentalis</em>), beetles, weevils (except <em>Otiorhynchus</em> spec.), sawflies, spider mites, caterpillar (except leaf rollers),</td>
<td>over 125cm</td>
<td></td>
<td>12.0</td>
<td>1200</td>
<td></td>
</tr>
<tr>
<td>Glasshouse whiteflies</td>
<td>upto 50cm</td>
<td></td>
<td>9.0</td>
<td>600</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>50 to 125cm</td>
<td></td>
<td>13.5</td>
<td>900</td>
<td></td>
</tr>
<tr>
<td></td>
<td>over 125cm</td>
<td></td>
<td>18.0</td>
<td>1200</td>
<td></td>
</tr>
<tr>
<td>Scale insects and mealybugs</td>
<td>upto 50cm</td>
<td></td>
<td>12.0</td>
<td>600</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>50 to 125cm</td>
<td></td>
<td>18.0</td>
<td>900</td>
<td></td>
</tr>
<tr>
<td></td>
<td>over 125cm</td>
<td></td>
<td>24.0</td>
<td>1200</td>
<td></td>
</tr>
<tr>
<td>Tomatoes, cucumbers (permanent protection with full enclosure)</td>
<td>Aphids, two spotted spider mite</td>
<td></td>
<td>6.0</td>
<td>600</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>upto 50cm</td>
<td></td>
<td>9.0</td>
<td>900</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50 to 125cm</td>
<td></td>
<td>12.0</td>
<td>1200</td>
<td></td>
</tr>
<tr>
<td>Cabbage <em>(protected)</em> Up to and including 6 leaf Stage</td>
<td>Aphids caterpillar (except leafrollers), beetles</td>
<td></td>
<td>6.0</td>
<td>600</td>
<td>4</td>
</tr>
<tr>
<td>Cabbage*, Kohlrabi (outdoor)</td>
<td>Aphids caterpillar (except leafrollers), beetles</td>
<td></td>
<td>6.0</td>
<td>600</td>
<td>2</td>
</tr>
<tr>
<td>Lettuce* (protected) Up to and including 6 leaf Stage</td>
<td>Aphids (except lettuce-currant aphid) caterpillars (except leafrollers)</td>
<td></td>
<td>6.0</td>
<td>600</td>
<td>4</td>
</tr>
<tr>
<td>Plant Type</td>
<td>Pests and Insects</td>
<td>Level</td>
<td>Population Size</td>
<td>Intensity</td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
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<td>-----------------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>Lettuce * (outdoor)</td>
<td>Aphids (except lettuce-currant aphid) caterpillars (except leaf rollers)</td>
<td>6.0</td>
<td>600</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Lettuce * (protected) (up to and including head beginning to form)</td>
<td>Aphids (except lettuce-currant aphid) caterpillars (except leaf rollers)</td>
<td>6.0</td>
<td>600</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Fresh herbs (protected) Angelica, balm, basil, bay, caraway leaves, celery leaves, chives, coriander leaves, dill leaves, edible flowers, fennel leaves, herbs, hyssop, lovage leaves, marjoram, mint, oregano, parsley, rosemary, sage, salad burnet, savory, sweet cicely, tarragon</td>
<td>Aphids, thrips (except Frankliniella occidentalis), leaf hoppers, whiteflies, beetles, sawflies, leaf eating caterpillars</td>
<td>6.0</td>
<td>600</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Fresh herbs (outdoor) Angelica, balm, basil, bay, caraway leaves, celery leaves, chives, coriander leaves, dill leaves, edible flowers, fennel leaves, herbs, hyssop, lovage leaves, marjoram, mint, oregano, parsley, rosemary, sage, salad burnet, savory, sweet cicely, tarragon</td>
<td>Aphids (except lettuce-currant aphid)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spinach (outdoor)</td>
<td>Aphids caterpillar (except leaf rollers), beetles</td>
<td>6.0</td>
<td>600</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Crop Description</td>
<td>Pest(s)</td>
<td>Maximum Plant Height</td>
<td>Concentration</td>
<td>Application Rate</td>
<td>Repetition</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>--------------------------</td>
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<td>------------</td>
</tr>
<tr>
<td>Leek, bulb onion, garlic, shallot (outdoor)</td>
<td>aphids</td>
<td>6.0</td>
<td>600</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Carrot, celeriac, horseradish, Jerusalem artichoke, parsnip, parsley root, radish, red beet, salsify, swede, turnip (outdoor)</td>
<td>aphids</td>
<td>6.0</td>
<td>600</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Beans without pods – broad bean (fresh), dwarf French bean (fresh), edible podded pea, runner beans (fresh), soya bean (fresh), vining pea’ (outdoor)</td>
<td>Aphids, beetles, weevils</td>
<td>Up to 50cm</td>
<td>6.0</td>
<td>600</td>
<td>2</td>
</tr>
<tr>
<td>Asparagus (outdoor)</td>
<td>Asparagus beetle</td>
<td>Up to 50cm</td>
<td>6.0</td>
<td>600</td>
<td>2</td>
</tr>
</tbody>
</table>

*Headed varieties only*

**Mixing and cleaning**

Half fill the sprayer with clean water before adding the required quantity of SPRUZIT. Add the remainder of the water and mix thoroughly before use. Do not mix more spray than you need and do not let unused spray stand in the sprayer. Wash out the sprayer after use.

On emptying the container, RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of container safely.

Before use ensure that all spraying equipment is clean. Add half the required volume of water and start agitation, add the required quantity of Spruzit. Fill the tank to the required volume whilst maintaining agitation. Continuous agitation must be maintained until spraying is complete.

All application equipment must be thoroughly cleaned with water prior to storage or use on another crop.

**Application**

At the first sign of pest attack, apply as a fine spray to thoroughly wet the leaves and stems of infested plants, but avoid direct application to open flowers. Ensure the lower surface of leaves is thoroughly wetted. Repeat applications at 7 day intervals may be required to maintain control. When used against mealy bugs, scale insects and thrips, applications should be repeated at 14 day intervals. Two sprays are usually sufficient for most pests but whitefly will require repeat applications to achieve effective control.

Best application timing is early in the morning or in the evening. Do not apply in direct sunshine or in hot weather conditions.
Dead insects may be seen on the plant leaves for several days before they fall off.

Some species of plants, including ferns, Ficus and Poinsettia, may be sensitive and suffer damage to foliage, particularly where more than one applications are made. It is recommended to test on small scale before treating large scale crops.

RESISTANCE

Total reliance on one pesticide will hasten the development of resistance. Pesticides of different chemical types or alternative control measures should be included in the planned programme. Alternating insecticides with different modes of action is a recognised anti-resistance strategy and SPRUZIT should always be used in conjunction with other insecticides of a different mode of action.

Glasshouse whitefly strains and species of aphids resistant to one or more groups of insecticides are widespread. Where strains resistant to products containing pyrethrin insecticides occur, SPRUZIT is unlikely to give satisfactory control.

Mode of action
Spruzit works as a contact insecticide. Due to the oil-based formulation the product controls adult, larval and some egg stages of various pests.

Material Safety Data Sheet
The material safety data sheet (MSDS) for this product is available on the Certis UK website of by calling the technical helpline number 0044 (0)845 373 0305