

Signum®



MAPP 11450

A water dispersible granule containing 26.7% w/w boscalid and 6.7% w/w pyraclostrobin. Signum is a fungicide with protectant and systemic activity for use against certain diseases in broccoli, Brussels sprout, cabbage, calabrese, cauliflower, strawberry (outdoor and protected), carrot, lettuce (outdoor and protected), field beans, combining peas, vining peas, potatoes, blackcurrants, redcurrants and whitecurrants.

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.

SAFETY PRECAUTIONS

Operator protection

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate or handling contaminated surfaces.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when applying by hand held equipment.

However, engineering controls may replace personal protective equipment if a COSHH assessment shows that they provide an equal or higher standard of protection.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

WASH HANDS before meals and after work.

IF SWALLOWED, seek medical advice immediately and show this container and label.

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.

To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies in line with LERAP requirements.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 metres of the top of the bank of a static or flowing water body, unless a Local Environmental Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1 metre from the top of a ditch which is dry at the time of application.

Aim spray away from water.

DO NOT ALLOW DIRECT SPRAY from hand-held sprayers to fall within 1m of the top of the bank of a static or flowing waterbody.

DO NOT ALLOW DIRECT SPRAY from broadcast air-assisted sprayers to fall within 20m of the top of the bank of a static or flowing waterbody, unless a Local Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 5 m of the top of a ditch which is dry at the time of application.

This product qualifies for inclusion within the Local Environment Risk Assessment for Pesticides (LERAP) scheme.

Before each spraying operation from a horizontal boom sprayer or broadcast air-assisted sprayer, either a LERAP must be carried out in accordance with CRD's published guidance or the statutory buffer zone must be maintained.

The results of the LERAP must be recorded and kept available for inspection for three years.

DO NOT APPLY MORE than 6 kg/ha Signum to the same area of land per annum.

Storage and disposal

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

KEEP OUT OF REACH OF CHILDREN.

STORE IN ORIGINAL CONTAINER tightly closed, in a safe place.

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.

Store in a suitable pesticide store. Keep dry and protect from frost.

This label is compliant with the CPA Voluntary Initiative Guidance



® = Registered trademark of BASF

81158188 GB 2121



2.5 kg

Supplied by: BASF plc, 4th and 5th Floors, 2 Stockport Exchange, Railway Road, Stockport SK1 3GG,
Telephone: 0161 475 3000

Emergency Information (24 hours freephone): 0049 180 227 3112
Technical Enquiries: 0845 602 2553 (office hours)

Signum®

A water dispersible granule containing 26.7% w/w boscalid and 6.7% w/w pyraclostrobin.

Warning

Harmful if swallowed.

Very toxic to aquatic life with long lasting effects.

Wash with plenty of water and soap thoroughly after handling.

Do not eat, drink or smoke when using this product.

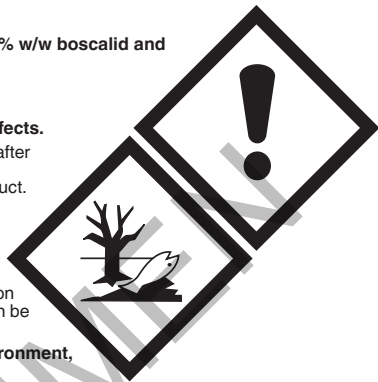
IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.

Rinse mouth.

Collect spillage.

Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

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



IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL FUNGICIDE, as directed below:

Crops	Maximum individual dose	Maximum total dose	Latest time of application
Broccoli, Brussels sprout, cabbage, calabrese and cauliflower	1.0 kg/ha	3.0 kg/ha/crop	14 days before harvest
Strawberry (outdoor and protected)	1.8 kg/ha	3.6 kg/ha/year	3 days before harvest
Carrots	1.0 kg/ha	2.0 kg/ha/crop	14 days before harvest
Lettuce (outdoor and protected)	1.5 kg/ha	3.0 kg/ha/crop	14 days before harvest
Field beans and combining peas	1.0 kg/ha	2.0 kg/ha/crop	21 days before harvest
Potatoes	0.25 kg/ha	1.0 kg/ha/crop	3 days before harvest
Blackcurrants, redcurrants and whitecurrants (pre-harvest) (outdoor)	1.5 kg/ha	3.0 kg/ha/year	3 days before harvest
Blackcurrants, redcurrants and whitecurrants (post-harvest) (outdoor)	1.5 kg/ha	1.5 kg/ha/year	Not applicable
Vining peas	1.0 kg/ha	1.0 kg/ha/crop	14 days before harvest

Other specific restrictions:

Applications to lettuce must only be made between 1 April and 31 October.

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.

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.

Restrictions/Warnings

Processed Crops – Consult processors before use on crops destined for processing. Tests have indicated that no taints were detected in blackcurrant juice; quick frozen or canned vining peas and canned combining peas.

Applications to lettuce must only be made between 1 April and 31 October.

DO NOT APPLY MORE THAN 6 kg/ha of Signum to the same area of land per annum.

Disease control

Signum is a fungicide with protectant and systemic activity for the control of a range of diseases in broccoli, Brussels sprout, cabbage, calabrese, cauliflower, strawberry (outdoor and protected), carrot, lettuce (outdoor and protected), field beans, combining peas, vining peas, potatoes, blackcurrants, redcurrants and whitecurrants as summarised below:

	Blackcurrant, redcurrant, whitecurrant	Brussels sprout	Cabbage	Cauliflower, broccoli, calabrese	Strawberry*** (outdoor and protected)	Carrot	Potatoes	Lettuce (protected and outdoor)	Field beans (winter and spring)	Peas (combining and vining)
American gooseberry mildew – <i>Sphaerotheca mors-uvae</i>	MC*									
Blackcurrant leaf spot – <i>Drapenopeziza ribis</i>	MC*									
Grey mould – <i>Botrytis cinerea</i>	C*				C			C		
Bean rust – <i>Uromyces fabae</i>									C	
Chocolate spot – <i>Botrytis spp.</i>									MC	
White blister – <i>Albugo candida</i>		C	C*							

	Blackcurrant, redcurrant, whitecurrant	Brussels sprout	Cabbage	Cauliflower, broccoli, calabrese	Strawberry*** (outdoor and protected)	Carrot	Potatoes	Lettuce (protected and outdoor)	Field beans (winter and spring)	Peas (combining and vining)
Dark leaf spot <i>Alternaria spp.</i>			C	C						
Ringspot – <i>Mycosphaerella brassicola</i>		UC	UC	UC						
Bottom rot – <i>Rhizoctonia solani</i>								C**		
Watery soft rot – <i>Sclerotinia spp.</i>								C**		
Powdery mildew – <i>Erisiphe heraclei</i> , <i>Sphaerotheca macularis</i>					C	C				
Alternaria leaf blight – <i>Alternaria dauci</i>						MC				
Alternaria early leaf blight – <i>Alternaria solani</i>							MC			
Sclerotinia rot – <i>Sclerotinia sclerotiorum</i>						MC				
Blackspot – <i>Colletotrichum acutatum</i>					C					
Leaf and pod spot – <i>Ascochyta pisi</i>										MC

C = Control

MC = Moderate control

UC = Useful level of control

* = 'Qualified minor use' based on limited data

** = Lower and more variable levels of control may be seen on outdoor crops

*** = Reduced levels of control on protected strawberry are likely for the listed diseases

Resistance Management

GROUP

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FUNGICIDES

In order to minimise risk of resistance:

Signum contains the QoI fungicide, pyraclostrobin and the SDHI (carboxamide) fungicide, boscalid. Signum should be used in accordance with FRAC resistance management advice for QoI and carboxamide mixtures.

Avoid using consecutive applications of Signum. Apply Signum in alternation with fungicides from a different cross-resistance group with satisfactory efficacy against the targeted diseases.

In line with FRAC guidance, the number of Signum applications should be no more than half of the total number of fungicide applications per season. Use no more than a maximum of three applications of Signum per crop in brassicas; no more than three applications per year in blackcurrants, redcurrants and whitecurrants, no more than four applications in potatoes and no more than two applications per crop in other crops.

Crop Specific Information

Brassicas (broccoli, Brussels sprout, cabbage, calabrese, cauliflower)

Time of Application

Apply Signum as a protectant spray or at the first sign of disease. Repeat sprays at 3 – 4 week intervals depending on disease pressure. Three applications can be made but a minimum of 14 days must elapse between the last spray and harvest.

Rate of Application

Apply 1.0 kg/ha of Signum in a minimum of 200 litres of water per hectare. In dense crops, increase the water volume up to a maximum of 1000 litres of water per hectare to achieve adequate penetration and good coverage of the crop.

Strawberries

Time of Application

For optimum control of grey mould, apply Signum as a protectant spray from the beginning of bloom (white bud).

For the control of powdery mildew and blackspot, apply Signum as a protectant spray before the appearance of disease symptoms.

Applications should be made in sequence with other products as part of a fungicide spray programme applied during flowering at 7–10 day intervals.

Two applications can be made but a minimum of 3 days must elapse between the last spray and harvest.

Rate of Application

Apply 1.8 kg of Signum in a water volume of 450 – 2000 litres of water per hectare, ensuring good coverage of the foliage and fruitlets.

Qualified minor use recommendation

Signum may be applied at 1.8 kg per hectare in 400 litres water per hectare although efficacy at this reduced volume has not been evaluated. Therefore application at 400 litres water per hectare is at user's risk with regard to biological efficacy.

Carrots

Time of Application

Apply Signum as a protectant spray or at the first sign of disease. Repeat sprays at 7–14 day intervals depending on disease pressure. Two applications can be made but a minimum of 14 days must elapse between the last spray and harvest.

Rate of Application: 0.75 –1.0 kg/ha

For control of powdery mildew and moderate control of alternaria leaf blight, apply 0.75 kg/ha of Signum in a water volume of 200 –900 litres of water per hectare, ensuring good coverage of the foliage.

For moderate control of sclerotinia rot, increase dose rate to 1.0 kg/ha of Signum in a water volume of 200 – 900 litres of water per hectare, ensuring good coverage of the foliage.

Potatoes

Time of Application

Apply Signum after tuber initiation (BBCH 40) as a protectant spray or at the first sign of disease. Repeat sprays at 10-21 day intervals depending on disease pressure. Four applications can be made but a minimum of 3 days must elapse between the last spray and harvest.

If there is a risk of late blight, switch to an approved blight fungicide

Rate of Application 0.25 kg/ha.

For the control of early leaf blight (*Alternaria solani*) for all potato crops earlies-1st and 2nd, main and seed crops apply 0.25 kg/ha of Signum in a water volume of 200-400 litres of water per hectare, ensuring a good coverage of the foliage.

Lettuce

Time of Application

Apply Signum as a protectant spray from 1–2 weeks after planting. Apply sprays at 10–14 day intervals depending on disease pressure. Two applications can be made but a minimum of 14 days must elapse between the last spray and harvest.

Rate of Application

Apply 1.5 kg of Signum in a water volume of 200 – 900 litres of water per hectare, ensuring good coverage of the foliage.

Field Beans

Time of Application

Apply Signum as a protectant spray or at the first sign of disease. For optimum control of bean rust and moderate control of chocolate spot, apply sprays from early flower and repeat at a 3 – 4 week interval, depending on disease pressure. Two applications can be made but a minimum of 21 days must elapse between the last spray and harvest.

Rate of Application

Apply 1.0 kg/ha of Signum in a minimum volume of 200 – 300 litres of water per hectare, ensuring good coverage of the foliage.

Combining peas

Time of Application

Apply Signum as a protectant spray or at the first sign of disease. For moderate control of leaf and pod spot (*Ascochyta pisi*), apply sprays from early flower and repeat at a 2 – 3 week interval, depending on disease pressure. Two applications can be made but a minimum of 21 days must elapse between the last spray and harvest.

Rate of Application

Apply 1.0 kg/ha of Signum in a minimum volume of 200 – 400 litres of water per hectare, ensuring good coverage of the foliage.

Vining peas

Time of Application

For moderate control of leaf and pod spot (*Ascochyta pisi*), apply Signum as a protectant spray or at the first sign of disease. One application can be made and a minimum of 14 days must elapse between application and harvest. To maintain disease control a subsequent treatment with another product may be required 2 – 3 weeks later depending on disease pressure.

Rate of Application

Apply 1.0 kg/ha of Signum in a minimum volume of 200 – 400 litres of water per hectare, ensuring good coverage of the foliage.

Blackcurrants, redcurrants and whitecurrants (qualified minor use based on limited efficacy data)

Time of Application

Pre-harvest treatment

For control of grey mould (*Botrytis cinerea*), apply Signum as a protectant spray from the start of flowering.

For moderate control of American gooseberry mildew and blackcurrant leaf spot, apply Signum as a protectant spray before the appearance of disease symptoms.

Applications should be made in sequence with other products as part of a disease control programme, in which case the interval between use of Signum and subsequent fungicide treatment should be between 10 – 14 days, depending on disease pressure. Two applications of Signum can be made but a minimum of 3 days must elapse between the application of Signum and harvest.

Post-harvest-treatment

Signum may be used as post-harvest treatment to help protect against American gooseberry mildew and blackcurrant leaf spot infections, thus reducing the possibility of infection-induced premature leaf drop and reduced bush vigour, which may adversely affect crop yield in the subsequent year. Apply Signum as a protectant spray after blackcurrants, redcurrants or whitecurrants have been harvested and before leaf senescence.

Rate of Application

Apply 1.5 kg of Signum in a water volume of 200 – 1000 litres of water per hectare, ensuring good coverage of the foliage and fruit.

Mixing and Application

Mixing

Half fill the spray tank with clean water and start agitation.
Slowly add in the required amount of product.
Rinse empty containers and add rinsings to the spray tank.
Add the remainder of the water and continue agitation until spraying is complete.

Application

Apply as a FINE or MEDIUM spray, as defined by BCPC.

Compatibility

For details of compatibilities contact your distributor, local BASF representative or BASF Technical Services Hotline: 0044 845 602 2553 or visit our website at www.agricentre.co.uk.

The following does not form part of the authorised label text.

With many products there is a general risk of resistance developing to the active ingredients. For this reason a change in activity cannot be ruled out. It is generally impossible to predict with certainty how resistance may develop because there are so many crop and use connected ways of influencing this. We therefore have to exclude liability for damage or loss attributable to any such resistance that may develop. To help minimise any loss in activity the BASF recommended rate should in all events be adhered to.

Numerous, particularly regional or regionally attributable, factors can influence the activity of the product. Examples include weather and soil conditions, crop plant varieties, crop rotation, treatment times, application amounts, admixture with other products, appearance of organisms resistant to active ingredients and spraying techniques. Under particular conditions a change in activity or damage to plants cannot be ruled out. The manufacturer or supplier is therefore unable to accept any liability in such circumstances. All goods supplied by us are of high grade and we believe them to be suitable, but as we cannot exercise control over their mixing or use or the weather conditions during and after application, which may affect the performance of the material, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded and no responsibility will be accepted by us for any damage or injury whatsoever arising from their storage, handling, application or use; but nothing should be deemed to exclude or restrict any liability upon us which cannot be excluded or restricted under the provisions of the Unfair Contract Terms Act 1977 or any similar applicable law.

Section 6 of the Health and Safety at Work Act

Additional Product Safety Information

The product label provides information on a specific pesticidal use of the product; do not use otherwise, unless you have assessed any potential hazard involved, the safety measures required and that the particular use has “off-label” approval or is otherwise permitted under the Plant Protection Products Regulations.

The information on this label is based on the best available information including data from test results.

Safety Data Sheet

To access the Safety Data Sheet for this product scan the QR code or use the weblink below:



agricentre.basf.co.uk/Signum/MSDS

Alternatively, contact your supplier.

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However, engineering controls may replace personal protective equipment if a COSHH assessment shows that they provide an equal or higher standard of protection.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

WASH HANDS before meals and after work.

IF SWALLOWED, seek medical advice immediately and show this container and label.

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.

To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies in line with LERAP requirements.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 metres of the top of the bank of a static or flowing water body, unless a Local Environmental Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1 metre from the top of a ditch which is dry at the time of application.

Aim spray away from water.

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Storage and disposal

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

KEEP OUT OF REACH OF CHILDREN.

STORE IN ORIGINAL CONTAINER tightly closed, in a safe place.

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.

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