

Basamid®

MAPP 11324

PCS No. 90213

A granular formulation containing 97% w/w dazomet. A chemical sterilant for field and glasshouse soils.

5 kg e or 20 kg

Batch No.:

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

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 AND RUBBER BOOTS worn inside the trousers, when handling the product.

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

DO NOT BREATHE FUMES. When used under glass, keep greenhouse fully ventilated during the application and also during any subsequent work in the greenhouse. If necessary for personal comfort, wear a respirator.

TAKE OFF IMMEDIATELY all contaminated clothing.

WASH ANY CONTAMINATION from skin or eyes immediately.

WASH HANDS AND EXPOSED SKIN before meals and after work.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

IF YOU FEEL UNWELL, seek medical advice (show the label where possible).

Environmental protection

DO NOT CONTAMINATE SURFACE WATERS OR DITCHES with chemical or used container.

Storage and disposal

DO NOT RE-USE CONTAINER FOR ANY PURPOSE.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

KEEP OUT OF REACH OF CHILDREN.

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

EMPTY CONTAINER COMPLETELY and dispose of safely.

Keep dry and cool in a suitable pesticides store.

IMPORTANT INFORMATION

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

For use as a soil sterilant before crop planting

Situations	Maximum Individual Dose	Maximum Number of Treatments	Latest Time of Application
Soil intended for cropping.	760 kg product/hectare	One per crop	Pre-planting of crop
Soils for compost making.	70 g product/square-metre/100mm deep layer OR 30 g product/70 litres soil	One per batch	Pre-planting of crop

Other specific restrictions:

Use of this product shall be limited to one application every third year on the same area.

Crops must not be planted until the safety test, i.e. the cress test, has been carried out and germination found to be satisfactory.

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.

Risk and Safety Information
BASAMID

A granular formulation containing 97% w/w dazomet.



WARNING

HARMFUL IF SWALLOWED

CAUSES SKIN IRRITATION

MAY CAUSE ALLERGIC SKIN REACTION

CAUSES SERIOUS EYE IRRITATION

MAY CAUSE RESPIRATORY IRRITATION

VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS

Avoid breathing dust.

Do not get in eyes, on skin, or on clothing

Wear protective gloves, protective clothing, eye protection/face protection

Wear respiratory protection

Call a POISON CENTER, doctor, physician if you feel unwell

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.

MAPP 11324/ PCS No. 90213

This product is approved under the Control of Pesticide Regulations 1986 – UK ONLY

DIRECTIONS FOR USE: Refer to leaflet attached.

This label is compliant with the CPA Voluntary Initiative Guidance -UK ONLY



Marketed by:



Certis, 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

Approval Holder: Kanesho Soil Treatment SPRL/BVBA, Boulevard de la Woluwe 60, B-1200, Brussels, Belgium.

® Basamid is a registered trademark of Kanesho Soil Treatment SPRL/ BVBA

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 the product.

Basamid controls many soil pests, nematodes, fungal diseases, weeds (including couch) and weed seeds.

Restrictions/Warnings

Soil type/conditions

The soil must be of fine tilth, firm, free from clods and evenly moist to the depth of sterilisation before Basamid is applied.

Heavy clay, stony and very cloddy soils are not suitable for treatment as the intimate mix of Basamid cannot be achieved, resulting in poor sterilisation.

Under glass or tunnels on sandy silt loam and silt loam (85) classes of light soil types, medium, heavy or organic soil types, use only the highest rate of Basamid, 760 kg per hectare and pay special attention to gas release and the safety test.

Where additional organic matter is to be applied clean sterile peat should be used after completion of the sterilisation.

Basamid controls most weed seeds whether germinated or in a dormant state. Certain dormant hard coated seeds, however, can be resistant to the gas and require a period of chitting and a longer exposure in order to be affected. This is achieved by pre-soaking the soil at least seven days before treatment commences and by the use of polythene as a seal in order to build the maximum concentration of gas at the soil surface.

Soil moisture

Correct soil moisture is critical for good sterilisation. It must not be below 50% of water holding capacity nor over saturated and must be maintained in this condition prior to and during treatment, to the depth of incorporation.

A guide is the moisture level regarded as ideal for seed germination. Where the soil is too dry it should be thoroughly watered at least 7 and preferably 10-14 days before treatment commences, using up to 22 litres per square metre.

Do not use Basamid on dry soils as gas release will be adversely affected.
Do not treat soils where the water table may penetrate into the sterilised layer.

Soil temperature

In order to obtain short treatment times and maintain cropping programmes, it is recommended to treat soils when temperatures are above 7°C. The higher the soil temperature the quicker the breakdown, sterilisation and subsequent gas dispersal.

Outdoor conditions

Outdoors, Basamid should be used before winter rains make the soil too wet for cultivation - usually by early November. During the winter, heavy rainfall following treatment may leach the sterilant gas further into the soil. It is essential that the Safety Test (see below) should be carried out carefully, paying particular attention to the layer below the level of incorporation as, under these conditions, gas release may be delayed.

Outdoors, do not treat ground close to plants. Leave a 1 metre safety zone between the treated area and crops. Do not treat the ground within the branch spread of shrubs and trees.

Other restrictions/warnings

Do not treat glasshouses or tunnels which contain any living plants whether dormant or growing. Also avoid houses where there is a risk of the fumes penetrating via ducts or interconnecting walkways into areas containing live plants.

Do not apply lime or fertiliser at the same time as Basamid. The lime or fertiliser should be applied after completion of the sterilisation.

Always check by means of the cress test that all traces of gas have dispersed before sowing or planting is attempted.

Avoid recontamination of sterilised areas with unsterilised soil by planting infected stock or the "carry over" of infected soil on boots, boxes, pots or wheels of machinery.

Use of this product shall be limited to one application every third year on the same area.

Pest Control

Basamid controls many soil pests, nematodes, fungal diseases, weeds (including couch) and weed seeds. It is particularly beneficial where intensive cropping is practised, e.g. where tomatoes or lettuces are grown on the same area in consecutive years, causing a build up of parasitic soil problems. Sterilisation is carried out after harvesting one crop and before planting the next. Use of this product shall be limited to one application every third year on the same area.

Brassica club root

For brassica club root control treat immediately before planting only during the summer months when soil temperatures are high (minimum 10°C). Allow sufficient time for gas dispersal and the safety test to be carried out.

Onion white rot

Where onion white rot is a problem, Basamid is unlikely to give effective control where inoculum levels are very high, or where the crop is under stress.

Nematodes, Weeds and Soil-borne fungi

Basamid applied at 220 kg/ha in the autumn, in conjunction with crop rotation, will give control of potato cyst nematode. When used at this rate for nematode control in raspberries, Basamid will have reduced activity against *Xiphinema diversicaudatum*, a species which occurs in England, but less frequently in Scotland.

Activity against weeds and soil-borne fungi will be reduced at this rate when applied to the depth of incorporation required for adequate nematode control. Where weeds and soil-borne fungal diseases are also a problem, Basamid should be applied at 380 kg/ha. Application at this rate will also improve control of *Xiphinema diversicaudatum*, if present.

Crops

The list below is only intended to be a guide as many crops can benefit from a pre-planting treatment with Basamid. All of the following can be treated:

Crops

Fruit and Vegetables

Beans (Runner)

Brassica¹

Celery

Leeks²

Lettuce

Onions²

Potatoes

Strawberries

Raspberries

Ornamentals

Daffodils

Forestry seedlings

Hardy Nursery Stock

Lawns and Turf

Tulips

Roses

Glass

Cucumbers

Chrysanthemums

Lettuce

Tomatoes

Other Ornamentals

¹ See also Pest Control Section

² See also Pest Control Section

Soils for compost making

Basamid may be used for the sterilisation of loam intended for making composts. Either make up a heap in 10 cm layers of moist soil, using Basamid at a rate of 70 g per square metre at the base and between each layer; or thoroughly mix 30 g of Basamid in each 70 litres of moist soil. Only one treatment per batch is permitted. The heap should be sheeted over to retain the gas and subsequent treatment after the sterilisation period (12-25 days) should follow the "follow-up treatment" and "safety test" described below. As the fumes given off are very injurious to plants, do not store near growing plants or in sheds interconnecting with glasshouses.

Retained polythene mulch

Polythene used to seal soil treated with Basamid may be left in place to form a mulch into which a new crop can be planted without performing any gas release cultivations. Where this method of crop production is practised, **it is particularly important to ensure the safety test is carried out (see below)** to confirm no phytotoxic residues of MITC remain before re-planting begins, taking soil samples from the centre as well as the edge of the beds. Cutting holes in the polythene at the required spacing to obtain optimum plant populations at least 7 days before the intended planting date is recommended to encourage dispersal of

any remaining pockets of gas. Soils of heavy texture, or where heavier grade polythenes (e.g. more than 50 microns) are used may need more time for full gas dispersal to occur.

Where re-planting is planned in the early spring, Basamid should be applied the previous autumn, taking due note of additional safety test requirements when using Basamid in the autumn - see Safety Test below.

Rates of Use

Rates vary according to soil type and crops grown.

RECOMMENDATIONS	SOIL TYPE	RATE	INCORPORATION DEPTH
<p>1. OUTDOORS For use on 'lighter' soil types where the main target is control of weed seeds near the soil surface in shallow rooting vegetable crops e.g. lettuce and brassicae seedlings.</p>	<p>Sands, very light soil types, and textural classes 'sandy loam' and 'fine sandy loam' of the light soil types Soils to contain less than 5% organic matter</p>	<p>220 kg/ha 22 g/m²</p>	<p>15 cm</p>
<p>2. OUTDOORS For use on 'lighter' soil types in the autumn to control potato cyst nematode and certain nematodes in raspberries (see also Pest Control Section 2.3).</p>	<p>Sands, very light soil types, and textural classes 'sandy loam' and 'fine sandy loam' of the light soil types. Soils to contain less than 5% organic matter</p>	<p>220 kg/ha 22 g/m²</p>	<p>20-25 cm</p>
<p>3. OUTDOORS For use on 'lighter' soil types where control of weed seeds and soil borne pests and fungal diseases is required</p>	<p>Sands, very light soil types, and textural classes 'sandy loam' and 'fine sandy loam' of the light soil types. Soils to contain less than 5% organic matter</p>	<p>380 kg/ha 38 g/m²</p>	<p>20-25 cm</p>
<p>4. OUTDOORS</p>			

For use on 'heavier' soil types where control of weed seeds and soil borne pests and fungal diseases is required	'Sandy silt loam' and 'silt loam (85)' textural classes of light soil types, medium, heavy, and organic soils (excluding heavy clays and cloddy soils).	570 kg/ha 57 g/m ²	20-25 cm
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5. OUTDOORS

For use in crops where polythene seal is not removed prior to planting (see also Crops Section 3.3 Retained Polythene mulch).	Sands, very light soil types, and textural classes 'sandy loam' of the light soil types. Soils to contain less than 5% organic matter	380 kg/ha 38 g/m ²	20-25 cm
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'Sandy silt loam' and 'silt loam (85)' textural classes of light soil types, medium and heavy, (excluding organic, heavy clay and cloddy soils).	570 kg/ha 57 g/m ²	20-25 cm
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6. UNDER GLASS OR TUNNELS

For use on 'lighter' soil types where less intensive cropping is practised, and for shallow rooting crops, e.g. lettuce	Sands, very light soil types, and textural classes 'sandy loam' and 'fine sandy loam' of the light soil types. Soils to contain less than 5% organic matter.	380 kg/ha 38 g/m ²	20-25 cm
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7. UNDER GLASS OR TUNNELS

For use on most soil types where very intensive cropping is practised, and where vigorous rooting crops are regularly grown, e.g. tomatoes and cucumbers	Sands, very light, light soils, medium, heavy, organic soils (excluding heavy clay and cloddy soils).	760 kg/ha 76 g/m ²	25 cm
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Mixing/Application

Basamid should be **evenly** distributed on the soil surface either by hand or through a suitable applicator, e.g. the Horstine Farmery Basamid Granule applicator, Sisis Truspred, Sisis Lospred or MJF Basamid Incorporator.

Incorporation

It is important to obtain a **thorough mixing** of Basamid into the soil and this is achieved by rotary cultivation IMMEDIATELY after application to the depth previously stated - this will be the effective depth of sterilisation. Incorporation is best achieved using machines fitted with L-shaped tines and a high rotor speed, coupled with slow forward movement, or with 'spading' machines, e.g. the MJF Basamid Incorporator or Reusel spading machines. Recommendation 7 requires deeper incorporation which the 'spading' machines best achieve.

In areas where the rotary cultivator cannot be used, such as around supports or under pipes, the soil should be quickly forked over three or more times.

Where using a tractor powered cultivator it is preferable to make two passes up and down in quick succession to achieve a good mix.

Sealing the treated area

On contact with the moist soil, Basamid releases the sterilant gas MITC (methyl isothiocyanate) and this must be retained by immediately sealing the surface using one of three methods listed below.

THESE ARE, IN ORDER OF EFFECTIVENESS:

1. After levelling, cover the soil with polythene sheeting held in close contact with the treated soil by flooding the surface of the polythene with water. The use of polythene sheeting is recommended where optimum effectiveness is required, particularly if weed control is a major objective.
2. Levelling followed by flooding with water to 'puddle' the soil surface. To retain the gas during dry conditions, further applications of water may be necessary during the first seven days in order to prevent surface cracking.
3. Heavy rolling to compact the soil surface. This method is **only suitable for outdoor sterilisation in the autumn** when followed by adequate rainfall to maintain a good seal.

Follow-up treatment

Retained polythene mulch: When used later as a mulch, the polythene used to seal the treated area is not removed, and gas release cultivations are not carried out. In this situation, a period of at least 30 days in warm soils (10°C and above) or 50 days in cold soils should elapse before the safety test is carried out (see 'Safety test' below).

For all other recommendations: The following procedure should be carried out: After a period of 14 days in warm soils (10°C and above) or 28 days in cold soils, the seal should be removed, and under glass or polythene tunnels, doors and ventilators opened. The soil should be lightly cultivated to allow any traces of the gas to disperse. Take particular care to **avoid disturbing any unsterilised soil beneath the treated zone**, otherwise recontamination will

occur. Allow for the fact that implements will tend to sink into the previously cultivated ground. After a further 14 days in warm soils or 28 days in cold soils, the safety test should be carried out, as below.

Safety test

Half fill six jam jars with soil from the treated area taken at random from 15 cm below the surface. For larger areas more samples are required. A minimum of six per 250 m² is recommended.

Organic soils and soils which become excessively wet after treatment tend to retain MITC longer. This also applies where a late autumn treatment is carried out in preparation for spring planting on all soil types. In these conditions, additional samples should be taken from 25 cm below the surface. Twelve samples per 250m² are recommended.

As a comparison include a jar half filled with untreated soil from an adjacent area. Sow cress seed on to the soil surface, ensuring sufficient moisture is present for germination to take place, thoroughly seal the jars and leave for 48 hours in a warm room when the cress should germinate normally. If there is any delay or growth check, wait for another 7 days and repeat the cress test until germination is satisfactory. Re-cultivation will help to encourage dispersal of any remaining sterilising gas in the soil (this cannot be done where polythene seal is retained - see Specific Recommendations, Section 2.4). Sowing or planting of the crop may follow immediately the safety test is clear.

Trademark acknowledgements

Basamid® is a registered trademark of Kanesho Soil Treatment SPRL/ BVBA

The following does not form part of the product label under the Control of Pesticides Regulations 1986 – UK ONLY

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 Certis 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 (UK ONLY)

Additional Product Safety Information

(This section does not form part of the product label under the Control of Pesticide Regulations 1986).

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 particular use has "off-label" approval or is otherwise permitted under the Control of Pesticide Regulations. The information on this label is based on the best available information including data from test results.

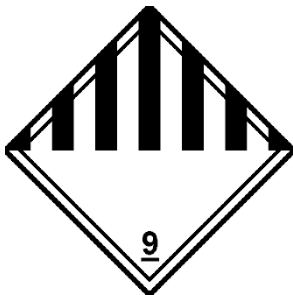
(Add Safety Data Sheet)

CASE LABEL TEXT 20 kg

BASAMID

UN3077

Environmentally hazardous substance, solid, n.o.s. (contains DAZOMET)



DEAD FISH & TREE SYMBOL

20 kg

CASE LABEL TEXT 5 kg

BASAMID



4 x 5 kg

0811TEXT