

Azamet[®] GRANULAR

A soil fumigant for use in glasshouses, bulk soil and fields by commercial growers to control weeds, nematodes, soil borne fungus diseases, and soil dwelling insects.



Active Ingredient: 970g/kg dazomet
Chemical Group: Benzene sulphamide
Formulation: Micro granule
Pack Size: 20 KG

Azamet[®] Granular – for reliable soil fumigation:

- ✓ Do-it-yourself soil fumigant.
- ✓ Controls a wide range of soil pests, weeds and fungi.
- ✓ No long-term toxic effects.
- ✓ Suitable for application to seed beds for a range of crops.
- ✓ Easy application.

About Azamet[®] GRANULAR

Azamet[®] Granular is a general purpose soil fumigant which is suitable for preparing seed beds to grow vegetables (e.g. for the prevention of clubroot in brassicas), ornamentals, forest tree seeds, or as a soil disinfectant to be used before planting out tomatoes, brassicas, lettuces, strawberries, cut flowers, or before replanting fruit trees or sowing areas of turf such as golf greens. It can also be used to disinfect bulk soil and in glasshouses.

Azamet[®] Granular can be applied by hand (using appropriate gloves such as nitrile gloves) or by suitable applicators. Gas release occurs several hours after incorporation and contact with moisture. Through fumigant action, Azamet[®] Granular controls nematodes, soil inhabiting insects, soil fungi, and many germinating weeds. Azamet[®] Granular provides moderate control of Oxalis spp. Azamet[®] Granular has no long-term toxic effect and planting may resume three to four weeks after treatment. Following the gas release, the soil can be checked for suitability for planting by conducting a germination test (cress test).

DIRECTIONS FOR USE:

Restrictions – Do not apply when soil temperatures are high (>32°C) or below 7°C. Pest control may be affected under these conditions. Azamet® Granular is toxic to all growing plants. Do not apply within 1 metre of plants or of the drip lines of trees and large shrubs. If slopes are treated, ensure that the chemical is not washed down to any growing plants. Vapour from treated soil in greenhouses may injure growing plants. Store Azamet® Granular in a dry, cool place.

SOIL:

The soil to be treated should be well prepared and be:

- 1) In a seed bed condition with a finely structured surface;
- 2) Completely free of undecomposed roots and plant matter;
- 3) In a moist state (field capacity) at least 7 days prior to treatment (watering is critical when the soil is low in moisture content);
- 4) The soil should not be saturated at the time of incorporation;
- 5) Optimum soil temperatures are between 10° and 32°C.

APPLICATION RATES:

The rates are based on:

- 1) **Glasshouse and Outdoors** application to 20-23cm in soil depth. For the control of free-living nematodes, most root disease causing fungi, soil insects and insect larvae, weeds and weed seeds:
 - On light soils: 400-440 kg/ha (400g / 10 square metres)
 - On loamy soils and soil rich in organic matter: 500-550 kg/ha (500g / 10 square metres)

For the control of cyst forming nematodes (*Heterodera* spp.) and *Verticillium albo atrum* and *Fusarium oxysporum* var. *cubense* infested soils:

- On light soils: 550 kg/ha
- On loamy soils and soil rich in organic matter: 660 kg/ha

Soils infested with wilt disease agents (*Verticillium albo atrum*, *Fusarium oxysporum*) should be fumigated to a depth of 30cm. If weed control is predominantly required then Azamet® Granular should be incorporated 10-15cm deep. Then a rate of 280 kg/ha (28g / 10 square metres) is sufficient, provided that annual weeds are to be controlled and perennial weeds and rhizomes are not present. The area treated can be irrigated with sprinklers to improve the effectiveness in some soils to prevent the soil surface from drying out.

- 2) **Bulk soils for nursery use:** Azamet® Granular can be used to treat large or small quantities of bulk soils. With large quantities, Azamet® Granular should be spread at 60g / square metre over every 25cm thick layer of soil as the heap is made up, and then thoroughly incorporated into this layer. This should be repeated every 25cm until the heap is completed, and then cover with polythene and leave for 3 weeks. Alternatively, use 200g per cubic metre of soil – i.e. 0.2 g/litre (cubic decimetre). For small quantities, Azamet® Granular can be incorporated and mixed by adding the required amount of granules to the soil and mixing with a soil shredder, placing the soil in polythene sacks, sealing and leaving for at least 3 weeks away from house and plant life before opening. Azamet® Granular can also be incorporated into the soil using a spade or hoe. However, the efficacy decreases when the fumigant is not mixed thoroughly with the soil. Higher rates should therefore be used to compensate for poorer soil incorporation when a spade or hoe is used.

DISTRIBUTION AND INCORPORATION:

Azamet® Granular must be evenly distributed on the soil surface. This can be done by hand with appropriate nitrile gloves and protective clothing, or by a fertiliser spreader. Immediately after spreading, Azamet® Granular must be thoroughly worked into the upper 15-23cm of the soil. Best results are achieved when a rotary cultivator with L-shaped tines is used. The rotor speed should be high and the tractor should be driven in a low gear.

With both methods, the soil must be at field capacity at the time of treatment for adequate activity. If soil is dry before treatment, wet with 5-10 litres of water per square metre seven days before treatment.

SEALING OF THE SOIL SURFACE:

To prevent any toxic gases from escaping from the soil, the surface must be sealed.

- 1) Polythene sheets provide the most efficient means of sealing.
- 2) Rolling: Use a heavy flat roller. The seal formed must be maintained by rainfall or irrigation.
- 3) Water: Sufficient water must be applied to compact the soil and form a surface crust.

It is critical that the soil surface be maintained in a moist condition until gas release is complete and the granules have completely disappeared.

AERATION OF THE SOIL:

This can be done by a rotovator, a disc plough or by hand tools (double digging). The soil should be worked no further than depth of incorporation of Azamet Granular. If temperatures are cold (below 10°C) the soil should not be worked for at least 3 weeks. With moderate temperatures, open no earlier than 10 days. Best results can be expected when the soil surface is kept sealed for several months and aeration is delayed until the ground is required for planting.

Note: Only clean and disinfected tools should be used. Disinfect tools and machines by washing with a formaldehyde solution. Also wash boots before entering fumigated soil.

PLANTING:

All traces of toxic gases must have disappeared from the soil before sowing or planting if possible. With soil temperatures of 10°C, 3-6 weeks are necessary. With soil temperatures above 20°C, 14-21 days are often sufficient for the gases to disappear after aeration. The suitability of the soil for planting can be confirmed with the following germination test (Cress test):

- 1) Take soil samples from both treated and untreated soils at a depth of 10-15cm, by scraping the surface soil away and quickly filling a jam jar with a screw top to the three-quarters mark and immediately closing the jar.
- 2) Place moist cotton wool pads, with cress (lettuce) seeds in the jars, opening them for as short a time as possible.
- 3) Place the jars in a room at about 22°C.
- 4) Check 48 hours later whether seeds have germinated. If the seeds have germinated in the jar with the untreated soil, but not in the jar with the treated soil, the toxic gases have not yet escaped from the treated soil and the soil should be worked again to aerate it.

Note: Transplants to be planted on fumigated soil should be raised on clean, disinfected soil. Otherwise, there is a danger of carrying nematodes disease agents into the fumigated soil, which can rapidly spread and nullify the effects of fumigation.

FERTILISER:

Chemical sterilisation releases nitrogen and the fertiliser programme should be adjusted accordingly.



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