



A granule containing 6.75% w/w dichlobenil

(MAPP 12690)

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

MODE OF ACTION CLASSIFICATION - Weed Resistance Management and Weed Resistance Avoidance
Dichlobenil, the active ingredient of EMBARGO G, is a Group L herbicide (HRAC, 1996 Classification) Dichlobenil is a nitrile herbicide and works by inhibiting cell wall (cellulose) biosynthesis.

Barclay Chemicals Manufacturing Ltd., Damastown Way,
Damastown Industrial Park, Mulhuddart, Dublin 15, Ireland.
Freephone: 0808 1000200 Freefax: 0800 3281607

		HARMFUL IN CONTACT WITH SKIN. TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT
IRRITANT	DANGEROUS FOR THE ENVIRONMENT	KEEP OUT OF THE REACH OF CHILDREN WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/ SAFETY DATA SHEET IF SWALLOWED, DO NOT INDUCE VOMITING; SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL

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

SAFETY PRECAUTIONS

Operator protection

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the product or when applying by hand or hand-operated application equipment.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) during application by vehicle drawn/mounted equipment.

WHEN USING DO NOT EAT, DRINK OR SMOKE

WASH HANDS before eating and drinking and after work.

Environmental protection

*HARMFUL TO FISH OR OTHER AQUATIC LIFE. Do not contaminate surface waters or ditches with chemical or used container.

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.

COMPLIANCE WITH THE FOLLOWING CONDITIONS OF USE AND ALL SAFETY PRECAUTIONS MARKED* IS A LEGAL REQUIREMENT FOR USE ONLY AS AN AGRICULTURAL, HORTICULTURAL HERBICIDE	
Crops or situations	Maximum total dose
Amenity vegetation	125 kg product/hectare/year
Natural surfaces not intended to bear vegetation, permeable surfaces overlying soil and hard surfaces	225 kg product/hectare/year
Apple, pear, blackcurrant, redcurrant, gooseberry, raspberry, loganberry, blackberry.	145 kg product/hectare/year
Potato (dumps for destruction).	30g product/square metre/year

READ ALL OTHER SAFETY PRECAUTIONS AND DIRECTIONS FOR USE BEFORE USE

GENERAL INFORMATION - APPLICATIONS TO SOIL

EMBARGO G is a broad-spectrum, residual herbicide, applied as granules, for both the pre-emergence control of germinating and the post-emergence control of seedling and established, annual and perennial grass and broad-leaved weeds.

The number of different weed species controlled is increased by increasing the applied dose of EMBARGO G granules - see Weed Susceptibility Table. Dose increases also increase the duration of residual activity, but care must be taken not to exceed the maximum dose recommended for each crop.

In Amenity vegetation, dose rates can be varied to give either total weed control of non-cropped land such as paths, drives, around building, under fence-lines, or selective weed control around roses, ornamental shrubs and trees.

In Horticulture, EMBARGO G herbicide can be used at rates up to 145 kg/ha on certain top, bush and cane fruit, as specified below.

Additionally EMBARGO G granules can be used on potato dumps in order to eliminate sources of active blight inoculum in early season.

In general, best results are obtained when the granules are applied to a moist soil under cool conditions, especially when rainfall occurs shortly after application.

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.

WARNINGS

Application

All crops, including ornamental shrubs and trees, must be established for at least two years before treating surrounding soil.

Careful application is essential for the achievement of best results:

- Apply EVENLY over the areas to be treated, using a hand applicator or suitable mechanical spreader.

- Local overdosing should be avoided, especially around the base of ("crop") plants.

- Take care to ensure EMBARGO G granules do not blow or fall onto areas other than those intended for treatment.

- Where mulching is used - apply BEFORE mulching.

Soil Type

Do not use on fen peat or moss soils. Variations in mineral soil type, however, have only a marginal effect on the activity of EMBARGO G which therefore gives good results on most soils. As a guide, the lower dose range should be reserved for lighter soils.

A residual herbicide for:-

- selective, pre- and post-emergence control of a wide range of annual and perennial grass and broad-leaved weeds in Amenity vegetation - roses, ornamental shrubs and trees -, and in soft fruit and established apples and pears.
- total weed control on land not intended to bear vegetation.
- the control of volunteer potatoes on potato dumps to remove a source of potato blight inoculum.

Important Exclusions/Notes

1. DO NOT APPLY IN OR AROUND GLASSHOUSES OR NEAR HOPS.
2. DO NOT apply to areas underplanted with bulbs, annuals or herbaceous stock.
3. DO NOT apply to areas less than 18 months before replanting or sowing. If the treated area is cultivated within this period, the activity of the herbicide can be prolonged which may result in a check to the growth of sown or re-planted crops.
4. EMBARGO G must NOT be used as a pre-planting treatment.
5. DO NOT apply when crop foliage is wet as this may cause granules to lodge on leaves or in leaf axils and cause damage.
6. DO NOT apply to frozen, snow-covered or water-logged soils.
7. DO NOT disturb treated soil by hoeing, etc. or weed control may be adversely affected.
8. Under certain circumstances chlorosis of leaf margins of crops may occur, but this has been shown not to affect yield or growth.

Storage

EMBARGO G herbicide is highly phytotoxic to buds and germinating seeds; the product should be stored WELL AWAY from corns, bulbs, tubers and seeds for planting. Store the product under cool, dry conditions.

WEEDS CONTROLLED

Timing

In general, application should be made by the end of winter and before the onset of spring growth - unless individual

"Crop Recommendations" dictate otherwise (see pages 2 and 3). Weed competition can drastically reduce crop growth and yield. Where moderate to severe weed infestations are apparent in the autumn, a late Autumn (November) application is recommended.

Clearly, a late autumn application will not persist into the year following as long as a normal Winter/Spring application.

Alternatively, a split application may be made by applying two-thirds of the recommended dose in the autumn, repeated in the late winter/early spring.

Residual Activity

EMBARGO G, when used as directed, persists for 3 to 6 months at doses for selective weed control and up to 12 months at the maximum dose recommended for total weed control (225 kg/ha). Warm conditions reduce the length of residual activity; for example, best results may not be obtained if applications are made later in the spring than recommended.

Crop Recommendations

AMENITY VEGETATION: ROSES, ORNAMENTAL SHRUBS AND TREES

Dose: Apply 80 - 125 kg/ha (8 - 12.5 g/m²) depending on weeds to be controlled.

Timing: Outdoor roses - apply well before any signs of bud movement, usually in early February. Ornamental Shrubs and Trees - apply before spring growth starts, usually in February or early March.

All species, including outdoors roses must be established for a minimum of two years in their final planting position prior to treatment; the following species may be treated:

Ash (Fraxinus) Azalea Bamboo Beech (Fagus) Berberis Birch (Betula) Buddleia Cherry (Prunus) Crab Apple (Malus) Cotoneaster Currant (Ribes) Deutzia Dogwood (Cornus) Escallonia	Euonymus Forsythia Hawthorn (Crataegus) Heaths (Erica) Hibiscus Holly (Ilex aquifolium) Hydrangea Ilex aquifolium Japanese Laurel (Aucuba) Laburnum Lilac (Syringa) Oak (Quercus) Pear (Pyrus) Pine (Pinus)	Philadelphus Privet (Ligustrum) Rhododendron Rosa Rowan (Sorbus) Spiraea Spruce (Picea)* Sycamore (Acer pseudo-platanus) Tamarix Viburnum Weigela Willow (Salix)
---	--	---

*Application should not be made to Norway Spruce when grown for Christmas tree production.

Do not treat:

Elder (Sambucus spp.) Gleditsia spp. Ilex crenata Ilex rotunda Ilex vomitoria	Larch (Larix spp.) Rhamnus frangula Senecio greyi Snowberry (Symphoricarpos spp.)
---	--

With other species:

Insufficient information is available on crop safety to enable a recommendation to be made. You may wish to test crop safety by treating a limited number of specimens in the first instance.

Do not apply in or near glasshouses.

Do not apply to areas under-planted with bulbs, herbaceous stock or annuals.

BUSH, CANE AND TOP FRUIT**Blackcurrants, Gooseberries, Redcurrants.**

Dose: 80 to 145 kg/treated ha, depending on weed spectrum, as a band or overall treatment.
 Timing: Apply from late December to March or early April and before the leaf canopy prevents the granules from reaching the bush centres.
 Avoid application when bushes are in flower.

Do not apply to bushes before the first year of cropping or within 2 years of planting (whichever is the later).

Do not apply to blackcurrants which have been cut back to soil level until at least one year after cutting back.

Blackberries, Loganberries, Raspberries

Dose: 80 to 145 kg/treated ha, depending on weed spectrum, as a band or overall treatment.
 Timing: Apply early, well before any sign of sucker emergence or bud movement.
 Application must be made only to dormant fruiting crops established for a minimum of two years.
 The highest dose (145 kg/ha) should be applied only when cane growth is satisfactory. A slight check of cane growth can occur, especially in cane shy varieties e.g. Malling Jewel; if cane growth depression occurs, cane development usually recovers to normal by the end of the season.

Apples, Pears

Dose: 56 to 145 kg/treated ha, depending on weed spectrum, as a band or overall treatment.
 Timing: From late December to mid-March.
 Trees must have been established for a minimum of two years in their final planting position before treatment.

When the low rate of 56kg/ha is used, the use of a hormone or hormone-aminotriazole application should be made to a complete herbicide programme.

Do not treat stone fruit.

POTATO DUMPS

New potato foliage growing from infected tubers in old clamps and dumps is often the source of late blight inoculum in the new season. Blight spores from infected foliage are carried by the wind to infect new season crops.

Dose: 30 g/m² (300 kg/ha)

Timing: Before the emergence of any potato growth.

Level the dump and apply EMBARGO G granules evenly. Best results are obtained by covering the dump with a little soil prior to application.

TOTAL WEED CONTROL ON LAND NOT INTENDED TO BEAR VEGETATION

For total control of all but a few weed species (see Table) on land not intended to bear vegetation such as paths, driveways, around buildings, under fence-lines and wall footings, etc.

The long-term activity in the top 5 cm of treated soil gives activity against established weeds and residual activity against emerging weed seedlings.

Dose: Apply 125-225 kg/ha (12.5-22.5 g/m²) - lower doses may be effective if only the more susceptible species are present (as plants or seeds).

Timing: Apply in February to March, before the end of spring to obtain season-long weed control.

Weed Susceptibility

In the following Weed Susceptibility Table, weeds are listed according to their relative susceptibility to increasing rates of EMBARGO G. Clearly a dose of 175 kg/ha will control not only those weeds listed under this dose but also all weeds listed at lower doses (to the left in the Table).

Increasing dose (from 56 kg/ha) therefore broadens the spectrum of weeds controlled and lengthens the duration of control of weeds controlled at lower doses. However care must be taken not to exceed the maximum dose allowed/recommended for each crop type/species - please also refer to the individual crop sections on this label.

56 kg/ha (5.6 g/m²) - When applied in December or January, this dose controls germinating annual and perennial weeds, and light to moderate infestations of established annual species listed in the Table. This dose will be effective only in the absence of established perennial weeds, and in normal seasons is likely to maintain adequate weed control until mid-season only - when further treatment (with a different herbicide) may be required.

170 kg/ha (17 g/m²) - The weeds listed are unlikely to be controlled at lower doses, but are progressively suppressed as doses are increased.

For full details of weeds controlled, please refer to the Weed Susceptibility Table.

Weed Susceptibility Table (see also Previous Notes)

Dose: 56 kg/ha (5.6 g/m ²) Susceptible Weeds *	Dose: 100 kg/ha (10 g/m ²) + Susceptible Weeds	Dose: 125 kg/ha (12.5 g/m ²) + Susceptible Weeds **	Dose: 170 kg/ha (17 g/m ²) + Moderately Susceptible Weeds
Established annual weeds: Annual Meadow-grass Black-grass Charlock Common Chickweed Common Mouse-ear Common Orache Common Poppy Corn Marigold Corn Spurrey Fat-hen Groundsel Hedge Mustard Scentless Mayweed Small Nettle Sow-thistle Stinking Chamomile Wild-oat	Established perennial weeds: Colt's-foot Common Dandelion Common Mallow Creeping Soft-grass Dock Field Horsetail Plantain Smooth Meadow-grass Thistle Willowherb	Established annual weeds: Annual Mercury Back-bindweed Cleavers Knotgrass Redshank Shepherd's-purse Speedwell + Established perennial weeds: Bracken Cock's-foot Common Couch Common Nettle Creeping Yellow-cress Ground-elder Hoary Cress Perennial Rye-grass Rough Meadow-grass	Established perennial weeds: Black Medick Buttercup Cinquefoil Clover Common Club-Rush Common Reed Field Bindweed Hedge Bindweed Hemp-agrimony Lucerne Mugwort Perennial Wall-rocket Sedge Silverweed Spike-rush Sweet Vernal-grass Toad Rush
* Greater duration of control of these weeds can be achieved by increasing the dose to 80 kg/ha (8 g/m ²). At this higher dose certain established perennial weeds may also be suppressed.		** Improved control of severe infestations and greater persistence can be achieved using a dose of 145 kg/ha (14.5 g/m ²)	Dose: 225 kg/ha (22.5 g/m ²). This dose provides improved control of severe infestations and gives greater persistence. It will control all susceptible weeds for up to 12 months and is recommended for total weed control on land not intended to bear vegetation e.g. paths, driveways, wall footings, fence-lines etc.
The established perennial weeds : Bramble, Crane's-bill, Hogweed, Hop, Nightshade and Small Scabious are all resistant to EMBARGO G even when applied at 225 kg/ha (22.5 g/m ²).			

COMPANY ADVISORY INFORMATION

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

Safety Data Sheet

This is available from your local distributor or direct from:

Barclay Chemicals Manufacturing Ltd., Damastown Way,

Damastown Industrial Park, Mulhuddart, Dublin 15, Ireland.

Freephone: 0808 1000200

Freefax: 0800 3281607