DEVRINOL®

HERBICIDE

MAPP 19358

A suspension concentrate (SC) formulation 450 g/litre of napropamide (40.9% w/w) for the control of annual grass and broad-leaved weeds in certain brassicas (broccoli, Brussels sprouts, cabbage, calabrese, cauliflower and kale), strawberry, blackcurrant and redcurrant, gooseberry, raspberry and winter oilseed rape.

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

Warning



Very toxic to aquatic life with long lasting effects.
Collect spillage.
Dispose of contents/container to a licensed hazardous-waste contractor or collection site except for clean containers which may be disposed of as non-hazardous waste.
Contains 1,2-benzisothiazolin-3-one. May produce an allergic reaction.

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

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5 LITRES

UPL

GB 311043/01-0722

A5.0 DEVRINOL UK 140120 NoA 0114-20

IMPORTANT INFORMATION

FOR USE ONLY AS A PROFESSIONAL HERBICIDE

Crops/situations	Maximum individual dose (l product/ha)	Maximum number of treatments:	Latest time of application
Broccoli/calabrese, Brussels sprout, cabbage, cauliflower, kale	2.8	1 per crop	Before transplanting or drilling
Blackcurrant and redcurrant, gooseberry, raspberry, strawberry	7.0	1 per year	Before the end of February
Oilseed rape (winter)	2.5	1 per crop	Pre-emergence of the crop

OTHER SPECIFIC RESTRICTIONS

1. Applications to strawberries must only be made to plants where the mature foliage has previously been removed (topped).
2. Application to strawberries, established blackcurrants, redcurrant, gooseberries and raspberries must be made after 1st November and before the end of February.

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

SAFETY PRECAUTIONS

OPERATOR PROTECTION

Wash hands and exposed skin before eating and drinking and after work.
When using do not eat, drink or smoke.

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.
Extreme care must be taken to avoid spray drift onto non-crop plants outside of the target area.

STORAGE AND DISPOSAL

Keep out of reach of children.
Keep away from food, drink and animal feeding stuffs.
Do not re-use container for any purpose.
Keep 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.

DIRECTIONS FOR USE

IMPORTANT: This information is authorised 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

1. Weed control may be reduced where the spray is mixed too deeply into the soil.
2. Do not treat crops adversely affected by poor soil, adverse weather or cultural conditions.
3. Avoid spray overlap, particularly on headlands.
4. Incorporation under wet conditions is not satisfactory.
5. Surface manure, straw, moss or other organic detritus may reduce weed control. Soil cultivations after spraying should be avoided.
6. DEVRINOL can be used on a wide range of soils but should not be applied to Sands (as defined by the ADAS '85 System) or to soils with more than 10% organic matter.
7. It is important to ensure that the seedbed is free from clods and weeds and is in good tilth.
8. Devrinol must not be used on protected crops.

CROP SPECIFIC INFORMATION

BRASSICAS

- DEVRINOL may be sprayed prior to transplanting broccoli, Brussels sprouts, cabbage, calabrese, cauliflower, or kale.
- Apply DEVRINOL at 2.8 litres/ha as a MEDIUM or COARSE spray in 200-400 litres water/ha.
- To maximise efficacy, DEVRINOL should be incorporated to a depth of 50 mm prior to transplanting. Incorporation MUST OCCUR within 30 minutes of application.
- DEVRINOL is not recommended for use in plant raising beds.
- Spring Planted Brassicas: Spring tine harrows (triple-K type), tandem disc harrows, power driven reciprocating harrows, the Lely Roterra and rotary cultivator with L-shaped blades are all suitable for incorporation. Make one pass with a rotary cultivator, but two passes, with the second at an angle to the first, are recommended for any other type of harrow. When non-powered harrows are used, a high forward speed of at least 8kph (5mph) is required to obtain thorough incorporation.
- A slow forward speed of 5 kph (3 mph) is recommended for the Lely Roterra and for rotary cultivators in combination with a high rotor speed.
- Summer Planted Brassicas: i.e. those usually planted during July and August, e.g. winter broccoli: Application should be made during the later stages of seedbed preparation and using a light set of harrows to blend the spray into the top 25 mm of soil. With this implement a high forward speed of at least 8 kph (5 mph) is required and two passes are recommended to obtain thorough mixing, the second pass being at an angle to the first.

Sequential Programme

DEVRINOL should be sprayed and incorporated into the soil prior to drilling or transplanting a brassica crop. Incorporation MUST OCCUR on the SAME DAY as application.

A follow up treatment of an approved formulation of an alternative product may be applied after drilling or transplanting according to the manufacturers recommended rate.

Weed Control

Susceptible (S)	Moderately Susceptible (MS)	Moderately Resistant MR)	Resistant (R)
Amaranth species Annual meadow grass Common barnyard grass Common chickweed Common purslane Mayweed species	Annual nettle Black bindweed Cleavers Common field speedwell Common groundsel Fat hen Knotgrass Shepherd's-purse	Field pennycress	Corn speedwell Common fumitory Redshank

Timing

DEVRINOL may be applied pre-drilling and incorporated in a tank mixture with approved formulations or alone as a pre-emergent spray.

STRAWBERRY, BLACKCURRANT, REDCURRANT GOOSEBERRY AND RASPBERRY

- DEVRINOL must not be used on protected crops.
- PROCESSED CROPS: Tests have proved that DEVRINOL does not taint strawberries, blackcurrants or gooseberries; nevertheless, growers should consult the processor before use.
- Applications to strawberries must only be made to plants where the mature foliage has previously been removed (topped).
- Soft fruit grown in Very Light Soils (as defined by the ADAS '85 System) should not be treated.

Established Strawberry Crops (crops that have made at least one season's growth)

- Apply DEVRINOL at 7 litres/ha as a MEDIUM or COARSE spray in 200-400 litres water/ha.
- Apply from November to the end of February after existing weeds have been removed.

Maiden Strawberry Crops

- On light soils, apply DEVRINOL at 5 litres/ha as a MEDIUM or COARSE spray in 200-400 litres water/ha.
- On medium and heavy soils, apply DEVRINOL at 7 litres/ha as a MEDIUM or COARSE spray in 200-400 litres water/ha.
- Apply from November to the end of February after planting but before weeds emerge. Any existing weeds should be removed before application.
- Runners should be planted carefully so that no roots are left exposed.
- Soil should be firmed around the roots before application. Do NOT treat runners of poor vigour or with shallow roots.
- Do NOT apply DEVRINOL to runner beds.
- DEVRINOL has been used successfully on a wide-range of strawberry varieties. However, it is recommended that only a small area should be treated in the first season due to the introduction of new varieties and changes in crop husbandry.

Blackcurrant, Redcurrant, Gooseberry and Raspberry

- Apply DEVRINOL at 7 litres/ha as a MEDIUM or COARSE spray in 200-400 litres of water.
- Apply during November to the end of February after existing weeds have been removed.
- Blackcurrant, redcurrant, raspberry and gooseberry crops should be established for at least 10 months before treatment.

Weed Control

Susceptible (S)	Moderately Susceptible (MS)	Resistant (R)
Annual meadow-grass Black-grass Common chickweed Common field-speedwell Common poppy Corn spurrey Fat-hen Field forget-me-not Groundsel Knotgrass Mayweeds Willowherbs	Cleavers Field pansy Pale persicaria Redshank Shepherd's-purse Small nettle* Sow thistles Volunteer cereals	Black nightshade Charlock Corn marigold Field pennycress Parsley-piert

* For the control of small nettle, a rate of 5 litres/ha is not recommended.

WINTER OILSEED RAPE

- Apply DEVRINOL at 2.5 litres/ha.
- Use a medium-coarse spray (as defined by BCPC) in 200-550 litres of water/ha at a spray pressure of 2-3 bar.
- DEVRINOL may be applied and incorporated into the soil before drilling the crop (incorporation MUST OCCUR within 30 minutes of application) or post-drilling, pre-emergence of the crop.
- Where volunteer cereals are a problem, an additional post emergence spray of an alternative product may be made according to the manufacturer's recommendations.
- Conventional seedbed preparation: Apply during the later stages of seedbed preparation. Use only a light set of harrows to incorporate the herbicides in the top 25 mm of soil.
- With this implement a high forward speed of at least 8 km/h (5 mph) is required and two passes are recommended, with the second at an angle to the first. Drilling may be carried out immediately or within 14 days of application. Alternatively, a drill fitted with light harrows will provide a second pass during drilling. In this case the direction of sowing should be at an angle to the first pass and should be completed within 48 hours of application.
- Minimum cultivation: May be sprayed directly onto the stubble and incorporated into the top 25 mm of soil as part of the surface cultivations. Tandem discs, spring tine harrows or similar non-powered harrows are suitable implements. Where surface cultivations have been completed before application, use only light tine harrows to incorporate the herbicides.
- In dry conditions better weed control may be achieved where the product is incorporated into the soil. Ideally the soil should be moist at application and there should be rainfall afterwards.

Weed Control

Susceptible (S)	Moderately Susceptible (MS)	Moderately Resistant MR)	Resistant (R)
Common poppy Prickly poppy	Annual meadow grass Common field speedwell Fat hen Ivy-leaf speedwell	Common Chickweed Mayweed species	Black-grass Common Fumitory Forget-me-not Pale persicaria Redshank Field pansy

WEED RESISTANCE

Strains of some annual grasses (e.g. black-grass, wild-oats, and Italian rye-grass) have developed resistance to herbicides, which may lead to poor control. A strategy for preventing and managing such resistance should be adopted. Guidelines have been produced by the Weed Resistance Action Group (WRAG) and copies are available from the AHDB, CPA, your distributor, crop adviser or product manufacturer.

Repeated use of herbicides with the same mode of action can increase the risk of strains of weeds developing resistance to these compounds, leading to poor control. In order to minimise the risk, a strategy for preventing and managing such resistance should be adopted. Use products with different modes of action and from different chemical groups in sequence or tank-mix, in conjunction with effective cropping rotation and cultivation techniques. In all cases the recommended rate of use should be adhered to. Follow WRAG guidelines.

SUCCEEDING CROPS

- Before planting any following crop, the soil should be mould-board ploughed to a depth of 20 cm.
- Do not use DEVRINOL in the same season as replanting/drilling is planned.
- No crop, other than supported uses including brassica crops (leaf, flower), root crops, fodder crops and oilseed rape, can be drilled within 7 months following application of DEVRINOL
- Maize may be grown providing a period of 9 months has elapsed since DEVRINOL was applied. Autumn sown wheat and grass or any other crop may be planted/drilled providing a period of 12 months has elapsed since DEVRINOL was applied.

MIXING
Half fill the tank with water and begin agitation. Add the required quantity of DEVRINOL to the sprayer using a filling device (e.g. induction bowl, probe etc) or otherwise by direct addition to the spray tank. Wash out container thoroughly, adding washings to the sprayer, preferably using an integrated pressure-rinsing device where available, otherwise manually rinse at least three times.

For all tank mixes, follow the procedure above except add DEVRINOL to the tank first. Continue agitation during spraying.

Wash out sprayer thoroughly after use.

Apply DEVRINOL as a MEDIUM or COARSE spray in 200- 400 litres water/ha.

Further Advice for Application through Knapsack Sprayers

Application can be made via knapsack sprayer. Recommended volumes have been provided below as a guide. Ensure product is thoroughly mixed before spraying.

At water volume 200L/ha

Knapsack sprayer capacity (litres)	Recommended rate product/ha	
	5.0 l/ha	7.0 l/ha
	Rate of product per filling	
10	250 mls	350 mls
15	375 mls	525 mls
20	500 mls	700 mls

At water volume 1000L/ha

Knapsack sprayer capacity (litres)	Recommended rate product/ha	
	5.0 l/ha	7.0 l/ha
	Rate of product per filling	
10	50 mls	70 mls
15	75 mls	105 mls
20	100 mls	140 mls

COMPATIBILITY
Please refer to the UPL Europe Limited website for further information - www.upl-ltd.com/uk.

CONDITIONS OF SUPPLY
All goods supplied by the company are of good quality and we believe them to be fit for purpose. However, as we cannot exercise control over their storage, handling, mixing or use or the weather conditions before, during or after application, which may affect the performance of the goods, 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 or re-sellers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use.
These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods. Brand names used in this label may be registered trademarks of UPL Europe Ltd, or other manufacturers in which propriety rights may exist.

EU supplier details (for Northern Ireland only):
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To access the Safety Data Sheet for DEVRINOL please use the link below or scan the code.

www.upl-ltd.com/uk/product-details/devrinol
Alternatively, contact your local supplier.

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