PDM 330 EC

An emulsifiable concentrate containing 330 g/l (32.8% w/w) pendimethalin.
A herbicide for the control of annual grass and broad-leaved weeds in a wide range of crops.

An emulsifiable concentrate containing 330 g/litre pendimethalin, isobutanol and Solvesso 200 ND.

Risk and Safety Information:
Danger:
Harmful if swallowed.
Causes serious eye irritation.
Causes skin irritation.
May be fatal if swallowed and enters airways.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

Wear protective gloves and eye/face protection.
If swallowed: immediately call a poison centre or doctor/physician.
Do not induce vomiting.
If on skin: wash with plenty of soap and water.
If in eyes: rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
Remove/take off immediately all contaminated clothing.

Contains pendimethalin. May produce an allergic reaction.

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

5 L e

UN 3082

Environmentally hazardous substance, liquid, N.O.S. (contains pendimethalin, solvent naphtha)
Marine pollutant

PCS No. 03582

SPECIMEN - 2014 to date

Supplied by:
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Authorization holder:
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Earl Road, Cheadle Hulme,
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BASF
The Chemical Company

® = Registered trademark of BASF

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

Crops	Maximum Individual Dose	Max. Number of Treatments	Latest Time of Application
Winter wheat, durum wheat, winter barley, winter rye and triticale.	4.0 litres product/ha	One per crop	Before leaf sheath erect stage (crop GS 30).
Spring barley, potatoes, combining pea and sunflower.	4.0 litres product/ha	One per crop	Pre-crop emergence.
Forage maize, grain maize	4.5 litres product/ha	One per crop	Before 4th leaf stage
Bulb onion (spring and autumn, drilled and transplanted).	4.0 litres product/ha	One per crop	Pre-crop emergence
Leek	4.0 litres product/ha	One per crop	Pre-crop emergence
Carrot and parsnip	4.0 litres product/ha	One per crop	Pre-crop emergence
Broccoli/calabrese, Brussels sprout, Cabbage, Cauliflower	4.0 litres product/ha	One per crop	Before transplanting
Blackcurrant, Gooseberry	4.0 litres product/ha	One per year	Before bud burst
Strawberry	4.0 litres product/ha	One per year	After flower initiation but before flower truss emergence
Apple, Cherry, Pear, Plum	4.0 litres product/ha	One per year	Before bud burst
Raspberry, Loganberry, Rubus Hybrid, Blackberry	4.0 litres product/ha	One per year	After harvest but before bud burst

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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 CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND FACE PROTECTION when handling the concentrate.
WEAR SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces.
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 CONCENTRATE from skin or eyes immediately.
AVOID ALL CONTACT BY MOUTH.
DO NOT BREATHE SPRAY.
WASH HANDS AND EXPOSED SKIN before meals and after work.
IF YOU FEEL UNWELL, seek medical advice immediately (show label where possible).

Environmental protection

Do not contaminate water with the product or its container.
DO NOT ALLOW DIRECT SPRAY from ground crop sprayers to fall within 5 m of the top of the bank of a static or flowing body. Direct spray away from water.

Storage and disposal

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.
KEEP OUT OF REACH OF CHILDREN.
DO NOT RE-USE CONTAINER for any purpose.
KEEP IN ORIGINAL CONTAINER, tightly closed in a safe place.
THIS MATERIAL AND ITS CONTAINER must be disposed of in a safe way.
WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely.
Keep dry and frostproof in a suitable pesticide store.
Store above 4 °C

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.
A herbicide for the control of annual grass and broad-leaved weeds in a wide range of crops.

1. Restrictions/Warnings

1.1 Efficacy
Some soil moisture must be present for PDM 330 EC to be activated. Best results will be obtained if rainfall occurs within seven days of application.
Residual control may be reduced:
- under prolonged dry conditions
- on soils with a high Kd factor
- where organic matter exceeds 6%
- where ash content is high

Do not disturb the soil after PDM 330 EC has been applied as this will result in reduced weed control.
Where cultural practices which encourage the build up of organic matter in the soil surface are practiced for a number of seasons the effectiveness of residual herbicides may be reduced. In such circumstances, periodic ploughing is recommended to disperse residues into a greater volume of soil.

1.2 Soil types
PDM 330 EC may be used on all mineral soil types.
Do not use on soils with more than 10% organic matter.
On stony or gravely soils, crop damage could occur, particularly, if heavy rain follows treatment.
Do not use on water logged soil or soils prone to water logging.

1.3 Seedbed preparation
Trash and straw should be incorporated evenly during seedbed preparation.
Seedbed must have a fine, firm tilth.
Consolidate loose or cloddy seedbeds before use.
Following pre-emergence applications, unconsolidated clods (especially if larger than 7.5 cm (3″) diameter) may reduce the level of weed control and cause seed to be inadequately covered, which could result in crop damage.

1.4 Crop safety
Extreme care must be taken to avoid spray drift onto non-crop plants outside of the target area.
Do not apply PDM 330 EC to crops suffering from stress, which may be caused for example by pests, disease, water logging, poor seedbed conditions or previous chemical treatment.
Seed should be covered with a minimum of 3.2 cm of settled soil (2.5 cm for Peas and Sunflowers, 5 cm for maize).
Shallow drilled crops should be treated post-emergence.
Do not soil incorporate.
Do not spray undersown crops.
Do not undersow crops treated with PDM 330 EC.
PDM 330 EC should not be used on protected crops, or in greenhouses.

1.5 Other Restrictions/Warnings
Before using PDM 330 EC on crops to be processed please consult your processor.
Concentrated or diluted PDM 330 EC will stain. Avoid spillage.
Staining is minimised or completely removed if skin and clothes are washed immediately.
Hose down machinery immediately after use with a spray tank cleaner.

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2. Weed Control

2.1 Cereals

2.1.1 PDM 330 EC applied alone
All weed susceptibility ratings in the table below are for applications made pre-emergence of the weeds.

CROPS	Winter Wheat, Durum Wheat, Winter Barley, Winter Rye & Triticale		Spring Barley,
PRODUCT	PDM 330 EC		PDM 330 EC
RATE (litres/ha)	4	3	4
GRASS WEED CONTROL			
Annual Meadow-grass	S	S	S
Awned Canary Grass	–	–	–
Black-grass	–	–	–
Rough Meadow-grass	MS	MS	MS
BROAD-LEAVED WEEDS			
Black-bindweed	–	–	–
Black Nightshade	–	–	–
Cleavers	–	–	–
Common Chickweed	S	S	S
Common Fumitory	MS	–	MS
Common Orache	S	MS	S
Common Poppy	S	MS	S
Corn Buttercup	–	–	–
Corn Marigold	S	S	S
Fat-hen	S	MS	S
Field Forget-me-not	S	MS	S
Field Pansy	S	MS	S
Hemp-nettle (Day Nettle)	S	S	S
Henbit Dead-nettle	S	S	S
Knotgrass	S	MS	S
Mayweeds	MS	–	–
Parsley Piert	S	S	S
Red Dead-nettle	S	S	S
Redshank (early germinating)	–	–	–
Scarlet Pimpernel	S	S	S
Shepherd's Purse	MS	–	MS
Small Nettle	S	–	S
Smooth Sowthistle	S	MS	S
Speedwells	S	S	S
Volunteer Oilseed Rape (1)	S	S	MS

S = Susceptible
MS = Moderately susceptible
(1) = Deep germinating Volunteer Oilseed Rape may not be controlled
– = no data

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2.2 Other crops
All weed susceptibility ratings in the table below are for applications made pre-emergence of the weeds.

CROPS	Combining peas, Sunflowers, Carrots, Parsnips, Strawberries, Bush fruit, Cane fruit, Top fruit	Onions, Leeks, Transplanted Brassicas :- (Brussels sprouts, Broccoli, Cabbages, Calabrese, Cauliflowers)	Forage Maize, Grain Maize	Potatoes :- (First Early, Second Early, Maincrop)
PRODUCT RATE (litres/ha) **Tank mix partner**	PDM 330 EC 4.0	PDM 330 EC 4.0	PDM 330 EC 4.5	PDM 330 EC 4.0 Approved metribuzin product to give 350 g/ha metribuzin
Annual Meadow-grass	S	S	S	S
Black-grass	–	–	–	–
Rough Meadow-grass	MS	MS	MS	MS
Black &White Mustard	–	–	–	–
Black bindweed	–	–	–	MS
Black Nightshade	–	–	S #	–
Charlock	–	–	–	S
Cleavers (#)	–	–	–	MS
Common Chickweed	S	S	S	S
Common Fumitory (#)	*MS	MS	MS	MS
Common Orache	S	S	S	S
Common Poppy	S	S	S	S
Corn Buttercup	–	–	–	–
Corn Marigold	S	S	S	S
Fat-hen	S	S	S	S
Field Forget-me-not	S	S	S	S
Field Pansy	S	S	S	S
Groundsel	–	–	–	S
Hemp (Day) -nettle	S	S	S	S
Henbit Dead-nettle	S	S	S	S
Knotgrass	S	S	S	S
Mayweeds (#)	–	–	–	S
Parsley Piert	S	S	S	S
Red Dead Nettle	S	S	S	S
Redshank (1)	–	–	–	S
Scarlet Pimpernel	S	S	S	S
Shepherd's Purse	*MS	MS	MS	MS
Small Nettle	S	S	S	S
Smooth Sowthistle	S	S	S	MS
Speedwells	S	S	S	S
Volunteer Oilseed Rape (2)	MS	MS	MS	S

S = Susceptible MS = Moderately susceptible
* = Control may be achieved under favourable conditions
(1) = Early germinating
(2) = Deep germinating Volunteer Oilseed Rape may not be controlled.
\# = If application is followed by a period of dry conditions, or in situations where very heavy populations occur, a sequence of PDM 330 EC and a product applied post-emergence may be necessary.
– = no data

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2.3 Resistance management

Strains of some annual grasses (eg Black-grass, Wild-Oats, and Italian Ryegrass) 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 and copies are available from the Teagasc your distributor, crop adviser or product manufacturer.
Populations of black-grass and Italian ryegrass with high levels of enhanced metabolism resistance will not be fully controlled.
Key elements of the resistance management strategy for PDM 330 EC:
- Always follow WRAG guidelines for preventing and managing herbicide resistant weeds.
- Maximise the use of cultural control measures wherever possible (e.g. crop rotation, ploughing, stale seedbeds, delayed drilling, etc).
- Use tank mixes or sequences of effective herbicides with different modes of action within individual crops, or successive crops.
- For the control of herbicide resistant grassweeds, always use PDM 330 EC in tank mix or sequence with other effective graminicides with different modes of action.
- Apply pre-emergence of weeds wherever possible. If applications are delayed, apply post-emergence products/mixtures to small, actively growing weeds, especially where high levels of resistance are suspected and to reduce the risk of resistance development.
- Monitor fields regularly and investigate the reasons for any poor control.

3. Crop specific information

PDM 330 EC is recommended for use on all varieties of approved crops on any mineral soil except where indicated in the table below.

3.1 Winter wheat, durum wheat, winter barley

Product	PDM 330 EC
Rate	3.0 or 4.0 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence of the crop to before leaf sheath erect stage, (GS30). Do not apply pre-emergence to crops drilled after 30th November.
Seed depth	Seed must be covered with a MINIMUM of 3.2 cm of settled soil. ONLY treat shallow drilled crops POST-EMERGENCE.

3.2 Winter rye, Triticale

PDM 330 EC applied alone

Product	PDM 330 EC
Rate	3.0 or 4.0 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence of the crop to before leaf sheath erect stage, (GS30). Do not apply pre-emergence to crops drilled after 30th November.
Seed depth	Seed must be covered with a MINIMUM of 3.2cm of settled soil. ONLY treat shallow drilled crops POST-EMERGENCE.

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3.3 Spring barley

Product	PDM 330 EC
Rate	4.0 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence of the crop. Apply PDM 330 EC as soon as possible after drilling and before emergence. Due to risk of dry soils, do not apply PDM 330 EC alone after the end of March unless rainfall is imminent.
Seed depth	Seed must be covered with a MINIMUM of 3.2 cm of settled soil.

3.4 Combining Peas

Product	PDM 330 EC
Rate	4.0 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence of the crop. Apply PDM 330 EC as soon as possible after sowing and final seedbed preparation. Do not apply if the plumule is less than 13 mm from the soil surface. Due to risk of dry soils, do not apply PDM 330 EC alone after the end of March unless rainfall is imminent.
Soil types	All mineral soils except gravelly soils
Seed depth	Seed must be covered with a MINIMUM of 2.5cm of settled soil.

3.5 Potatoes (First early, second early & maincrops)

Products	PDM 330 EC + approved metribuzin product to give 350g/ha metribuzin.
Rate	4.0 l/ha + appropriate rate to deliver 350g/ha metribuzin. In dry conditions apply a PDM 330 EC – metribuzin sequence.
Water volume	200 litres/hectare.
Timing	Pre-emergence of the crop. Apply as soon as possible after planting and final ridging up. Loose structured ridges must be allowed time for settlement before application. Do not apply later than 7 days before emergence.
Soil types	Do not use on Sands (S), Gravelly or Stony soils.
Variety	Read the metribuzin product label carefully, particularly with regard to varietal restrictions.
Application	PDM 330 EC should be applied in a minimum of 200 litres of water/ha.
Notes	Best weed control will be achieved with settled well-rounded ridges with few clods. If re-ridging is necessary, delay application until after the final ridging is completed. Slight distortion and discolouration of the initial shoots may occur if very heavy rain falls after application but before emergence, particularly to crops grown on very light soils. This is quickly outgrown and subsequent growth is unaffected. Read the metribuzin product label carefully, particularly with regard to following crop restrictions.

3.6 Sunflowers

Product	PDM 330 EC
Rate	4.0 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Apply as soon as possible after sowing and final seedbed cultivation, before crop and weed emergence.
Seedbed	Consolidate seedbeds after drilling to provide a firm level soil. Seed should be drilled so that after seedbed consolidation it is covered by a minimum of 2.5 cm of settled soil.

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3.7 Carrots and Parsnips

Product	PDM 330 EC
Rate	4.0 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Apply as soon as possible after drilling but before crop and weed emergence.
Notes	If emerged weeds are present after drilling but pre-emergence of the crop, PDM 300 EC may be applied in tank mix with a recommended approved contact herbicide.

3.8 Transplanted Brassicas (Broccoli, Brussels sprouts, Cabbages, Calabrese, Cauliflowers)

Product	PDM 330 EC
Rate	4.0 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Apply after final plantbed cultivation but before transplanting. Do not apply PDM 330 EC post-planting as crop damage may occur. Do not apply PDM 330 EC to any transplanted brassicas when heavy rain is forecast.
Application	Do not incorporate and avoid all unnecessary disturbance to soil after application. When transplanting care must be taken not to introduce treated soil into the root zone. If necessary, irrigation should be used before application as some moisture is essential for the chemical to be activated.
Soil types	Do not use on crops grown on sands (CS, S, FS, LCS), very light soils (LS, LFS, CSL), as crop damage may result.
Notes	If emerged weeds are present at pre-transplanting application, apply PDM 330 EC in tank mix with a recommended approved contact herbicide.

3.9 Bulb onions (Spring and autumn drilled or transplanted) and Leeks (drilled only)

Product	PDM 30 EC
Rate	4.0 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Drilled crops - apply PDM 330 EC as soon as possible after drilling but before crop or weed emergence. Transplanted crops – apply PDM 330 EC pre-transplanting. Do not apply PDM 330 EC to any onion or leek crop when heavy rain is forecast.
Seed depth	Seed should be covered with a minimum of 2.5 cm of settled soil.
Application	When transplanting, care must be taken not to introduce treated soil into the root zone.
Soil types	PDM 330 EC is not recommended for use on onions or leeks grown on sands (CS, S, FS, LCS), very light soils (LS, LFS, CSL), as crop damage may result. PDM 330 EC is not recommended for use on onions or leeks grown on fen soils or other soils containing in excess of 10% organic matter, as weed control may be reduced.
Notes	If weeds are present, these can be controlled by applying PDM 330 EC in tank mix with a recommended contact herbicide. Read tank mix partner label carefully for restrictions on transplanted multi-seeded onions or leeks.

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3.10 Forage maize, Grain maize

Product	PDM 330 EC
Rate	4.5 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence to before 4th leaf of the crop.
Notes	Do not use on Sweetcorn or Maize grown for seed. Seed must be covered by a minimum of 5 cm of settled soil. The use of PDM 330 EC may affect the full development of crown roots which function only to anchor the plant. This has no effect on the yield of maize. If application is followed by a period of dry conditions or in situations where very heavy populations occur, a sequence of PDM 330 EC and a product applied post-emergence may be necessary.

3.11 Strawberries (Maiden and Established crops)

Product	PDM 330 EC
Rate	4.0 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Maiden Beds - runners should be planted so that roots are well covered. - good consolidation of the plantbed is necessary for good weed control. - PDM 330 EC should be applied to dormant newly planted runners in the autumn or early spring immediately after planting and prior to weed emergence. - if runners are likely to be slow in establishing due to stress conditions, such as drought, at the time of planting, the application of PDM 330 EC should be delayed until plants have established and are free of stress. - application made after runners have started growing away may reduce the initial vigour of new foliage but this will be rapidly outgrown. - do not apply PDM 330 EC before October to beds newly planted with cold-stored runner or beds newly planted in late summer. - pre-planting application of PDM 330 EC is not recommended.
Timing	Established beds - apply PDM 330 EC to weed free soil from autumn to early spring during the dormant period of the crop. - PDM 330 EC applied after the end of March or after the emergence of flower trusses in the spring may affect crop yield, particularly if conditions adverse to vigorous plant growth follow application. - do not apply PDM 330 EC during the flower initiation period (immediately post-harvest to mid-September).
Notes	Leaf growth of strawberries may be checked following applications of PDM 330 EC in the spring but, in extensive experimentation, this has been shown not to affect yield. Do NOT use PDM 330 EC on protected crops or crops grown in green houses.

3.12 Bush Fruit – Blackcurrants, Gooseberries

Product	PDM 330 EC
Rate	4.0 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Apply PDM 330 EC after final cultivation to weed-free soil from autumn to early spring during the dormant period of the crop before bud burst, either over the top or as a directed spray. PDM 330 EC is not recommended for use in the season of planting.
Tank mixes	If emerged weeds are present at application, PDM 330 EC may be applied as a directed spray in tank mix with a recommended approved contact herbicide.

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3.13 Cane Fruit – Raspberries, Loganberries, Tayberries, Blackberries

Product	PDM 330 EC
Rate	4.0 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Apply PDM 330 EC after final cultivation to weed-free soil from autumn to early spring. PDM 330 EC is not recommended for use after the end of March unless adequate soil moisture is present as some soil moisture present is essential for the chemical to be activated. Do not apply to autumn fruiting raspberries. Newly planted crops: - PDM 330 EC should be applied immediately after planting. - a light ridging along the cane row before application is recommended to ensure roots are well covered. - PDM 330 EC should be applied well before the emergence of the new canes. Established crops: - PDM 330 EC should be applied as soon as the canes have been cut out and tied, but before bud burst.
Tank mixes	If emerged weeds are present at application, PDM 330 EC may be applied as a directed spray in tank mix with a recommended approved contact herbicide.

3.14 Top Fruit – Apples, Cherries, Pears, Plums

Product	PDM 330 EC
Rate	4.0 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Apply PDM 330 EC to weed-free soil from autumn to early spring. PDM 330 EC is not recommended for use after the end of March unless adequate soil moisture is present as some soil moisture is essential for the chemical to be activated. PDM 330 EC is not recommended for use in the season of planting.
Tank mixes	If emerged weeds are present at the time of application, PDM 330 EC should be applied in tank mix with a recommended approved contact herbicide.

4. Following Crops

4.1 Following crops after normal harvest
Before Rye grass is drilled after a very dry season, plough or cultivate to at least 15 cm.
If spring crops are to be followed by crops other than cereals plough or cultivate to at least 15 cm.

4.2 In the event of crop failure
In the event of crop failure the land must be ploughed or thoroughly cultivated to a minimum depth of 15 cm to ensure any residues are evenly dispersed throughout the soil.
The minimum intervals (specified below) should elapse between application of PDM 330 EC and the sowing of one of the following crops listed below.

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Application timing	Minimum interval	In the event of crop failure, the following crops may be drilled:
Autumn	5 months	Spring wheat, Spring barley, Spring Field beans, Broad beans, Dwarf beans, Brussels sprouts, Cabbage, Calabrese, Carrots, Cauliflower, Parsnips, Parsley, Peas, Potato, Linseed, Maize, Turnip
Spring & early summer	2 months	Spring Field beans, Broad beans, Dwarf beans, Brussels sprouts, Cabbage, Calabrese, Carrots, Cauliflower, Parsnips, Parsley, Peas, Linseed, Turnip
	5 months	Any crop (with the exception of Red Beet, Sugar Beet and Spinach) may be planted or sown.
	12 months	Red Beet, Sugar Beet and Spinach

5. Mixing and application

5.1 Mixing
Never prepare more spray solution than is required.
Half fill the tank with clean water and start the agitation. To ensure thorough mixing of the product, invert the container several times before opening. Add the required quantity of PDM 330 EC to the spray tank while re-circulating. Fill up the tank with water and continue agitation until spraying is completed.
When tank mixes are to be used, take due note of any instructions given as to the order of mixing. Each product should be added separately to the spray tank and fully dispersed before the addition of any further product(s).
On emptying the container, 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.

5.2 Application
Ensure good, even spray cover of the target using a FINE or MEDIUM quality spray, as defined by BCPC.
Apply PDM 330 EC in 100-200 l/ha. When tank mixing with other products use a minimum water volume of 150-200 l/ha depending on the tank mix partner.
For potatoes apply PDM 330 EC in minimum 200 l/ha.
When using 100 l/ha include an 80 mesh inline boom filter.

5.3 Sprayer cleaning
After spraying, thoroughly clean and flush out application machinery with a minimum of three rinses, to ensure that all traces of product are removed.

6. Tank Mixtures
When tank-mixing ONLY APPLY within label conditions for each product.

6.1 Sequential treatments
PDM 330 EC may be used in sequence with any other approved product. Leave a minimum interval of 24 hours unless longer is specified on the label.

PDM 330 EC may be applied in sequence with Avadex BW provided only one product is applied pre-emergence of the crop.

7. Trademark acknowledgements
Avadex is a registered trademark of Gowan.

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The following does not form part of the product label under S.I. No. 159 of 2012:

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.

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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 S.I. No 139 of 1994.

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

Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking

Product identifier

PDM 330 EC

Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: crop protection product, herbicide
Details of the supplier of the safety data sheet

Company:
BASF SE
67056 Ludwigshafen
GERMANY

Contact address:
BASF plc
PO Box 4, Earl Road, Cheadle Hulme, Cheadle, Cheshire
SK8 6QG, UNITED KINGDOM
Telephone: +44 161 485-6222
E-mail address: product-safety-north@basf.com

Emergency telephone number
International emergency number: Telephone: +49 180 2273-112

2. Hazards Identification

Label elements
Globally Harmonized System, EU (GHS)

Pictogram:

Signal Word: Danger

Hazard Statement:

H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H304	May be fatal if swallowed and enters airways.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary Statements (Prevention):

P280f	Wear protective gloves and eye/face protection.
P264	Wash with plenty of water and soap thoroughly after handling.
P270	Do no eat, drink or smoke when using this product.

Precautionary Statements (Response):

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P361	Remove/Take off immediately all contaminated clothing.

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P391	Collect spillage.
P330	Rinse mouth.
P332 + P313	If skin irritation occurs: Get medical advice/attention.

Precautionary Statements (Disposal):
P501 Dispose of contents/container in accordance with local regulations.

Labeling of special preparations (GHS):
May produce an allergic reaction. Contains: PENDIMETHALIN

According to Regulation (EC) No 1272/2008 [CLP]
Hazard determining component(s) for labelling: PENDIMETHALIN, SOLVENT NAPHTHA

According to Directive 67/548/EEC or 1999/45/EC
Classification/labelling in accordance with Irish regulations.

Hazard symbol(s)

Xn	Harmful.
N	Dangerous for the environment.

R-phrase(s)

R22	Harmful if swallowed.
R36/38	Irritating to eyes and skin.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s)

S2	Keep out of the reach of children.
S13	Keep away from food, drink and animal feeding stuffs.
S20/21	When using do not eat, drink or smoke.
S37	Wear suitable gloves.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S35	This material and its container must be disposed of in a safe way.
S46	If swallowed, seek medical advice immediately and show this container or label.
S57	Use appropriate container to avoid environmental contamination.

Hazard determining component(s) for labelling: PENDIMETHALIN, SOLVENT NAPHTHA
The product contains: PENDIMETHALIN
May produce an allergic reaction.

Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]
Asp. Tox. 1
Acute Tox. 4 (oral)
Skin Corr./Irrit. 2
Eye Dam./Irrit. 2
Aquatic Acute 1
Aquatic Chronic 1

According to Directive 67/548/EEC or 1999/45/EC
Possible Hazards: Harmful if swallowed. Irritating to eyes and skin.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
For the classifications not written out in full in this section the full text can be found in section 16.

Other hazards
According to Regulation (EC) No 1272/2008 [CLP]
See section 12 – Results of PBT and vPvB assessment.
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/Information on Ingredients

Mixtures
Chemical nature
crop protection product, herbicide, Emulsifiable concentrate (EC)
Hazardous ingredients (GHS)
according to Regulation (EC) No. 1272/2008

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pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine

Content (W/W): 31.3%	Skin Sens. 1
CAS Number: 40487-42-1	Aquatic Acute 1
EC-Number: 254-938-2	Aquatic Chronic 1
INDEX-Number: 609-042-00-X	H317, H400, H410

solvent naphtha

Content (W/W): < 60%	Asp. Tox. 1
CAS Number: 64742-94-5	Aquatic Chronic 2
REACH registration number: 01-2119451097-39	H411, H304, EUH066

Calcium alkyl benzene sulphonate

Content (W/W): < 10%	Asp. Tox. 1
	Flam. Liq. 3
	Acute Tox. 4 (Inhalation – vapour)
	Skin Corr./Irrit. 2
	Eye Dam./Irrit. 1
	STOT SE 3 (drowsiness and dizziness)
	H318, H315, H332, H226, H304, H336

2-methylpropan-1-ol; iso-butanol

Content (W/W): < 5%	Flam. Liq. 3
CAS Number: 78-83-1	Skin Corr./Irrit. 2
EC-Number: 201-148-0	Eye Dam./Irrit. 1
REACH registration number: 01-2119484609-23	STOT SE 3 (drowsiness and dizziness)
INDEX-Number: 603-108-00-1	STOT SE 3 (irr. to respiratory syst.)
	H318, H315, H226, H336, H335

naphthalene

Content (W/W): < 1%	Acute Tox. 4 (oral)
CAS Number: 91-20-3	Carc. 2
EC-Number: 202-049-5	Aquatic Acute 1
INDEX-Number: 601-052-00-2	Aquatic Chronic 1
	M-factor acute: 1
	M-factor chronic: 1
	H302, H400, H410, H351

Hazardous ingredients
according to Directive 1999/45/EC

pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine

Content (W/W): 31.3%
CAS Number: 40487-42-1
EC-Number: 254-938-2
INDEX-Number: 609-042-00-X
Hazard symbol(s): Xi, N
R-phrase(s): 43, 50/53

solvent naphtha

Content (W/W): < 60%
CAS Number: 64742-94-5
REACH registration number: 01-2119451097-39
Hazard symbol(s): Xn, N
R-phrase(s): 65, 66, 51/53

Calcium alkyl benzene sulphonate

Content (W/W): < 10%
Hazard symbol(s): Xn
R-phrase(s): 10, 20, 38, 41, 65, 67

2-methylpropan-1-ol; iso-butanol

Content (W/W): < 5%
CAS Number: 78-83-1
EC-Number: 201-148-0
REACH registration number: 01-2119484609-23
INDEX-Number: 603-108-00-1
Hazard symbol(s): Xi
R-phrase(s): 10, 37/38, 41, 67

naphthalene

Content (W/W): < 1%

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CAS Number: 91-20-3
EC-Number: 202-049-5
INDEX-Number: 601-052-00-2
Hazard symbol(s): Xn, N
R-phrase(s): 22, 40, 50/53
Carc. Cat. 3

For the classifications not written out in full in this section, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, the full text is listed in section 16.

4. First-Aid Measures

Description of first aid measures
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.
If inhaled: Keep patient calm, remove to fresh air, seek medical attention.
On skin contact: Immediately wash thoroughly with soap and water, seek medical attention.
On contact with eyes: Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
On ingestion: Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention. Do not induce vomiting due to aspiration hazard.

Most important symptoms and effects, both acute and delayed
Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

Indication of any immediate medical attention and special treatment needed
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media
Suitable extinguishing media: water spray, carbon dioxide, foam, dry powder

Special hazards arising from the substance or mixture
carbon monoxide, Carbon dioxide, nitrogen oxides, sulfur oxides
The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters
Special protective equipment: Wear self-contained breathing apparatus and chemical-protective clothing.

Further information: Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

Environmental precautions
Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.
Do not allow contamination of public drains or surface or ground waters. Inform local water plc if spillage enters drains and the Environmental Protection Agency if it enters surface or ground waters. Keep people and animals away.

Methods and material for containment and cleaning up
For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).
For large amounts: Dike spillage. Pump off product. Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

Reference to other sections
Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

7. Handling and Storage

Precautions for safe handling
No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

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Protection against fire and explosion: Vapours may form ignitable mixture with air. Prevent electrostatic charge – sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Conditions for safe storage, including any incompatibilities
Segregate from foods and animal feeds.
Further information on storage conditions: Keep away from heat. Protect from direct sunlight.
Protect from temperatures below: 0 °C
The product can crystallize below the limit temperature. Protect from temperatures above: 40 °C
Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

Specific end use(s)
For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure Controls/Personal Protection

Control parameters
Components with workplace control parameters

78-83-1: 2-methylpropan-1-ol; iso-butanol
TWA value 150 mg/m3 ; 50 ppm (OEL (IE))
STEL value 225 mg/m3 ; 75 ppm (OEL (IE))
91-20-3: naphthalene
TWA value 50 mg/m3 ; 10 ppm (OEL (IE))
STEL value 75 mg/m3 ; 15 ppm (OEL (IE))
STEL value 75 mg/m3 ; 15 ppm (OEL (IE))
Indicative OELV
TWA value 50 mg/m3 ; 10 ppm (OEL (IE))
Indicative OELV
Refer to the current schedule of occupational exposure standards published by the Irish HSA. For normal use and handling refer to the product label/leaflet. In all other cases the following apply.

Exposure controls
Personal protective equipment

Respiratory protection: Suitable respiratory protection for higher concentrations or long-term effect: Combination filter for gases/vapours of organic, inorganic, acid inorganic and alkaline compounds (e.g. EN 14387 Type ABEK).
Hand protection: Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other
Eye protection: Safety glasses with side-shields (frame goggles) (e.g. EN 166)
Body protection: Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures
The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Form:	liquid	
Colour:	dark brown	
Odour:	of the solvent contained in the product	
Odour threshold:	not determined	
pH value:	approx. 5 – 8(1 %(m), 20 °C)	(as an emulsion)
Melting point:	The product has not been tested.	
Boiling range:	approx. 244 – 292 °C	Information applies to the solvent.
Flash point:	approx. 61 °C	(DIN 51755)
Evaporation rate:	not applicable	
Flammability:	not determined	
Lower explosion limit:	not determined	
Upper explosion limit:	not determined	
Ignition temperature:	375 °C	(Directive 92/69/EEC, A.15)
Vapour pressure:	approx. 100 hPa(20 °C)	Information applies to the solvent.
Density:	approx. 1.054 g/cm3 (20 °C)	(OECD Guideline 109)

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Relative vapour density (air):	not determined	
Solubility in water:	emulsifiable	
Partitioning coefficient n-octanol/water (log Kow):	not applicable	
Thermal decomposition:	not determined	
Viscosity, dynamic:	10 – 15 mPa.s (25 °C)	not determined
Viscosity, kinematic:	7 mm2/s	(40 °C)
Explosion hazard:	not explosive	(Directive 92/69/EEC, A.14)
Fire promoting properties:	not fire-propagating	(UN Test O.2 (oxidizing liquids))

Other information
If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.
Chemical stability
The product is stable if stored and handled as prescribed/indicated.
Possibility of hazardous reactions
No hazardous reactions if stored and handled as prescribed/indicated.
Conditions to avoid
See MSDS section 7 – Handling and storage.
Incompatible materials
Substances to avoid: strong acids, strong bases, strong oxidizing agents
Hazardous decomposition products
Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Information on toxicological effects
Acute toxicity
Assessment of acute toxicity: Of moderate toxicity after single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

Experimental/calculated data:
LD50 rat (oral): > 500 – < 2,000 mg/kg (OECD Guideline 423)
LC50 rat (by inhalation): > 5.2 mg/l 4 h (OECD Guideline 403) An aerosol was tested.
LD50 rat (dermal): > 4,000 mg/kg (OECD Guideline 402). No mortality was observed.

Irritation
Assessment of irritating effects: Skin contact causes irritation. Eye contact causes irritation.

Experimental/calculated data:
Skin corrosion/irritation rabbit: Irritant. (OECD Guideline 404)
Serious eye damage/irritation rabbit: Irritant. (OECD Guideline 405)

Respiratory/Skin sensitization
Assessment of sensitization: There is no evidence of a skin-sensitizing potential.

Experimental/calculated data:
modified Buehler test guinea pig: Skin sensitizing effects were not observed in animal studies. (OECD Guideline 406)

Germ cell mutagenicity
Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: naphthalene
Assessment of mutagenicity: The substance was not mutagenic in bacteria. The substance was mutagenic in a mammalian cell culture test system. The substance was not mutagenic in a test with mammals. Literature data.

Carcinogenicity
Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine
Assessment of carcinogenicity: In long-term studies in rats the substance induced thyroid tumors. The effect is caused by

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an animal specific mechanism that has no human counter part. In long-term studies in mice in which the substance was given by feed, a carcinogenic effect was not observed.

Information on: naphthalene
Assessment of carcinogenicity: Indication of possible carcinogenic effect in animal tests.

Reproductive toxicity
Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Developmental toxicity
Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)
Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine
Assessment of repeated dose toxicity: No substance-specific organtoxicity was observed after repeated administration to animals. Adaptive effects were observed after repeated exposure in animal studies.

Aspiration hazard
May also damage the lung at swallowing (aspiration hazard).

Other relevant toxicity information
Misuse can be harmful to health.

12. Ecological Information

Toxicity
Assessment of aquatic toxicity: Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
Toxicity to fish: LC50 (96 h) 1.5 mg/l, Oncorhynchus mykiss (EPA 72-1, static)
Aquatic invertebrates: EC50 (48 h) 1.76 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)
Aquatic plants: EC50 (72 h) 0.362 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)

Persistence and degradability
Assessment biodegradation and elimination (H2O): individual components.
Information on: pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine
Assessment biodegradation and elimination (H2O): Not readily biodegradable (by OECD criteria).

Bioaccumulative potential
Assessment bioaccumulation potential: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine
Bioaccumulation potential: Bioconcentration factor: 5,100, Lepomis macrochirus
Based on a weight of evidence, the compound will not bioaccumulate.

Mobility in soil (and other compartments if available)
Assessment transport between environmental compartments: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine
Assessment transport between environmental compartments: Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Results of PBT and vPvB assessment
The product does not contain a substance fullfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

Other adverse effects
The product does not contain substances that are listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

Additional information
Other ecotoxicological advice: Do not discharge product into the environment without control.

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13. Disposal Considerations

Waste treatment methods
Must be sent to a suitable incineration plant, observing local regulations.
Contaminated packaging: Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Land transport
ADR

UN number	UN3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains SOLVENT NAPHTHA, PENDIMETHALIN)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	Tunnel code: E

RID

UN number	UN3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains SOLVENT NAPHTHA, PENDIMETHALIN)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	None known

Inland waterway transport
ADN

UN number	UN3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains SOLVENT NAPHTHA, PENDIMETHALIN)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	None known
Transport in inland waterway vessel:	Not evaluated

Sea transport
IMDG

UN number:	UN 3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains SOLVENT NAPHTHA, PENDIMETHALIN)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Marine pollutant:	YES
Special precautions for user:	None known

Air transport
IATA/ICAO

UN number:	UN 3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains SOLVENT NAPHTHA, PENDIMETHALIN)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	None known

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

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15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture
For the user of this plant-protective product applies: 'To avoid risks to man and the environment, comply with the instructions for use.' (Directive 1999/45/EC, Article 10, No. 1.2)
This product may be subject to the Seveso II Directive and amendments if specific threshold tonnages are exceeded.
For further medical advice Doctors should contact the National Poisons Information Centre at Beaumont Hospital, Dublin.
Chemical Safety Assessment
Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

16. Other Information

For proper and safe use of this product, please refer to the approval conditions laid down on the product label.
Full text of the classifications, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, if mentioned in section 2 or 3:

Xi	Irritant.
N	Dangerous for the environment.
Xn	Harmful.
43	May cause sensitization by skin contact.
50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
65	Harmful: may cause lung damage if swallowed.
66	Repeated exposure may cause skin dryness or cracking.
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
10	Flammable.
20	Harmful by inhalation.
38	Irritating to skin.
41	Risk of serious damage to eyes.
67	Vapours may cause drowsiness and dizziness.
37/38	Irritating to respiratory system and skin.
22	Harmful if swallowed.
40	Limited evidence of a carcinogenic effect.
Asp. Tox.	Aspiration hazard
Acute Tox.	Acute toxicity
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
Aquatic Acute	Hazardous to the aquatic environment – acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic
Skin Sens.	Skin sensitization
Flam. Liq.	Flammable liquid
STOT SE	Specific target organ toxicity — single exposure
Carc.	Carcinogenicity
Carc. Cat. 3	Carcinogenic substances Category 3: Substances which cause concern for man owing to possible carcinogenic effects.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H304	May be fatal if swallowed and enters airways.
EUH066	Repeated exposure may cause skin dryness or cracking.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H332	Harmful if inhaled.
H226	Flammable liquid and vapour.
H336	May cause drowsiness or dizziness.
H335	May cause respiratory irritation.
H302	Harmful if swallowed.
H351	Suspected of causing cancer.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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