Stomp® Aqua

H

MAPP 14664

A capsule suspension containing 455 g/l pendimethalin. A herbicide for the control of a range of grass and annual broad-leaved weeds in a wide range of crops.

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

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 when handling the concentrate.
WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when applying by hand held equipment However, engineering controls may replace personal protective equipment if a COSHH assessment shows that they provide an equal or higher standard of protection.
WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves
WASH CONCENTRATE from skin or eyes immediately.
WASH HANDS AND EXPOSED SKIN before meals and after work.
AVOID ALL CONTACT BY MOUTH.
DO NOT BREATHE SPRAY

Environmental protection

Extreme care should be taken to avoid damage by drift onto plants outside the target area.
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). To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies in line with LERAP requirement.
DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 m of the top of the bank of a static or flowing water body, unless a Local Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1m of the top of a ditch which is dry at the time of application. Aim spray away from water. This product qualifies for inclusion within the Local Environment Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer, either a LERAP must be carried out in accordance with PSD's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

Storage and disposal

KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely. Keep dry and frostproof in a suitable pesticide store.

LERAP

10 L

This label is compliant with the CPA Voluntary Initiative Guidance

The Voluntary Initiative

Supplied by:
BASF plc
Crop Protection
PO Box 4, Earl Road
Cheadle Hulme, CHEADLE
Cheshire SK8 6QG
Tel: 0161 485 6222
Emergency Information:
(24 hours freephone):
0049 180 2273112
Technical Enquiries:
0845 602 2553 (office hours)

BASF
The Chemical Company

81080158GB1093

Stomp® Aqua

A capsule suspension containing 455 g/litre pendimethalin

WARNING:
VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

COLLECT SPILLAGE.
DISPOSE OF CONTENTS/CONTAINER IN ACCORDANCE WITH LOCAL REGULATIONS.

CONTAINS PENDIMETHALIN. MAY PRODUCE AN ALLERGIC REACTION.

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

This product is approved under the Plant Protection Products Regulations.

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

Crops	Maximum Individual Dose	Maximum Number of Treatments	Latest Time of Application
Winter wheat, Durum wheat, Winter barley, Winter rye and Triticale	2.9 litres product/ha	One per crop	Before leaf sheath erect stage (crop GS 30)
Spring barley, potato, combining pea and sunflower	2.9 litres product/ha	One per crop	Pre-crop emergence
Forage maize, Grain maize	3.3 litres product/ha	One per crop	Before 4th leaf stage
Forage maize (grown under temporary plastic mulch), Grain maize (grown under temporary plastic mulch)	3.3 litres product/ha	One per crop	Pre-crop emergence
Bulb onion (spring and autumn, drilled and transplanted)	2.9 litres product/ha	One per crop	Pre-crop emergence
Leek	2.9 litres product/ha	One per crop	Pre-crop emergence
Carrot and parsnip	2.9 litres product/ha	One per crop	Pre-crop emergence
Broccoli/calabrese, Brussels sprout, Cabbage, Cauliflower	2.9 litres product/ha	One per crop	Before transplanting
Blackcurrant, Gooseberry	2.9 litres product/ha	One per year	Before bud burst
Strawberry	2.9 litres product/ha	One per year	After flower initiation but before flower truss emergence
Apple, Cherry, Pear, Plum	2.9 litres product/ha	One per year	Before bud burst
Raspberry, Loganberry, Rubus hybrid, Blackberry	2.9 litres product/ha	One per year	After harvest but before bud burst

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.

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 STOMP AQUA 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 STOMP AQUA has been applied as this will result in reduced weed control.
Where cultural techniques which encourage the build up of organic residues in the surface soil are practised 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

Stomp Aqua may be used on all mineral soil types.
Do not use on soils with more than 10% organic matter.
On stony or gravely soils there is a risk of crop damage, especially if heavy rain falls soon after application.
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 75mm (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 should be taken to avoid damage by drift onto plants outside the target area.
Do not apply STOMP AQUA 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 3.2cm of settled soil (2.5cm for Peas and Sunflowers, 5cm 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 STOMP AQUA.
STOMP AQUA should not be used on protected crops, or in greenhouses.

1.5 Other Restrictions/Warnings

Before using STOMP AQUA on crops to be processed please consult your processor.

Concentrated or diluted STOMP AQUA may 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.

2. Weed Control

2.1 Cereals

2.1.1 STOMP AQUA 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	STOMP AQUA		STOMP AQUA
RATE (litres/ha)	2.9	2.2	2.9
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 Sow thistle	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

2.1.2 Stomp Aqua plus tank mix partner

CROPS	Winter Wheat	Winter Wheat
PRODUCT	STOMP AQUA	STOMP AQUA
RATE (litres/ha)	2.9	2.9
Tank mix partner RATE (g a.s./ha or g/ha)	Atlantis WG 400 g/ha + 0.5% Biopower	Lexus SX 20 g/ha
GRASS WEED CONTROL		
Annual Meadow-grass	S up to 1st node (GS 31)	S pre-em,MS up to 2 lvs
Awned Canary Grass	-	-
Black-grass	S up to 1st node (GS 31)	S up to mid tiller
Loose Silky Bent	-	S up to 3 lvs
Rough Meadow-grass	S up to 1st node (GS 31)	MS pre-em,MS up to 2 lvs
Italian Ryegrass	S up to stem elongation (GS 30)	-
Perennial Ryegrass (from seed)	S up to 1st node (GS 31)	-

Wild oats (Autumn germinating)	S up to 1st node (GS 31)	-
CROPS	Winter Wheat	Winter Wheat
PRODUCT RATE (litres/ha)	STOMP AQUA 2.9	STOMP AQUA 2.9
Tank mix partner RATE (g a.s./ha or g/ha)	Atlantis WG 400 g/ha + 0.5% Biopower	Lexus SX 20 g/ha
BROAD-LEAVED WEEDS		
Black-bindweed	-	-
Charlock	S up to 2 lvs	S up to 6 lvs
Cleavers	S up to 2 whorl	MR up to 1 whorl
Common Chickweed	S up to 8 lvs	MS up to 6 lvs (2)
Common Fumitory	MS pre-em	MS pre-em
Common Orache	S pre-em	S pre-em
Common Poppy	S up to 8 lvs	MS up to 6 lvs
Corn Marigold	S pre-em	S pre-em
Corn Spurrey	-	-
Crane's bill	-	S up to 6 lvs
Fat-hen	S pre-em	S pre-em
Field Forget-me-not	S pre-em	S up to 6 lvs
Field Pansy	S up to 2 lvs	S pre-em
Fools Parsley	-	-
Groundsel	-	S up to 6 lvs
Hemp-nettle (Day Nettle)	S pre-em	S pre-em
Henbit Dead-nettle	S pre-em	S up to 6 lvs
Knotgrass	S pre-em	S pre-em
Mayweeds	S up to 8 lvs	S up to 6 lvs
Parsley Piert	S pre-em	S pre-em
Red Dead-nettle	S pre-em	S pre-em
Redshank (early germinating)	-	-
Scarlet Pimpernel	S pre-em	S pre-em
Shepherd's Purse	S up to 4 lvs	S up to 6 lvs
Small Nettle	S pre-em	S pre-em
Smooth Sowthistle	S pre-em	S pre-em
Speedwells	S up to 2 lvs	S pre-em
Volunteer Oilseed Rape (1)	S pre-em	S up to 6 lvs
Wild radish	-	-

S = Susceptible
MS = Moderately susceptible
(1) = Deep germinating Volunteer Oilseed Rape may not be controlled
(2) = Regrowth of chickweed may occur where residual activity is reduced by excessive rainfall, warm soils and/or very dry soil conditions.
- = no data

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 and Grain Maize (including crops grown under temporary plastic mulch)	Potatoes :- (First Early Second Early, Maincrop)

PRODUCT RATE (litres/ha) **Tank mix partner** RATE (kg or litres/ha)	STOMP AQUA 2.9	STOMP AQUA 2.9	STOMP AQUA 3.3	STOMP AQUA 2.9 Sencorex WG 0.5 kg/ha
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 Stomp Aqua and a product applied post-emergence may be necessary.
- = no data

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 HGCA, CPA, 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 STOMP AQUA:
- 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 STOMP AQUA 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
Stomp Aqua is recommended for use on all varieties of approved crops on any mineral soil except where indicated in the tables below.

3.1 Winter wheat including Durum wheat, winter barley

STOMP AQUA applied alone

Product	STOMP AQUA
Rate	2.9 or 2.2 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.

3.2 Winter wheat

STOMP AQUA applied in tank mix with Atlantis WG

Product	STOMP AQUA + Atlantis WG + Biopower
Rate	2.9 l/ha + 400 g/ha + 0.5%
Water volume	200 litres/hectare.
Timing	Apply post-emergence from 2 leaves on the crop. Apply to young, actively growing weeds.Optimum timing for Black-grass control is 1-3 leaves of the Black-grass.
Notes	For optimum activity, apply when weather conditions promote active weed growth. Do not apply to crops suffering from stress, which may be caused for example by pests, disease, water logging, poor seedbed conditions or previous chemical treatment. Under certain climatic, soil and crop conditions some slight chlorosis and stunting of the crop may occur. If frost is likely, avoid spraying non frost-hardened crops. Avoid spraying during periods of prolonged or severe frost. Control may be reduced if rain falls within 2 hours of application. Thoroughly clean all spray equipment with a proprietary sprayer cleaner immediately after spraying to avoid subsequent damage to crops other than cereals. Consult Atlantis WG product label for information on sequences with other sulfonylurea or 'ALS-inhibiting' herbicides

STOMP AQUA applied in tank mix with Lexus SX

Product	STOMP AQUA + Lexus SX
Rate	2.9 l/ha + 20 g/ha
Water volume	100 to 200 litres/hectare.
Timing	Apply pre or post-emergence from 1 leaf on the crop. Post-emergence best applied to small, actively growing weeds. Optimum post-emergence timing for Black-grass control is 1-2 leaves of the Black-grass.
Notes	For optimum activity, apply when weather conditions promote active weed growth. Do not apply to crops suffering from stress, which may be caused for example by pests, disease, water logging, poor seedbed conditions or previous chemical treatment. Under certain climatic soil and crop conditions some slight chlorosis and stunting of the crop may occur. If frost is likely, avoid spraying non frost-hardened crops. Avoid spraying during periods of prolonged or severe frost. Do not apply if rain is imminent. Thoroughly clean all spray equipment with a proprietary sprayer cleaner immediately after spraying to avoid subsequent damage to crops other than cereals. Consult Lexus SX product label for information on sequences with other sulfonylurea or 'ALS-inhibiting' herbicides.

3.3 Winter rye, Triticale

Product	STOMP AQUA
Rate	2.9 or 2.2 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

3.4 Spring barley

Product	STOMP AQUA
Rate	2.9 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence of the crop. Apply STOMP AQUA as soon as possible after drilling and before emergence. Due to risk of dry soils, do not apply STOMP AQUA alone after the end of March (mid April in Scotland) unless rainfall is imminent.
Seed depth	Seed must be covered with a MINIMUM of 3.2cm of settled soil.

3.5 Combining Peas

Product	STOMP AQUA
Rate	2.9 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence of the crop. Apply STOMP AQUA as soon as possible after sowing and final seedbed preparation. Do not apply if the plumule is less than 13mm from the soil surface. Due to risk of dry soils, do not apply STOMP AQUA alone after the end of March (mid April in Scotland) 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.

3.6 Potatoes (First early, second early & maincrops)

Products	STOMP AQUA + Sencorex WG
Rate	2.9 l/ha + 0.5 kg/ha. In dry conditions apply a STOMP AQUA – Sencorex WG 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 Sencorex WG label carefully, particularly with regard to varietal restrictions.
Application	STOMP AQUA + Sencorex WG 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 Sencorex WG label carefully, particularly with regard to following crop restrictions.

3.7 Sunflowers

Product	STOMP AQUA
Rate	2.9 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 2.5cm of settled soil.

3.8 Carrots and Parsnips

Product	STOMP AQUA
Rate	2.9 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, STOMP AQUA may be applied in tank mix with a recommended approved contact herbicide.

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

Product	STOMP AQUA
Rate	2.9 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Apply after final plantbed cultivation but before transplanting. Do not apply STOMP AQUA post-planting as crop damage may occur. Do not apply STOMP AQUA 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 STOMP AQUA in tank mix with a recommended approved contact herbicide.

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

Product	STOMP AQUA
Rate	2.9 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Drilled crops - apply STOMP AQUA as soon as possible after drilling but before crop or weed emergence. Transplanted crops - apply STOMP AQUA pre-transplanting. Do not apply STOMP AQUA to any onion or leek crop when heavy rain is forecast.
Seed depth	Seed should be covered with a minimum of 2.5cm of settled soil.
Application	When transplanting, care must be taken not to introduce treated soil into the root zone.
Soil types	STOMP AQUA 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. STOMP AQUA 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 STOMP AQUA in tank mix with a recommended contact herbicide. Read tank mix partner label carefully for restrictions on transplanted multi-seeded onions or leeks.

3.11 Forage and Grain maize (including crops grown under temporary plastic mulch)

Product	STOMP AQUA
Rate	3.3 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Forage and grain maize: before 4th leaf of the crop. Maize grown under temporary plastic mulch: pre-emergence.
Notes	Do not use on Sweetcorn or Maize grown for seed.Seed must be covered by a minimum of 5cm of settled soil. The use of STOMP AQUA 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 STOMP AQUA and a product applied post-emergence may be necessary.

3.12 Strawberries (Maiden and Established crops)

Product	STOMP AQUA
Rate	2.9 l/ha
Water volume	100 to 200 litres/hectare.
Timing	<u>Maiden Beds</u> - runners should be planted so that roots are well covered. - good consolidation of the plantbed is necessary for good weed control. - STOMP AQUA 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 STOMP AQUA 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 STOMP AQUA before October to beds newly planted with cold-stored runners or beds newly planted in late summer. - pre-planting application of STOMP AQUA is not recommended. <u>Established beds</u> - apply STOMP AQUA to weed free soil from autumn to early spring during the dormant period of the crop. - STOMP AQUA 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 STOMP AQUA during the flower initiation period (immediately post-harvest to mid-September).
Notes	Leaf growth of strawberries may be checked following applications of STOMP AQUA in the spring but, in extensive experimentation, this has been shown not to affect yield. Do NOT use STOMP AQUA on protected crops or crops grown in green houses.

3.13 Bush Fruit – Blackcurrants, Gooseberries

Product	STOMP AQUA
Rate	2.9 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Apply STOMP AQUA 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. STOMP AQUA is not recommended for use in the season of planting.
Tank mixes	If emerged weeds are present at application, STOMP AQUA may be applied as a directed spray in tank mix with a recommended approved contact herbicide.

3.14 Cane Fruit – Raspberries, Loganberries, Tayberries, Blackberries

Product	STOMP AQUA
Rate	2.9 l/ha
Water volume	100 to 200 litres/hectare.

Timing	Apply STOMP AQUA after final cultivation to weed-free soil from autumn to early spring. STOMP AQUA 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: - STOMP AQUA should be applied immediately after planting. - a light ridging along the cane row before application is recommended to ensure roots are well covered. - STOMP AQUA should be applied well before the emergence of the new canes. Established crops: - STOMP AQUA 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, STOMP AQUA may be applied as a directed spray in tank mix with a recommended approved contact herbicide.

5 Top Fruit – Apples, Cherries, Pears, Plums

Product	STOMP AQUA
Rate	2.9 l/ha
Water volume	100 to 200 litres/hectare.
Timing	Apply STOMP AQUA to weed-free soil from autumn to early spring. STOMP AQUA 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. STOMP AQUA is not recommended for use in the season of planting.
Tank mixes	If emerged weeds are present at the time of application, STOMP AQUA 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 15cm.
If spring crops are to be followed by crops other than cereals plough or cultivate to at least 15cm.

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 15cm to ensure any residues are evenly dispersed throughout the soil.
The minimum intervals (specified below) should elapse between application of STOMP AQUA and the sowing of one of the following crops listed below.

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.
Three quarters 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 STOMP AQUA to the spray tank while re-circulating. Fill up the tank with water and continue agitation until spraying is completed.
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.
When tank mixes are to be used, each product should be added separately to the spray tank and fully dispersed before the addition of any further product(s). Add products to the spray tank in the following order:
1) Wettable powders (WP)
2) Dry flowables or water dispersible granules (WG)
3) Suspensions (e.g. Stomp Aqua)
4) Suspension concentrates (e.g. SC or SE)
5) Emulsifiable concentrates (e.g. EW or EC)
6) Soluble concentrates (SL)

Maintain agitation at all times.
Spray out as soon as possible after mixing.
Do not let the mixture stand.

5.2 Application
Ensure good, even spray cover of the target using a FINE or MEDIUM quality spray, as defined by BCPC.
Apply STOMP AQUA in 100-200 l/ha. For potatoes apply STOMP AQUA in minimum 200 l/ha water.
When tank mixing with other products use a minimum water volume of 150-200 l/ha depending on the tank mix partner.
Do not use less than 30 mesh inline boom or nozzle filters.

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 to avoid sticking of dried material to spray tank walls or spray lines, etc.

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

6.1 Tank mixes for Winter cereals
If tank mixing with mecoprop, follow stewardship guidelines for timing of applications and rates of use.

Two-way mixes (up to max of 2.9 l/ha STOMP AQUA)	**Ally SX**
	Atlantis WG
	Lexus SX
	Oxytril CM
	Dursban 4
	Spannit
	Duplosan KV
	Decis
	Toppel 10

Omex Suspension Fertilisers :
STOMP AQUA may be applied pre-emergence of both crop and weeds in tank-mix with the Omex range of suspension fertilisers.
Pre-mix STOMP AQUA 1-to-1 with water prior to mixing with liquid fertilisers.
Add STOMP AQUA to the spray tank through the injection lance on the Omex equipment and continuous agitation should be maintained during mixing and until application is completed.
Apply in a minimum of 200 litres/hectare.
Do not soil incorporate.
For best weed control, an even coverage of the soil with the spray is essential.

6.1.2 Sequential treatments
STOMP AQUA may be used in sequence with any other approved product. Leave a minimum interval of 24 hours unless longer is specified on the label.

STOMP AQUA may be applied in sequence with Avadex Excel 15G provided only one product is applied pre-emergence of the crop.

6.2 Tank mixes for other crops

Potatoes	Sencorex WG	Do not exceed rates given in Weed Control section for STOMP AQUA + Sencorex WG

For up-to-date details of compatible tank-mixes, contact your supplier, local BASF representative or BASF Technical Services Hotline on 0845 6022553.

7. Trademark acknowledgements

Cycocel, Claymore and Stomp are registered trademarks of BASF.
Ally and Lexus are registered trademarks of DuPont.
Atlantis and Oxytril are registered trademarks of Bayer Cropscience Ltd.
Avadex is a registered trademark of Gowan.
Dursban and Flexidor are registered trademarks of Dow AgroSciences.
Spannit is a registered trademark of SumiAgro Limited.

The following does not form part of the product label under the UK Plant Protection Products Regulations or the Irish S.I. No. 83 of 2003.

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.

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 the Control of Pesticides Regulations.

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

Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

STOMP AQUA

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: crop protection product, herbicide

1.3. 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

1.4. Emergency telephone number

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

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]
Aquatic Chronic 1

According to Directive 67/548/EEC or 1999/45/EC
Possible Hazards: 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.

2.2. Label elements

Globally Harmonized System, EU (GHS)
Pictogram:

Signal Word:
Warning

Hazard Statement:

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 (Response):

P391	Collect spillage.

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, DIPHENYLMETHANE-4,4'- DIISOCYANATE (MDI), METHYLENEDIPHENYLDIISOCYANATE

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

Hazard symbol(s)
N — Dangerous for the environment.

R-phrase(s)
R51/53 — 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.
S24 — Avoid contact with skin.
S35 — This material and its container must be disposed of in a safe way.
S37 — Wear suitable gloves.
S57 — Use appropriate container to avoid environmental contamination.

The product contains: pendimethalin, DIPHENYLMETHANE-4,4'-DIISOCYANATE (MDI), METHYLENEDIPHENYLDIISOCYANATE
May produce an allergic reaction.

2.3. 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.

SECTION 3: Composition/Information on Ingredients

3.1. Substances
Not applicable

3.2. Mixtures

Chemical nature
crop protection product, herbicide, capsule suspension (CS)

Hazardous ingredients (GHS)
according to Regulation (EC) No. 1272/2008

pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine
Content (W/W): 38.72 %
CAS Number: 40487-42-1
EC-Number: 254-938-2
INDEX-Number: 609-042-00-X
Skin Sens. 1
Aquatic Acute 1
Aquatic Chronic 1

4,4'-METHYLENEDIPHENYL DIISOCYANATE; DIPHENYLMETHANE-4,4'-DIISOCYANATE
Content (W/W): < 1 %
CAS Number: 101-68-8
EC-Number: 202-966-0
REACH registration number: 01-2119457014-47
INDEX-Number: 615-005-00-9
Acute Tox. 4 (Inhalation – mist)
Skin Corr./Irrit. 2
Eye Dam./Irrit. 2
Resp. Sens. 1
Skin Sens. 1
Carc. 2
STOT SE 3 (irr. to respiratory syst.)
STOT RE (Olfactory organs) 2 (by inhalation)
H319, H315, H332, H334, H317, H335, H351, H373

methylenediphenyl diisocyanate
Content (W/W): < 1 %
CAS Number: 26447-40-5
EC-Number: 247-714-0
REACH registration number: 01-2119457015-45
INDEX-Number: 615-005-00-9
Acute Tox. 4 (Inhalation – dust)
Skin Corr./Irrit. 2
Eye Dam./Irrit. 2
Resp. Sens. 1
Skin Sens. 1
Carc. 2
STOT SE 3 (irr. to respiratory syst.)
STOT RE 2
H319, H315, H332, H334, H317, H335, H351, H373

Magnesium sulphate
Content (W/W): < 25 %
CAS Number: 7487-88-9
EC-Number: 231-298-2

Hazardous ingredients
according to Directive 1999/45/EC

pendimethalin (ISO); N-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine
Content (W/W): 38.72 %
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

4,4'-METHYLENEDIPHENYL DIISOCYANATE; DIPHENYLMETHANE-4,4'-DIISOCYANATE
Content (W/W): < 1 %
CAS Number: 101-68-8
EC-Number: 202-966-0
REACH registration number: 01-2119457014-47
INDEX-Number: 615-005-00-9
Hazard symbol(s): Xn
R-phrase(s): 20, 36/37/38, 40, 42/43, 48/20
Carc. Cat. 3

methylenediphenyl diisocyanate
Content (W/W): < 1 %
CAS Number: 26447-40-5
EC-Number: 247-714-0
REACH registration number: 01-2119457015-45
INDEX-Number: 615-005-00-9
Hazard symbol(s): Xn
R-phrase(s): 20, 36/37/38, 40, 42/43, 48/20
Carc. Cat. 3

Magnesium sulphate
Content (W/W): < 25 %
CAS Number: 7487-88-9
EC-Number: 231-298-2

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.

SECTION 4: First-Aid Measures

4.1. Description of first aid measures
Show container, label and/or safety data sheet to physician.

If inhaled:
Keep patient calm, remove to fresh air.

On skin contact:
Wash thoroughly with soap and water.

On contact with eyes:
Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:
Rinse mouth and then drink plenty of water.

4.2. 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.

4.3. Indication of any immediate medical attention and special treatment needed
Treatment: Symptomatic treatment (decontamination, vital functions).

SECTION 5: Fire-Fighting Measures

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

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

5.3. 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.

SECTION 6: Accidental Release Measures

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

6.2. Environmental precautions
Do not allow contamination of public drains or surface or ground waters. Inform local water plc if spillage enters drains and the Environment Agency (England & Wales), the Scottish Environmental Protection Agency (Scotland), or the Environment and Heritage Service (Northern Ireland) if it enters surface or ground waters. Keep people and animals away.

6.3. 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.

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

SECTION 7: Handling and Storage

7.1. 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.

Protection against fire and explosion:
No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

7.2. 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
Changes in the properties of the product may occur if substance/product is stored below indicated temperature for extended periods of time.
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.

7.3. 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.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

101-68-8: 4,4'-METHYLENEDIPHENYL DIISOCYANATE; DIPHENYLMETHANE-4,4'- DIISOCYANATE
TWA value 0.02 mg/m3 (WEL/EH 40 (UK))
Measured as: NCO
STEL value 0.07 mg/m3 (WEL/EH 40 (UK))
Measured as: NCO
26447-40-5: methylenediphenyl diisocyanate
TWA value 0.02 mg/m3 (WEL/EH 40 (UK))
Measured as: NCO
STEL value 0.07 mg/m3 (WEL/EH 40 (UK))
Measured as: NCO

Refer to the current edition of HSE Guidance Note EH40 Occupational Exposure Limits (United Kingdom). For normal use and handling refer to the product label/ leaflet. In all other cases the following apply.

8.2. Exposure controls

Personal protective equipment

Respiratory protection:
Respiratory protection not required.

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.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Form:	suspension	
Colour:	yellow to brown	
Odour:	faint odour, nutty	
Odour threshold:	Not determined due to breath way sensitizing properties.	
pH value:	approx. 8 – 10 (CIPAC standard water D, 1 %(m), 21 °C)	
Melting point:	approx. 0 °C Information applies to the solvent.	
Boiling point:	approx. 100 °C Information applies to the solvent.	
Flash point:	No flash point – Measurement made up to the boiling point.	
Evaporation rate:	not applicable	
Flammability:	not highly flammable	
Lower explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.	
Upper explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.	
Ignition temperature:	354 °C	(DIN EN 14522)
Vapour pressure:	approx. 23 hPa (20 °C) Information applies to the solvent.	
Density:	approx. 1.18 g/cm³ (20 °C)	
Relative vapour density (air):	not determined	
Solubility in water:	dispersible	
Partitioning coefficient n-octanol/water (log Kow):	not applicable	
Thermal decomposition:	not determined	
Viscosity, dynamic:	128 mPa.s (20 °C, 100 1/s)	(OECD 114)
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	

9.2. Other information

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

SECTION 10: Stability and Reactivity

10.1. Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

10.2. Chemical stability
The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions
No hazardous reactions if stored and handled as prescribed/indicated.

10.4. Conditions to avoid
See MSDS section 7 – Handling and storage.

10.5. Incompatible materials

Substances to avoid:
strong acids, strong bases, strong oxidizing agents

10.6. Hazardous decomposition products

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity
Assessment of acute toxicity:
Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation.

Experimental/calculated data:
LD_{50} rat (oral): > 5,000 mg/kg (OECD Guideline 401)

LC_{50} rat (by inhalation): > 5.23 mg/l 4 h (OECD Guideline 403)
No mortality was observed. An aerosol was tested.

LD_{50} rat (dermal): > 5,000 mg/kg (OECD Guideline 402)

Irritation
Assessment of irritating effects:
Not irritating to the eyes. Not irritating to the skin.

Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404) Serious eye damage/irritation rabbit: non-irritant (OECD Guideline 405)

Respiratory/Skin sensitization
Assessment of sensitization:
There is no evidence of a skin-sensitizing potential. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data:
modified Buehler test guinea pig: Non-sensitizing. (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. Mutagenicity tests revealed no genotoxic potential.

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 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.

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.

Information on: 4,4'-METHYLENEDIPHENYL DIISOCYANATE; DIPHENYLMETHANE-4,4'- DIISOCYANATE
Assessment of teratogenicity:
The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals.

Information on: methylenediphenyl diisocyanate
Assessment of teratogenicity:
The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were 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.

Information on: 4,4'-METHYLENEDIPHENYL DIISOCYANATE; DIPHENYLMETHANE-4,4'- DIISOCYANATE
Information on: methylenediphenyl diisocyanate
Assessment of repeated dose toxicity:
After repeated exposure the prominent effect is local irritation. The substance may cause damage to the olfactory epithelium after repeated inhalation.

Other relevant toxicity information
Misuse can be harmful to health.

SECTION 12: Ecological Information

12.1. Toxicity
Assessment of aquatic toxicity:
Acutely toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Toxicity to fish:
LC_{50} (96 h) 20.36 mg/l, Oncorhynchus mykiss (OECD Guideline 203, static)

Aquatic invertebrates:
EC_{50} (48 h) > 100 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Aquatic plants:
EC_{50} (72 h) 1.49 mg/l, Pseudokirchneriella subcapitata (OECD Guideline 201)

12.2. Persistence and degradability
Assessment biodegradation and elimination (H_2O):
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 biodegradation and elimination (H2O): Not readily biodegradable (by OECD criteria).

12.3. 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
Based on a weight of evidence, the compound will not bioaccumulate.

12.4. 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:
The substance will slowly evaporate into the atmosphere from the water surface.
Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

12.5. 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.

12.6. 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.

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

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Must be sent to a suitable incineration plant, observing local regulations.

The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom).
This product and any uncleaned containers must be disposed of as hazardous waste in accordance with the 2005 Hazardous Waste Regulations and amendments (United Kingdom)
Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

SECTION 14: Transport Information

Land transport

ADR

UN number	UN3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains 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 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 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 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 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

Further information
This product is subject to the most recent edition of "The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations" and their amendments (United Kingdom).

SECTION 15: Regulatory Information

15.1. 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)

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

The data should be considered when making any assessment under the Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, for example, 'COSHH Essentials' (United Kingdom).
This product is classified under the Chemicals (Hazard Information and Packaging) Regulations, (CHIP) (United Kingdom).
This product may be subject to the Control of Major Accident Hazards Regulations (COMAH), and amendments if specific threshold tonnages are exceeded (United Kingdom).

15.2. Chemical Safety Assessment

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

SECTION 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.
20	Harmful by inhalation.
36/37/38	Irritating to eyes, respiratory system and skin.
40	Limited evidence of a carcinogenic effect.
42/43	May cause sensitization by inhalation and skin contact.
48/20	Harmful: Danger of serious damage to health by prolonged exposure through inhalation.
Aquatic Chronic	Hazardous to the aquatic environment – chronic
Skin Sens.	Skin sensitization
Aquatic Acute	Hazardous to the aquatic environment – acute
Acute Tox.	Acute toxicity
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
Resp. Sens.	Respiratory sensitization
Carc.	Carcinogenicity
STOT SE	Specific target organ toxicity — single exposure
STOT RE	Specific target organ toxicity — repeated exposure
Carc. Cat. 3	Carcinogenic substances Category 3: Substances which cause concern for man owing to possible carcinogenic effects.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs (Olfactory organs) through prolonged or repeated exposure (inhalation).
H373	May cause damage to organs () through prolonged or repeated exposure.

If you have any queries relating to this MSDS, it's contents or any other product safety related questions, please write to the following e-mail address:
product-safety-north@basf.com

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.

(Version: 3.0)