

# Flight®

A suspension concentrate containing 7.5 g/litre picolinafen and 330 g/litre pendimethalin and 1,2-benzisothiazole

**Warning:**  
**Very toxic to aquatic life with long lasting effects.**

Collect spillage.

Dispose of contents/container to a licensed waste disposal contractor or collection site except for triple rinsed empty containers which can be disposed of as non-hazardous waste.

Contains pendimethalin; contains 1, 2-benzisothiazole  
May produce an allergic reaction.

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

# 10 L



PCS No: 02524

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 **BASF**  
The Chemical Company

81077202|E1034



## 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) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate.

WEAR SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces.

WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves.

WASH HANDS before meals and after work.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

IF YOU FEEL UNWELL seek medical advice (show the label if possible).

### Environmental protection

Do not contaminate ponds, waterways or ditches with chemical or used container.

**DO NOT ALLOW DIRECT SPRAY from ground crop sprayers to fall within 5m of the top of the bank of a static or flowing waterbody. Direct spray away from water.**

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).

### Storage and disposal

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

KEEP OUT OF REACH OF CHILDREN.

DO NOT RE-USE CONTAINER for any other purpose.

STORE IN ORIGINAL CONTAINER tightly closed, in a safe place.

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.

### IMPORTANT INFORMATION

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

CROPS:	Winter Wheat Winter Barley
MAXIMUM INDIVIDUAL DOSE:	4 l/ha
MAXIMUM NUMBER OF TREATMENTS:	One per crop
LATEST TIMING:	Before pseudo-stem erect (before growth stage 30)

**READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE.**

PCS No: 02524

## 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.

Flight is a herbicide containing pendimethalin and picolinafen with residual and contact activity for use in winter wheat and winter barley.

### 1. Restrictions/Warnings

DO NOT use more than one application of Flight in one growing season.

#### Soil Types

- Flight can be used on any mineral soil.
- Residual control may be reduced on soils with more than 6% organic matter.
- DO NOT use on soils with more than 10% organic matter.
- DO NOT use on stony or gravelly soils as crop damage can occur, particularly if heavy rain follows treatment.
- DO NOT use on water logged soil or soils prone to water logging.

#### Seedbed preparation

- Seed beds must have a fine, firm tilth. Loose or cloddy seed beds must be consolidated prior to application, otherwise reduced weed control may occur. They may also cause seed to be inadequately covered which could result in crop damage.

#### Application

- For pre-emergence applications, seed should be covered with a minimum of 3.2cm of settled soil.
- Only treat shallow drilled crops post-emergence.
- Do not spray undersown cereals or those to be undersown.
- Avoid spraying during periods of prolonged or severe frosts.
- 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.
- **Extreme care should be taken to avoid damage by drift on to plants outside the target area.**

#### Emerged Crops

- Do not roll emerged crops prior to application.

#### Post-Application Requirements

- Do not soil incorporate.
- Do not disturb the soil after application.
- Do not roll autumn treated crops until the spring.
- For residual control some soil moisture is required for Flight. Best results will be obtained if rain falls within 7 days of application. Residual control may be reduced under prolonged dry conditions.
- Water logging that occurs soon after pre-emergence applications may lead to crop damage.

Some transient bleaching may be seen after application to some crops, this does not lead to yield loss.

Concentrated or diluted Flight may stain. Avoid spillage. Staining is minimised or completely removed if skin/clothes are washed immediately.

## 2. Weed Control

### 2.1 Susceptibility of weeds to single applications of Flight

Best results will be achieved by application to small actively growing weeds.

4.0l/ha FLIGHT		
GRASS WEEDS	Pre-em	Post-em
Annual Meadow-grass	S	S up to GS13
Rough Meadow-grass	MS	MS up to 2 lvs
<b>BROAD-LEAVED WEEDS</b>		
Charlock	MS pre-em	S up to 6 lvs
Cleavers	-	MS up to 1 whorl
Common Chickweed	S	S up to 6 lvs
Common Field Speedwell	S	S up to 6 lvs
Common Fumitory	MS	S up to 3 lvs
Common Orache	S	-
Common Poppy	S	S up to 6 lvs
Corn Marigold	S	-
Crane's-bill	-	S up to 4 lvs
Fat-hen	S	-
Field Forget-me-not	S	-
Field Pansy	S	S up to 6 lvs
Hemp-nettle (Day Nettle)	S	-
Henbit Dead-nettle	S	-
Ivy-leaved Speedwell	S	S up to 6 lvs
Knotgrass	S	-
Mayweeds	MS	-
Parsley Piert	S	-
Red Dead-nettle	S	S up to 6 lvs
Scarlet Pimpernel	S	-
Shepherd's Purse	MS	S up to 6 lvs
Small Nettle	S	-
Smooth Sowthistle	S	-
Volunteer Beans	MR	R
Volunteer Oilseed Rape (1)	MS	MS up to 2 lvs

S = Susceptible

MS = Moderately susceptible

R = Resistant

MR = Moderately resistant

(1) = deep germinating volunteer Oilseed Rape may not be controlled.

## 2.2 Resistance

Strains of some annual grasses (e.g. 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. Picolinafen is an inhibitor of carotenoid biosynthesis at the PDS step (a group that includes picolinafen and diflufenican).

To prevent the development of resistant weeds herbicides with different modes of action must be used when applying in sequence. Guidelines have been produced by the Weed Resistance Action Group and copies are available from HGCA, CPA, your distributor, crop adviser or product manufacturer.

## 3. Crops

Flight can be used on all varieties of Winter Wheat and Winter Barley.

### Time of application

Pre- and post- crop emergence, up to before pseudo-stem erect (before growth stage 30).

DO NOT apply pre-emergence to crops drilled after 30 November.

### Rate of application

4.0 l/ha

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

## 4. Following crops

Before rye-grass is drilled after a very dry season, plough or cultivate to at least 15 cm. 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 the application of Flight and the sowing of one of the following crops listed below.

### Autumn Applications of Flight

The following crops may be sown after a minimum of 5 months:

Spring Barley	Spring Field Beans	Brussels Sprouts	Carrots
Spring Wheat	Broad Beans	Cabbage	Parsnips
Maize	Dwarf Beans	Calabrese	Parsley
Peas	Turnips	Linseed	Cauliflower
Potatoes			

### Following Spring and Early Summer Applications

The following crops may be sown or transplanted after a minimum interval of 2 months:

Spring Field Beans	Brussels Sprouts	Carrots
Broad Beans	Cabbage	Parsnips
Dwarf Beans	Calabrese	Parsley
Peas	Cauliflower	Linseed
Turnips		

The following crops may be sown after a minimum interval of 5 months:

Any crop (with the exception of Red Beet, Sugar Beet and Spinach) may be planted or sown.

(A minimum interval of 12 months should elapse between application and sowing Red Beet, Sugar Beet and Spinach).

## 5. Mixing and Spraying

Apply Flight in 200 litres water/ha.

Ensure good, even spray cover of the target using a spray of **fine** or **medium** quality.

### Mixing

- Three-quarters fill the tank with water.
- To ensure thorough mixing of the product, invert the container several times before opening
- Add Flight while re-circulating
- Fill the tank
- Maintain circulation while spraying.
- Wash out the sprayer thoroughly after the use of Flight using a wetting agent or a proprietary spray tank cleaner particularly before using the sprayer in broad-leaved crops

## 6. Trademark Acknowledgements

® = Flight is a registered trademark of BASF.

### **The following does not form part of the product label under the UK Plant Protection Products Regulations or the Irish 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.

## 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.

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

## FLIGHT

### 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 Ireland Ltd.  
Inchera Industrial Estate, Little Island  
County Cork, REPUBLIC OF IRELAND

Telephone: +353 21 451-7100  
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:  
Warning

Hazard Statement:  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Response):  
P391 Collect spillage.

According to Directive 67/548/EEC or 1999/45/EC  
EEC Directives

Hazard symbol(s)  
N Dangerous for the environment.

R-phrases(s)  
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.  
S29/35 Do not empty into drains, this material and its container must be disposed of in a safe way.  
S57 Use appropriate container to avoid environmental contamination.

The product contains: PENDIMETHALIN  
May produce an allergic reaction.

#### Classification of the substance or mixture

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

Aquatic Acute 1  
Aquatic Chronic 1

According to Directive 67/548/EEC or 1999/45/EC

Possible Hazards:

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, suspension concentrate (SC)

##### Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

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

Content (W/W): 29.7 %	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

Picolinafen

Content (W/W): 0.68 %	Aquatic Acute 1
CAS Number: 137641-05-5	Aquatic Chronic 1
	H400, H410

sodium alkyl naphthalene sulphonate, formaldehyde condensate

Content (W/W): < 10 %	Skin Corr./Irrit. 2
	Eye Dam./Irrit. 2
	H319, H315

Propane-1,2-diol

Content (W/W): < 20 %
CAS Number: 57-55-6
EC-Number: 200-338-0, 205-500-4
REACH registration number: 01-2119456809-23

Silica gel, precipitated, crystalline free

Content (W/W): < 5 %
CAS Number: 112926-00-8
REACH registration number: 01-2119379499-16



#### Hazardous ingredients

according to Directive 1999/45/EC

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

Content (W/W): 29.7 %  
CAS Number: 40487-42-1  
EC-Number: 254-938-2  
INDEX-Number: 609-042-00-X  
Hazard symbol(s): Xi, N  
R-phrases(s): 43, 50/53

Picolinafen

Content (W/W): 0.68 %  
CAS Number: 137641-05-5  
Hazard symbol(s): N  
R-phrases(s): 50/53

sodium alkylnaphthalene sulphonate, formaldehyde condensate

Content (W/W): < 10 %  
Hazard symbol(s): Xi  
R-phrases(s): 36/38

Propane-1,2-diol

Content (W/W): < 20 %  
CAS Number: 57-55-6  
EC-Number: 200-338-0  
REACH registration number: 01-2119456809-23

Silica gel, precipitated, crystalline free

Content (W/W): < 5 %  
CAS Number: 112926-00-8  
REACH registration number: 01-2119379499-16

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

Remove contaminated clothing.

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.

##### Most important symptoms and effects, both acute and delayed

Symptoms: No significant reaction of the human body to the product known.

##### Indication of any immediate medical attention and special treatment needed

Treatment: Symptomatic treatment (decontamination, vital functions).

#### 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, hydrogen fluoride, 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 the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

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.

Protection against fire and explosion:

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

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: -5 °C

The product can crystallize below the limit temperature.

Protect from temperatures above: 35 °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

57-55-6: Propane-1,2-diol

TWA value 470 mg/m<sup>3</sup> ; 150 ppm (OEL (IE)), Total vapour and particulates

TWA value 10 mg/m<sup>3</sup> (OEL (IE)), Particulate

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, suspension	
Colour:	orange	
Odour:	sweetish	
Odour threshold:	not determined	
pH value:	approx. 5.6 – 7.6 (CIPAC standard water D, 1 %(m), 22°C)	
crystallization temperature:	approx. -6.3°C	
Boiling point:	approx. 100°C	(measured)
Flash point:	No flash point – Measurement made up to the boiling point.	(DIN EN 22719; ISO 2719)
Evaporation rate:	not applicable	
Flammability:	does not ignite	(calculated)
Lower explosion limit:	not determined	
Upper explosion limit:	not determined	
Ignition temperature:	385°C	(Directive 92/69/EEC, A.15)
	The product has not been tested. The statement has been derived from products of a similar structure or composition.	
Vapour pressure:	approx. 23 hPa (20°C)	
Density:	Information applies to the solvent. approx. 1.12 g/cm <sup>3</sup> (20°C)	(OECD Guideline 109)
Relative vapour density (air):	not determined	
Solubility in water:	dispersible	
Partitioning coefficient n-octanol/water (log Kow):	not applicable	
Self ignition:	not determined	
Thermal decomposition:	not determined	
Viscosity, dynamic:	approx. 66 – 68 mPa.s (20°C, 100 1/s)	(OECD 114)
Explosion hazard:	Based on the chemical structure there is no indicating of explosive properties.	(Directive 92/69/EEC, A.14)
Fire promoting properties:	not fire-propagating (	Directive 2004/73/EC, A.21)

**Other information**

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 oxidizing agents, strong bases, strong acids

**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:

Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. The product has not been tested. The statement has been derived from products of a similar structure or composition.

Experimental/calculated data:

LD<sub>50</sub> rat (oral): > 5,000 mg/kg (OECD Guideline 401)

LC<sub>50</sub> rat (by inhalation): > 3.75 mg/l 4 h (OECD Guideline 403)

Highest concentration available for testing. No mortality was observed. An aerosol with respiratory particles was tested.

LD<sub>50</sub> rat (dermal): > 4,000 mg/kg (OECD Guideline 402) No mortality was observed.

Irritation

Assessment of irritating effects:

Not irritating to the eyes. Not irritating to the skin. The product has not been tested. The statement has been derived from products of a similar structure or composition.

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:

Skin sensitizing effects were not observed in animal studies. The product has not been tested. The statement has been derived from products of a similar structure or composition.

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. 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. The results of various animal studies gave no indication of a carcinogenic effect.

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. No substance-specific organotoxicity was observed after repeated administration of high doses to animals.

#### 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. The product has not been tested. The statement has been derived from products of a similar structure or composition.

#### Toxicity to fish:

LC<sub>50</sub> (96 h) 4.08 mg/l, *Oncorhynchus mykiss* (EPA 72-1, Flow through.)

#### Aquatic invertebrates:

EC<sub>50</sub> (48 h) 9.81 mg/l, *Daphnia magna* (OPP 72-2 (EPA-guideline), static)

#### Aquatic plants:

EC<sub>50</sub> (72 h) 0.0299 mg/l (growth rate), *Selenastrum capricornutum* (OECD Guideline 201, static)

### **Persistence and degradability**

#### Assessment biodegradation and elimination (H<sub>2</sub>O):

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 (H<sub>2</sub>O):* Not readily biodegradable (by OECD criteria).

*Information on: Picolinafen*

*Assessment biodegradation and elimination (H<sub>2</sub>O):*

*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 Bioaccumulation potential:*

*Bioconcentration factor: 5, 100 (calculated)*

*May be accumulated in organisms.*

*Information on: picolinafen Bioaccumulation potential:*

*Bioconcentration factor: 580*

*Accumulation in organisms is not to be expected.*

### **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*

*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.*

*Information on: picolinafen*

*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 fulfilling 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.

## 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  
Hazard class: 9  
Packing group: III  
ID number: UN 3082  
Hazard label: 9, EHSM  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains PENDIMETHALIN)

### RID

Hazard class: 9  
Packing group: III  
ID number: UN 3082  
Hazard label: 9, EHSM  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains PENDIMETHALIN)

### Inland waterway transport

#### ADN

Hazard class: 9  
Packing group: III  
ID number: UN 3082  
Hazard label: 9, EHSM  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains PENDIMETHALIN)

### Sea transport

#### IMDG

Hazard class: 9  
Packing group: III  
ID number: UN 3082  
Hazard label: 9, EHSM  
Marine pollutant: YES  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains PENDIMETHALIN)

### Air transport

#### IATA/ICAO

Hazard class: 9  
Packing group: III  
ID number: UN 3082  
Hazard label: 9, EHSM  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains PENDIMETHALIN)

## 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.
43	May cause sensitization by skin contact.
50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
36/38	Irritating to eyes and skin.
Aquatic Acute	Hazardous to the aquatic environment – acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic
Skin Sens.	Skin sensitization
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

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: 1.0)