

# Katamaran® Turbo

A suspo-emulsion containing 200 g/l dimethenamid-p, 200 g/l metazachlor and 100 g/l quinmerac for use as a residual herbicide for the control of a range of broad leaved and grass weeds including cleavers, in winter oilseed rape.

A suspo-emulsion containing 200 g/l dimethenamid-p, 200 g/l metazachlor and 100 g/l quinmerac

## Risk and Safety Information

### Warning

**May cause an allergic skin reaction.**  
**Suspected of causing cancer.**  
**Very toxic to aquatic life with long lasting effects.**

Do not handle until all safety precautions have been read and understood.

Avoid breathing vapours.

Wear protective gloves and eye/face protection.

IF ON SKIN (or hair): Wash with plenty of soap and water.

IF exposed or concerned: Call a POISON CENTRE or doctor/physician.

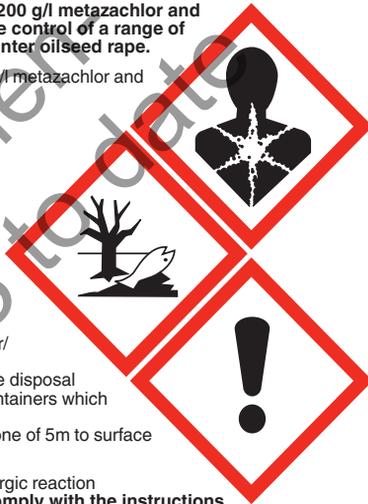
Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for triple rinsed empty containers which can be disposed of as non-hazardous waste.

To protect aquatic organisms respect an unsprayed buffer zone of 5m to surface water bodies.

Contains 2-methylisothiazol-3(2H)-one. May produce an allergic reaction

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

PCS No. : 04931



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

<b>Crops</b>	<b>Winter oilseed rape</b>
<b>MAXIMUM INDIVIDUAL DOSE:</b>	2.5 l product / ha
<b>MAXIMUM TOTAL DOSE:</b>	2.5 l product / ha / crop
<b>LATEST TIME OF APPLICATION:</b>	Before 7th true leaf stage (GS 17)

**Other specific restrictions:**

A maximum total dose of 1000 g metazachlor/hectare may be applied in a three-year period on the same field.

**READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. Follow the principles of Good Plant Protection Practice for using Plant Protection Products.**

**READ ALL PRECAUTIONS BEFORE USE**

**PCS No. : 04931**

**PRECAUTIONS**

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate or contaminated surfaces.

WASH CONCENTRATE from skin or eyes immediately.

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).

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 of 5m to surface water bodies.

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 safely.

**STORAGE**

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

KEEP OUT OF REACH OF CHILDREN.

DO NOT RE-USE CONTAINER FOR ANY 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.

## **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.

Katamaran Turbo is a residual herbicide that can be used on all varieties of winter oilseed rape for the control of a range of broad leaved and grass weeds.

## **Restrictions/Warnings**

For professional use only.

When Katamaran Turbo is applied pre emergence, it is important for crop safety to ensure physical separation of the herbicide from the seed. Ensure that the seed is well covered with soil to a depth of 15 mm. With direct drilled crops, harrow across the slits to cover the seed before spraying.

Do not disturb the soil after application.

Do not apply to broadcast crops until the crop has attained the two fully expanded cotyledon growth stage.

Katamaran Turbo is suitable for use on all soil types as defined by Soil Texture (85) System, except sands and very light soils and soils containing more than 10% organic matter.

Do not apply to stony soils; i.e. stones, flints or chalk readily visible on surface. On brashy and stony soils, Katamaran Turbo may cause some reduction in crop vigour and/or plant stand.

Do not apply to cloddy seedbeds. Seedbeds must have a fine, firm tilth for optimum weed control. Loose or cloddy seedbeds must be consolidated prior to application.

Do not apply when heavy rain is forecast and do not use on waterlogged soil or soils prone to waterlogging. Crop thinning or reductions in crop vigour can occur if there is very wet weather after application. Where a crop check has occurred, this normally grows out after a few weeks and yields are normally unaffected.

Soil moisture is required for effective weed control via root uptake. Residual control may be reduced under prolonged dry conditions.

Weeds germinating from depth may not be controlled.

Do not apply Katamaran Turbo to crops suffering from stress, which may be caused, for example, by pests, disease, waterlogging, poor seedbed conditions or previous chemical treatment.

Under frosty conditions a transient scorch may occur.

## Extreme care should be taken to avoid damage by drift onto plants outside the target area

Care should be taken to avoid overlap of spray swaths

To reduce the risk of movement of Katamaran Turbo to water:-

- On clay soils, create a fine, consolidated seedbed to slow the downward movement of water.
- Do not apply Katamaran Turbo to dry soil. Moist soils have fewer and smaller cracks.
- Do not apply Katamaran Turbo if heavy rain is forecast, wait until after the event.

### Weed control

Katamaran Turbo is taken up via cotyledons and roots and takes maximum affect before, or shortly after, weed emergence. Optimum results are obtained from applications made to fine, firm and moist seedbeds.

#### Susceptibility of weeds to single applications of Katamaran Turbo.

	Application pre-emergence of weed 2.5 l/ha Weed susceptibility rating	Application post-emergence of weed 2.5 l/ha Maximum susceptible growth stage of weed
Weed species	Rating	Rating
Black-grass	MS	1 true leaf (MR)
Chickweed, Common	S	2 true lvs
Cleavers	S	2 Whorls
Crane's-bill, Cut-leaved	S	Cotyledon
Crane's-bill, Round-leaved	S	Cotyledon
Crane's-bill, Small-flowered	S	Cotyledon
Dead-nettle, Red	S	Cotyledon (MS)
Fat Hen	S	Pre-em
Forget-me-not, Field	MS	Pre-em
Groundsel, Common	S	Pre-em
Mayweed, Scented	S	Pre-em
Pansy, Field	MR	Pre-em
Poppy, Common	S	Pre-em
Shepherd's-purse	S	2 true leaf (MS)
Sowthistle, Field	S	Pre-em
Speedwell, Common Field	S	2 true lvs
Speedwell, Ivy-leaved	S	Pre-em

S=Susceptible

MS=Moderately Susceptible

MR=Moderately Resistant

R=Resistant

Pre-em =Pre-emergence of weed

## Resistance Management

GROUP	4	15	HERBICIDES
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Strains of some annual grasses (e.g. black-grass, wild-oats, and Italian rye-grass) have developed resistance to herbicides, which may lead to poor control. A strategy for preventing and managing such resistance should be adopted. Guidelines have been produced by the Weed Resistance Action Group (WRAG) and copies are available from the HGCA, CPA, your distributor, crop adviser or product manufacturer.

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

### Key elements of the resistance management strategy for Katamaran Turbo:

- 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 grass weeds, always use Katamaran Turbo in sequence with other effective graminicides with different modes of action.
- Monitor fields regularly and investigate the reasons for any poor control.

## Crop Specific Information

Katamaran Turbo can be used on all varieties of winter oilseed rape.

### Time of application

Katamaran Turbo may be applied pre or post emergence of the crop but for optimum activity application must be pre emergence or early post-emergence of the weeds.

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

#### Pre-crop emergence applications:-

- should be made before the crop seed chits, which in optimum conditions may occur within 48 hours of drilling.
- should only be made on medium and heavy soils (as defined by the ADAS Soil Texture (85) System).

DO NOT USE Katamaran Turbo pre-crop emergence when any of the following conditions apply:-

- When crop has been broadcast.

- The crop seed has started to germinate (i.e. 48 hours after drilling)
- Seed is not covered with 15 mm of soil;
- When heavy rain is forecast;
- Dry, cloddy or open seedbeds;
- Late drilled crops – as a guide these are crops drilled later than the first week in September in Ireland;
- Stony soils, i.e. stones, flints or chalk are readily visible on the soil surface.

**Post crop emergence** applications can be made in the following circumstances:

- When the majority of the crop has two fully expanded cotyledons and up to the sixth true leaf growth stage (GS 16);
- On light, medium and heavy soils (as defined by the ADAS Soil Texture (85) System);
- When seedbed conditions are not ideal for pre-emergence use;
- When the seed is not covered with 15 mm of soil (as with broadcast crops);
- To light, stony, brashy or gravelly soils, particularly if heavy rainfall was forecast for the period following drilling;
- When late-drilled crops are to be treated.

### Rate of application

Apply 2.5 litres/hectare Katamaran Turbo in a recommend water volume of 200 litres per hectare.

### Qualified recommendation

Katamaran Turbo may be applied at 2.5 l/ha in 100 litres of water per hectare however this recommendation has not been supported by effectiveness or crop safety data.

### Following Crops

#### Following crops after normally harvested winter oilseed rape

Any crop can follow normally harvested winter oilseed rape treated with Katamaran Turbo. Ploughing is not essential before sowing a following cereal crop, but is required for all other crops.

#### Re-drilling due to crop failure

In the event of crop failure, the following crops may be sown after cultivating to a depth of at least 15 cm:

<b>Re-drilling the same autumn:</b>	Winter wheat (excluding durum).
<b>Re-drilling the following spring:</b>	Cereals (excluding durum wheat), spring oilseed rape, peas and field beans.

### Mixing and Application

#### Application

Apply as a MEDIUM spray, as defined by BCPC.

Katamaran Turbo should be applied in a recommended water volume of 200 litres/ hectare.

## Mixing

Never prepare more spray solution than is required.

Fill the spray tank three quarters full with water and start the agitation. To ensure thorough mixing of the product, invert the container several times before opening. Add the required quantity of Katamaran Turbo to the spray tank while re-circulating. Fill up the tank with water and continue agitation until spraying is completed.

On emptying the product 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.

## Sprayer cleaning

Wash sprayer thoroughly immediately after use, using clean water and following the sprayer cleaning guidance provided by the equipment manufacturer.

## COMPANY ADVISORY INFORMATION

This section provides additional advice on product use and is not part of the Product Label under the Plant Protection Product Regulation (EC) No 1107/2009.

### Water protection:

Drained fields, including temporary (mole-drained) – aim to apply before 1st October, cut off 15th October.

Applications after 1st October can be made as long as soil and seedbed conditions are good **and** drains are not flowing.

For further information, see [www.agricentre.basf.ie](http://www.agricentre.basf.ie)

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

With many products there is a general risk of resistance developing to the active ingredients. For this reason a change in activity cannot be ruled out. It is generally impossible to predict with certainty how resistance may develop because there are so many crop and use connected ways of influencing this. We therefore have to exclude liability for damage or loss attributable to any such resistance that may develop. To help minimise any loss in activity the BASF recommended rate should in all events be adhered to.

Numerous, particularly regional or regionally attributable, factors can influence the activity of the product. Examples include weather and soil conditions, crop plant varieties, crop rotation, treatment times, application amounts, admixture with other products, appearance of organisms resistant to active ingredients and spraying techniques. Under particular conditions a change in activity or damage to plants cannot be ruled out. The manufacturer or supplier is therefore unable to accept any liability in such circumstances. All goods supplied by us are of high grade and we believe them to be suitable, but as we cannot exercise control over their mixing or use or the weather conditions during and after application, which may affect the performance of the material, all conditions and warranties, statutory

or otherwise, as to the quality or fitness for any purpose of our goods are excluded and no responsibility will be accepted by us for any damage or injury whatsoever arising from their storage, handling, application or use; but nothing should be deemed to exclude or restrict any liability upon us which cannot be excluded or restricted under the provisions of any applicable law.

### **Additional Product Safety Information**

The following does not form part of the product label under the Plant Protection Products Regulation (EC) No 1107/2009.

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

### **Safety Data Sheet**

To access the Safety Data Sheet for this product scan the QR code or use the weblink below:



[agricentre.basf.ie/Katamaran-Turbo-IE/MSDS](http://agricentre.basf.ie/Katamaran-Turbo-IE/MSDS)

Alternatively, contact your supplier.