# **Katamaran®**

A residual herbicide for the control of a range of broad leaved and grass weeds, including cleavers, in winter oilseed rape



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

CROPS: Winter oilseed rape
MAXIMUM INDIVIDUAL DOSE: 2.0 I product/ha
MAXIMUM TOTAL DOSE: 2.0 I product/ha

LATEST TIME OF APPLICATION: Up to an including 8 true leaves (GS 18)

Other specific restriction:

A maximum total dose of not more than 1000 g metazachlor/hectare may be applied in a three-year period on the same field.

PCS No : 04935

**READ ALL PRECAUTIONS BEFORE USE** 

#### **PRECAUTIONS**

PROFESSIONAL USE ONLY

WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate or when handling contaminated surfaces

AVOID CONTACT WITH SKIN

WASH CONCENTRATE from skin or eyes immediately

DO NOT BREATHE SPRAY

WASH HANDS AND EXPOSED SKIN before meals and after work

Do not contaminate surface waters or ditches with chemical or used container. (Do not clean application equipment near surface water / Avoid contamination via drains from farmyards and roads).

KEEP LIVESTOCK out of treated areas until poisonous weeds such as ragwort have died and become unpalatable.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS

KEEP OUT OF REACH OF CHILDREN

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

RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of safely.

For application using tractor mounted or trailed sprayer only.

#### **STORAGE**

Store in a suitable pesticide store, keep dry and protect from frost.

#### **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 is a residual herbicide that can be used on all varieties of winter-sown oilseed rape for the control of cleavers and a range of other broad-leaved and grass weeds.

#### 1. Restrictions/Warnings

Katamaran 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.

Seedbeds should be moist, firm and free from clods. Loose or puffy seedbeds must be consolidated before treatment.

When Katamaran is applied pre emergence, it is important for crop safety to ensure physical separation of the herbicide from the seed. This is achieved by ensuring 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 use on broadcast crops until the crop has attained two fully expanded cotyledons.

On brashy and stony soils. Katamaran may cause some reduction in crop vigour and/or plant stand, due to the chemical moving down to the root zone too quickly.

Do not apply Katama an to soils with a compaction layer or to poorly drained soils, since damage can occur under waterloaged conditions.

A reduction in crop vigour, weed control and possibly plant stand may occur if excessive rain falls shortly after application, particularly on the lighter soils. Where crop growth has been checked, this normally grows out after a few weeks and yields are normally unaffected.

Care should be taken to avoid overlap of spray swaths.

Do not treat crops which are suffering from wilting, pests or diseases.

Under frosty conditions a transient scorch may occur.

Do not use Katamaran under frosty conditions in tank mixture with other products.

If Katamaran is applied onto a dry soil surface it will only be effective after rain has occurred.

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

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

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

Katamaran can be used on all varieties of winter oilseed rape

Katamaran may be applied pre or post emergence of the crop but for maximum activity application must be pre emergence of the weeds.

Pre crop emergence applications should be made before the crop seed chits, which in warm moist soils may occur within 48 hours of drilling. Seedbeds should be moist, firm and free from clods, but also see Restrictions/Warnings section. DO NOT USE PRE-EMERGENCE ON BROADCAST CROPS.

Post crop emergence applications can be made from when the majority of the crop has two fully expanded cotyledons until up to and including 8th true leaf stage (GS 18). The soil should be moist at application, or rainfall must occur should yafter application, but also see Restrictions/Warnings section.

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.

#### 2. Weed Control

Herbicidal activity is dependent upon root uptake.

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

	Katamaran 2.0 l/ha		
	Pre-emergence of weed Rating	Post-emergence of weed	
	Rating	Rating	Maximum susceptible growth stage
Amaranth, Common Annual Mercury Black-grass	S R S	- - -	Pre-em Pre-em Pre-em
Chamomile, Corn Chickweed, Common Cleavers	SSS	999	GS 11 GS 11 GS 12
Corn Spurrey Cornflower Cranesbill, Cut-leaved	S R MR	MS -	GS 12 Pre-em Pre-em
Cranesbill, Round-leaved Cranesbill, Small flowered Dead-nettle, Hen-bit	R R S		Pre-em Pre-em GS 12
Dead-nettle, Red Fat Hen Fool's Parsley	S MF	S MR S	GS 12 GS 11 GS 10
Forget-me-not, Field Fumitory, Common Groundsel, Common	S R S		Pre-em Pre-em Pre-em
Knotgrass Loose Silky Bent Mayweed, Scented	FI S S	- - S	Pre-em Pre-em GS 14
Mayweed, Scentless Meadowgrass, Annual Mustard, Hedge	SSR	S -	GS 14 Pre-em Pre-em
Nettle, Small Pansy, Field Parsley Piert	S R S	- - -	Pre-em Pre-em Pre-em
Penny-cress, Field Poison Hemlock Poppy, Common	R S S	- S S	Pre-em GS 11 GS12

	Rating	Rating	Maximum susceptible growth stage
Shepherd's-purse	S	S	GS 10
Sowthistles	S#	-	Pre-em
Speedwell, Common field	S	S	GS12
Speedwell, Ivy-leaved	S S S	S	GS10
Speedwell, Procumbent		-	Pre-em
Speedwell, Wall		-	Pre-em
Volunteer barley	R		Pre-em
Volunteer wheat	R		Pre-em

S = Susceptible:

MS = Moderately Susceptible;

MR = Moderately Resistant;

R = Resistant;

Pre-em = Pre-emergence of weed;

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. Quidelines 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:

- Always follow HRAC & 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 in sequence with other effective graminicides with different modes of action.
- Monitor fields regularly and investigate the reasons for any poor control.

#### 4. Mixing

#### SHAKE WELL BEFORE USE.

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 to the spray tank while re-circulating. Fill the tank with the remaining required amount of 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.

#### 5. Application

Apply 2.0 litres/hectare of Katamaran as a MEDIUM spray, as defined by BCPC.

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

Katamaran may be applied at 2.0 I/ha in 100 litres of water per hectare although efficacy and crop safety at this reduced volume has not been evaluated.

Care should be taken to avoid overlap of spray swaths

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

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

### 6. Following Crops

Any crop can follow normally harvested winter and spring-sown oilseed rape treated with Katamaran.

#### Re-drilling due to crop failure after autumn use

If in the autumn circumstances lead to the failure of winter oilseed rape treated with Katamaran the following crops may be re-drilled:-

#### Winter crops

After ploughing to 20 cm depth, or equivalent inversion cultivation, winter oilseed rape can be sown after a one month interval and winter cereals may be sown after a two month interval.

#### Spring crops

Following a failed crop in the autumn, and after cultivating to a minimum depth of 15 cm, spring wheat, spring barley, spring oats, spring oilseed rape, potatoes, sugar beet, maize, peas, beans, sunflowers and linseed may be re-drilled in the spring.

#### Re-drilling due to crop failure after spring use

After ploughing to 20 cm depth, or equivalent inversion cultivation, oilseed rape may be sown after a one month interval and maize and pea may be sown after a two month interval.

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

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.

## **Safety Data Sheet**

