

**KASKAD<sup>®</sup>** MAPP 19761

Contains triflusaluron-methyl (500 g/kg) formulated as a water dispersible granule formulation (WG).  
KASKAD is a herbicide for selective use in sugar beet and fodder beet crops.



**Important Information  
FOR USE ONLY AS A PROFESSIONAL HERBICIDE**

<i>Crops</i>	<i>Maximum individual dose (g product per hectare)</i>	<i>Maximum number of treatments</i>	<i>Latest time of application</i>
<b>Sugar beet</b>	30 g	4 per crop	Before the leaves of the crop meet between the rows
<b>Fodder beet</b>	30 g	4 per crop	Before the leaves of the crop meet between the rows

**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.**

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



**Warning**

**Very toxic to aquatic life with long lasting effects**

Keep out of reach of children

Collect spillage

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

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

**FOR 24 HOUR EMERGENCY INFORMATION CONTACT NHS 111**

132-01KAS120GUKL

Production date / Batch number: see packaging

**APPROVAL HOLDER AND MARKETING**

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The  
Voluntary  
Initiative

This label is  
compliant  
with the CPA  
Voluntary  
Initiative  
Guidance.

Net content: **120g**

## **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 product
- However, engineering controls may replace personal, protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.
- WHEN USING DO NOT EAT, DRINK OR SMOKE.
- Wash concentrate/dust from skin or eyes immediately
- Do not breathe dust. Avoid working in spray mist
- Wash hands and exposed skin before eating, drinking or smoking and after work.

### **Environmental protection**

- Use appropriate containment to avoid environmental contamination.
- DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5m of the top of the bank of a static or flowing waterbody, 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.
- DO NOT ALLOW DIRECT SPRAY from hand-held sprayers to fall within 1m of the top of a bank of a static or flowing waterbody. Aim 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 OUT OF REACH OF CHILDREN.
- KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.
- Protect from frost
- Keep in original container, tightly closed, in a safe place
- Empty container completely and dispose of safely
- Dispose of contents / container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste
- DO NOT RE-USE CONTAINER FOR ANY OTHER PURPOSE.

### **Resistance strategy**

When herbicides with the same mode of action are used repeatedly on the same field over a number of years, it is possible that selection of naturally occurring resistant weed species may take place. These can propagate and become dominant. A weed species is resistant to a herbicide if it survives a treatment correctly carried out at the recommended dose and application timing.

If a weed species is resistant to one sulfonylurea product, it is likely it will be resistant to all sulfonylurea herbicides. Development of resistance can be avoided by alternating herbicides with different modes of action.

KASKAD contains triflurosulfuron-methyl which is an ALS inhibitor and therefore belongs to HRAC/WSSA 2 (HRAC 'Group B').

Use only as part of a resistance management strategy that includes cultural methods of control and does not use ALS inhibitors as the sole chemical method of weed control.

**Restrictions:**

- Do not spray in windy weather and avoid drift onto non-target crops/areas.
- KASKAD must not be applied to any crop suffering from stress as a result of drought, waterlogging, low temperature, pest or disease attack, nutrient or lime deficiency or other factors reducing crop growth
- Avoid periods of substantial day to night temperature changes or when frost is expected.
- Do not spray if there is high light intensity or temperatures above 21°C
- Not for use on seed crops

**Crop failure**

In the event of crop failure for any reason, sow only spring barley, linseed or beet within four months of application of KASKAD, provided this agrees with the recommendations of any partner product.

**FOLLOWING CROPS**

Only winter cereals should be drilled in the same calendar year as a crop treated with KASKAD. In the spring following treatment, any crop may be drilled.

**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.**

KASKAD is a selective systemic herbicide, absorbed by the foliage, with rapid translocation to the meristematic tissues. KASKAD is a post-emergence sulfonylurea herbicide that effectively controls a range of annual broadleaved weeds in sugar and fodder beet crops. Weeds must be emerged and growing actively when sprayed. Up to four applications may be made to any individual crop, as part of a planned weed control programme.

## Application

### Sugar beet, fodder beet (as part of a weed control programme)

Timing: Before the leaves of the crop meet between the rows

Dose: 30 g product/ha + partners with phenmedipham or phenmedipham + metamitron

Water volume: 80 –150 L/ha, fine spray quality as defined by BCPC.

Application interval: 7-14 days

## Weeds Controlled

The following weeds are susceptible to KASKAD partner products. The susceptibility ratings of weeds in the following table refer to good spray cover and good growing conditions, with weed size of up to 2 true leaves.

Botanical Name	Common name	KASKAD + 1.1 L/ha phenmedipham <sup>1</sup>	KASKAD + 1.1 L/ha phenmedipham + 0.5 kg/ha metamitron <sup>2</sup>
<i>Fallopia convolvulus</i>	Black Bindweed	S	S
<i>Sinapis arvensis</i>	Charlock	S	S

Botanical Name	Common name	KASKAD + 1.1 L/ha phenmedipham <sup>1</sup>	KASKAD + 1.1 L/ha phenmedipham + 0.5 kg/ha metamitron <sup>2</sup>
<i>Galium aparine</i>	Cleavers	S	S
<i>Stellaria media</i>	Common chickweed	S	S
<i>Fumaria officinalis</i>	Common fumitory	S	S
<i>Chenopodium album</i>	Fat-hen	S	S
<i>Viola arvensis</i>	Field pansy	MS (requires 2 L/ha phenmedipham)	S
<i>Aethusa cynapium</i>	Fools Parsley	S	S
<i>Polygonum aviculare</i>	Knotgrass	S	S
<i>Lamium purpureum.</i>	Red dead-nettle	S	S

Botanical Name	Common name	KASKAD + 1.1 L/ha phenmedipham <sup>1</sup>	KASKAD + 1.1 L/ha phenmedipham + 0.5 kg/ha met amitron <sup>2</sup>
<i>Polygonum persicaria</i>	Redshank	S	S
<i>Tripleurospermum inodorum</i>	Scentsless mayweed	S	S
<i>Urtica urens</i>	Small Nettle	S	S
<i>Brassica napus</i>	Winter oilseed rape (volunteer)	S	S

MS= Moderately susceptible

<sup>1</sup> = Containing 160 g/L phenmedipham

S= Fully susceptible

<sup>2</sup> = Containing 700 g/kg met amitron

#### PREPARATION OF THE SPRAY SOLUTION AND APPLICATION

Quarter fill the spray tank with clean water and begin agitation. Add the required quantity of KASKAD and the tank mix partner(s) to the tank and complete filling. Continue agitation until spraying is completed.

Apply by means of suitable spray equipment, either as an overall spray or as a band spray. Ensure that the sprayer is correctly calibrated to apply the recommended water volume and spray quality and that the boom height and nozzles are adjusted to give even coverage of the target weeds. Use the tank the same day as mixing. For mixing instructions with phenmedipham as a tank-mix partner, see Compatibility Section.

Extreme care should be taken to avoid damage by drift to broad-leaved plants outside the target area or onto ponds, waterways or ditches or land intended for cropping. Spraying equipment should not be drained or flushed onto land planted with or intended for planting with trees or crops other than sugar beet or fodder beet.

#### Water volume

Apply in a water volume of 80 to 150 litres water per hectare in a fine quality (BCPC definition) spray, as good spray coverage is essential for effective weed control.

#### COMPATIBILITY

Products should only be tank-mixed if each product can be applied within the label recommendations for its use. Add KASKAD to the spray tank first and ensure it is fully dispersed before adding the partner product(s). If a partner product contains phenmedipham, follow the manufacturer's recommendations for mixing that product before adding KASKAD.

KASKAD can be tank mixed with a number of other herbicides to broaden the spectrum of weeds controlled. These other herbicides may have crop, timing, varietal and other restrictions that are different to those of KASKAD. Tank mixes should only be applied within the label recommendations of every product in the mix.

KASKAD should be applied in tank mix with other products only if any requirements or restrictions on the other product label do not conflict with the requirements or restrictions for KASKAD.

Tank mixes should not be allowed to stand in the tank and agitation should be maintained at all times.

When KASKAD tank-mixes are used in sequence with graminicides, the minimum time interval should be observed between applications in accordance with the manufacturer's recommendations

KASKAD contains triflurosulfuron methyl, a sulfonamide, which is an ALS Inhibitor. Do not apply KASKAD in sequence or in tank mixture with any other product containing ALS herbicides.

#### **SOIL TYPE**

KASKAD can be used on all soil types. Weed control may be reduced if the soil is very dry at application.

#### **SPRAY TANK CLEANING**

To avoid possible damage to crops other than sugar and fodder beet, immediately after spraying KASKAD thoroughly clean all spray equipment (including inside and outside of the lid) using ALL CLEAR® EXTRA cleaner according the label instructions. Alternatively, use the following procedure:

- 1) Immediately after spraying KASKAD drain the tank completely. Any contamination on the outside of the spraying equipment should be removed by washing with water and a commercially available cleaning agent appropriate for removal of sulfonamide products.
- 2) Rinse the inside of tank with clean water and flush through boom and hoses using at least one-tenth of the spray tank volume for a minimum of 10 minutes. Drain tank completely.
- 3) Half fill the tank with clean water and add a commercially available cleaning agent appropriate for removal of sulfonamide products at the recommended rate. Agitate and then flush the boom and hoses with the cleaning solution. Top up with water making sure the tank is completely full and then allow to stand

for 15 minutes with agitation. Again, flush the boom and hoses and drain tank completely.

- 4) Nozzles and filters should be removed/pulled apart and cleaned separately with water and a commercially available cleaning agent appropriate for removal of sulfonylurea products.
- 5) Rinse the tank with clean water and flush through boom and hoses using at least one-tenth of the spray tank volume. Drain tank completely.
- 6) Dispose of washings safely (follow the Code of Practice for the Safe Use of Pesticides on Farms and Holdings). Do not spray onto sensitive crop or land intended for cropping with sensitive crop.

**Note:** If it is not possible to drain the tank completely, step 3 must be repeated before going to step 4. Follow washout instructions and only use recommended tank-mixtures. Failure to thoroughly clean your sprayer after use can result in damage to sensitive crops sprayed later. KASKAD is non-corrosive to equipment, non-flammable and non-volatile.

#### **CONDITIONS OF SUPPLY**

All goods supplied by the company are of good quality and we believe them to be fit for purpose. However, as we cannot exercise control over their storage, handling,

mixing or use or the weather conditions before, during or after application, which may affect the performance of the goods, 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 or re-sellers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods.