

STARFIRE®

MAPP 18179

STARFIRE is a residual herbicide for use in winter and spring cereals for the control of black grass, annual meadow grass and some broad-leaved weeds.

A suspension concentrate containing 500 g/litre flufenacet.

GROUP 15 HERBICIDE

HERBICIDE

H

Net content

5L

READ CAREFULLY
BEFORE USE

Production date / Batch number:
see packaging

**For advice on medical
emergencies, fires, spillages
or chemical hazards ONLY -
phone 0870 190 6777**

For technical and non-emergency calls
phone 0044 (0)845 373 0305

Authorisation Holder:
Mitsui AgriScience International
S.A./N.V., Avenue de Terveuren 270, 1150
Woluwe-Saint-Pierre, Brussels, Belgium
® Registered trademark of
Mitsui AgriScience International SA/NV

STARFIRE

A suspension concentrate containing
500 g/litre flufenacet.

WARNING

H302 HARMFUL IF SWALLOWED
H317 MAY CAUSE AN ALLERGIC
SKIN REACTION

H373 MAY CAUSE DAMAGE
TO ORGANS THROUGH
PROLONGED OR REPEATED
EXPOSURE

H410 VERY TOXIC TO AQUATIC LIFE
WITH LONG LASTING EFFECTS

P264 Wash hands, forearms and
face thoroughly after handling
P273 Avoid release to
the environment

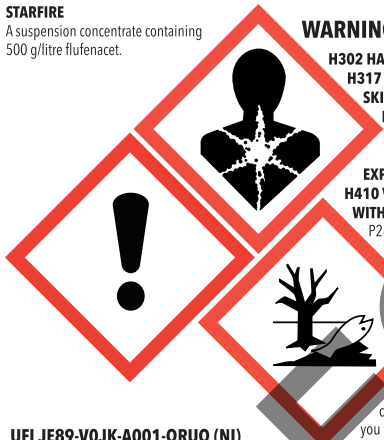
P280 Wear protective
gloves/protective
clothing/eye protection/
face protection

P301 + P312 IF SWALLOWED:
call a POISON CENTRE or doctor if
you feel unwell

P302 + P352 IF ON
SKIN: Wash with plenty
of soap and water
P501 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.

*Contains flufenacet and
1,2-benzisothiazolin-
3-one - may produce an
allergic reaction.*

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



UFI JE89-V0JK-A001-QRUQ (N1)

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Cambridgeshire CB21 6AD

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COMPATIBILITY

When tank-mixing with other products use a minimum water volume of 200 litres/ha. Any use restrictions of products in the mixture should be observed.

The following products have been shown to be compatible when used in mixture with STARFIRE:

*Hurricane® SC MAPP 16027

*Hurricane is a registered trademark of Adama Agricultural Solutions UK Ltd

STARFIRE may be tank-mixed with a variety of plant protection products providing that the application timing is correct for both STARFIRE and the partner(s) in the mixture. For further information on the approval status of mixture partners, consult your local Certis Belchim B.V. representative.

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.

RESISTANCE MANAGEMENT

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 and copies are available from the AHDB Cereals and Oilseeds, CropLife UK, your distributor, crop adviser or product manufacturer. Populations of black-grass and Italian rye-grass with high levels of enhanced metabolism resistance will not be fully controlled. Always follow the WRAG guidelines for preventing and managing herbicide resistant weeds.

Maximise the use of cultural control measures wherever possible (e.g. crop rotation 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 STARFIRE 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 if high levels of resistance are suspected and to reduce the risk of resistance development.

Investigate the reasons for any poor control by inspecting fields regularly.

FOLLOWING CROPS

After normal harvest

There are no restrictions on following crops after the use of STARFIRE. Plough to at least 150 mm before planting all following crops except for wheat, barley, peas and potatoes.

In the event of crop failure

Plough to at least 150 mm. The following crops may then be sown; wheat, barley, peas and potatoes.

Please refer to the following crop recommendations of any other tank-mix or sequence partner products.

Company Advisory Information

This section is not part of the Product Label under Regulation 1107/2009. It provides additional advice on product use at the discretion of the applicant.

Certis Belchim B.V. cannot recommend a mixture with fluprussulfuron containing products. Combining flufenacet with fluprussulfuron is covered by patents held by Bayer CropScience. Certis Belchim B.V. is clear that Bayer's permission must be obtained before mixing STARFIRE with any product containing fluprussulfuron.

CONDITIONS OF SUPPLY The Seller warrants that the goods shall at the time of delivery to the Buyer conform to the Seller's standard specification but all other conditions and warranties, whether express or implied by statute or custom of the trade or otherwise and whether as to condition, quality, performance, merchantability, fitness for any purpose or otherwise, are expressly excluded and, subject as aforesaid, the Seller shall be under no liability whatsoever, in contract or in tort, for or in respect of any loss or damage whatsoever resulting from or arising out of the goods or supply or use thereof, whether caused by the negligence of the Seller or otherwise. The Seller shall be under no liability in respect of the warranty given above unless the Buyer allows the Seller reasonable opportunity of inspecting the goods where practicable. A consumer's statutory rights are not affected.

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

WEBLINK to specific data sheet on manufacturer's website:



https://certisbelchim.co.uk/pdf/MSDS/Starfire_MSDS.pdf

Alternatively, contact your supplier.

STARFIRE®

HERBICIDE

IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL HERBICIDE

Crops/Situations	Maximum individual dose (Litres product/ha)	Maximum total dose (Litres product/ha)	Latest time of application
Wheat (winter), barley (winter)	0.48	0.48	Before third tiller detectable stage (GS 23)
Wheat (spring), barley (spring)	0.36	0.36	Before third tiller detectable stage (GS 23)

Other specific restrictions

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 CRD's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded in written form and kept available for inspection for three years.

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 (COSHH) REGULATIONS MAY APPLY TO THE USE OF THIS PRODUCT AT WORK.

SAFETY PRECAUTIONS

Operator Protection

DO NOT APPLY BY HAND HELD EQUIPMENT. WHEN USING, DO NOT EAT DRINK OR SMOKE. WASH HANDS/EXPOSED SKIN before eating and drinking/smoking/after work.

IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.

IF SWALLOWED, SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL.

IF YOU FEEL UNWELL, seek medical advice immediately (show the label where possible). WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves.

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.

However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

Environmental Protection

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). DO NOT ALLOW DIRECT SPRAY TO AVOID ENVIRONMENTAL CONTAMINATION.

To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies in line with LERAP requirements.

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 Environmental Risk Assessment for Pesticides (LERAP) permits a narrower buffer

zone or within 1 m of the top of a ditch which is dry at the time of application. Aim spray away from water.

LERAP
B

This product qualifies for inclusion within the Local Environmental 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 CRD'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

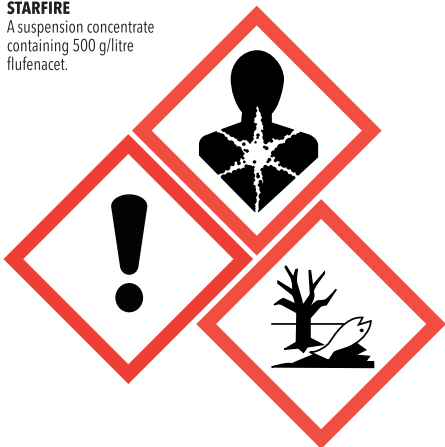
KEEP OUT OF THE REACH OF CHILDREN. KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

STORE IN ORIGINAL CONTAINER, tightly closed, in a safe place. WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely. THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF IN A SAFE WAY. DO NOT RE-USE CONTAINER FOR ANY PURPOSE.

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WARNING

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H373 MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE

H410 VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS

P260 Do not breathe mist/spray.

P264 Wash hands, forearms and face thoroughly after handling

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301 + P312 IF SWALLOWED; call a POISON CENTRE or doctor if you feel unwell.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P501 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.

Contains flufenacet and 1,2-benzisothiazolin-3-one. May produce an allergic reaction.

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

Spring Cereals (Wheat, Barley)

STARFIRE controls (*Poa Annua*, Annual Meadow Grass) in spring cereals.

Rate of Application

For Annual meadow grass, apply at a rate of 0.36 L product per hectare.

Application timing: Pre-emergence BBCH 00-09 or Post-emergence BBCH 10-23.

Water Volume: Ensure good coverage using 200 – 400 L water per hectare.

Spray interval: Not Applicable (1 application only).

RESTRICTIONS

Soil moisture must be present for STARFIRE to work. Best results will be obtained if rainfall occurs within 7 days of application. Residual control may be reduced under prolonged dry conditions, on soils with a high kd factor, where organic matter exceeds 6%, and in soils where the ash content is high. Do not disturb the soil after STARFIRE has been applied as this will result in reduced weed control.

Do not use in windy conditions in order to avoid the risk of drift onto other crops.

Avoid spraying within 6 metres of the field boundary to reduce effects on non-target insects or other arthropods.

Avoid spraying during periods of prolonged or severe drought or frost.

Where there is very wet weather before and after application and particularly where soils become waterlogged, reduction in crop vigour which may result in yield reductions may occur.

Soil Types

STARFIRE may be used on all mineral soil types. Do not use on soils with more than 10% organic matter. On stony or gravelly soils, crop damage could occur, particularly if heavy rain follows treatment. Control of black grass may be reduced on soils with a high clay content.

Do not use on waterlogged soils or soils prone to waterlogging.

Seedbed preparation

Trash and straw should be incorporated evenly to a depth of 15 cm during seedbed preparation. Seedbed must have a fine, firm till. Consolidate loose or cloddy seedbeds before use.

Following pre-emergence applications, unconsolidated clods, if they are larger than 7.5 cm in diameter may reduce the level of weed control and cause seed to be inadequately covered, which could result in crop damage.

Crop Safety

Extreme caution must be taken to avoid spray drift onto non target crops.

Do not use on crops suffering from stress, which may be caused for example by pests, disease, water logging, poor seedbed preparation or previous chemical treatment.

Seed should be covered with a minimum of 3.2 cm of settled soil. Shallow drilled crops should be treated post-emergence.

Do not soil incorporate. Do not spray undersown crops.

CROP SPECIFIC INFORMATION

CEREALS

STARFIRE can be used on all varieties of Winter/Spring Wheat and Winter/Spring Barley.

Apply from the pre-emergence to before third tiller stage (GS 23) of the crop.

WEEDS CONTROLLED

Susceptibility of weeds to single application of STARFIRE.

Weeds are controlled both pre-emergence and post-emergence up to the size specified.

Winter Cereals

Weeds	Pre-emergence Rate (0.48 litres/ha)	Post-emergence Rate (0.48 litres/ha)
Black-grass	MR	MR (up to 2 leaves)
Common Field Speedwell	-	S (up to 2 leaves)
Common Chickweed	R	R (up to 5cm)
Weeds	Pre-emergence Rate (0.36 litres/ha)	Post-emergence Rate (0.36 litres/ha)
Annual Meadow Grass	S	S (up to 3 leaves)
Loose Silky Bent	S	S (up to 2 leaves)

Where black-grass is present always use STARFIRE in tank-mixture with another product containing a different mode of action and which is effective against black-grass.

Spring cereals

Weeds	Pre-emergence Rate (0.36 litres/ha)	Post-emergence Rate (0.36 litres/ha)
Annual Meadow Grass	MR	MR (up to 4 leaves)

MIXING AND APPLICATION

Half-fill the spray tank and start the agitation. Shake the product several times before opening to ensure thorough mixing and add the required amount of STARFIRE to the spray tank while recirculating. Fill up the tank with water and continue agitation until spraying is complete. When using tank-mix partners, carefully follow the instructions on the partner product.

Each product should be added separately to the spray tank and fully dispersed before the addition of any further product.

Ensure that all packaging is rinsed thoroughly by using an integrated pressure rinsing device or manually rinsing three times. Add washings to the spray tank at the time of filling and dispose of container safely.

When applying the product, ensure even spray cover of the target using a MEDIUM quality spray as defined by BCPC.

Apply STARFIRE in a minimum of 200 L/ha of water.

For tractor-mounted or trailed sprayers a travel speed of 6-8 km/h is advised to avoid the risk of uneven cover due to excessive boom whip and bounce.

The slower speed is recommended where the target is in a thick crop or weed cover and the ground conditions are rough.

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.

STARFIRE is a herbicide with residual activity for the control of black-grass, annual meadow grass and some broad-leaved weeds in winter/ spring wheat and winter/ spring barley.

Winter Cereals (Wheat, Barley)

STARFIRE controls (*Alopecurus myosuroides*, Blackgrass), (*Poa Annua*, Annual Meadow Grass), (*Apera spica-venti*, Loose Silky Bent) and some broad leaved weeds in winter cereals.

Rate of Application

For Blackgrass control, apply at a rate of 0.48 L product per hectare. For Annual meadow grass and Loose Silky Bent, apply at a rate of 0.36 L product per hectare.

Application timing: Pre-emergence BBCH 00-09 or Post-emergence BBCH 10-23.

Water Volume: Ensure good coverage using 200 – 400 L water per hectare.

Spray interval: Not Applicable (1 application only).