FIRESTORM®

CERTIS

MAPP 17631 | Batch No.: Date of Manufacture: - See container

Contains 400 g/L flufenacet and 100 g/L diflufenican as a suspension concentrate.
Firestorm is a herbicide mixture for control of annual grass and broad-leaved weeds pre- and post-emergence in winter wheat, spring wheat, winter barley and spring barley.

HERBICIDE H

GROUP 12 | 15 HERBICIDE

FIRESTORM
A suspension concentrate formulation containing 400 g/L flufenacet + 100 g/L diflufenican

WARNING

HARMFUL IF SWALLOWED.
MAY CAUSE DAMAGE TO ORGANS (NERVOUS SYSTEM) THROUGH PROLONGED OR REPEATED EXPOSURE IF SWALLOWED.
VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.
Wear protective eye protection/face protection.
If exposed or concerned, please call a POISON CENTRE or doctor/physician.
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 of its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

Contains flufenacet – may produce an allergic reaction.

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

MAPP 17631

The Voluntary Initiative

This label is compliant with the CPA Voluntary Initiative Guidance

DIRECTIONS FOR USE: Refer to leaflet attached to the bottle.

440306

Marketed by: Certis Europe B.V., Suite 5, 3 Riverside, Granta Park, Great Abington, Cambridgeshire, CB21 6AD
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For technical and non-emergency calls – phone 0044 (0)845 373 0305
For advice on medical emergencies, fires, spillages or chemical hazards ONLY – phone 0870 190 6777
Approval Holder: Life Scientific Limited, Block 4, Belfield Office Park, Beech Hill Road, Dublin 4, Ireland
(Registered company number: 237489)

life scientific FIRST TO MARKET

5 LITRES

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

Material Safety Data Sheet

To access the Safety Data Sheet for this product, scan the QR code or use the web link below.

https://cutt.ly/rvjN7v

Alternatively, contact your supplier

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.

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IMPORTANT INFORMATION

FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL HERBICIDE

Crops and situations	Maximum individual dose (Litres product/ha)	Maximum number of treatments	Latest time of application
Wheat (winter)	Until 31 March in the year of harvest: 0.6	2 (second application not to exceed 0.3 L/ha)	Before third tiller stage (GS 23)
Barley (winter)	After 31 March in the year of harvest: 0.6	2 (second application not to exceed 0.3 L/ha)	Before fourth tiller stage (GS 24)
Wheat (spring)	0.3	1	Before 4 true leaf stage (before GS 14)
Barley (spring)	0.3	1	Pre-emergence

Other specific restrictions

Sequences on winter wheat and barley: Where the total dose exceeds 0.6 L/ha, the first application of any sequence must be made before GS 13 of the crop and a minimum interval of 6 weeks must be observed between applications.

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 (COSHH) CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS MAY APPLY TO THE USE OF THIS PRODUCT AT WORK.

SAFETY PRECAUTIONS

Operator Protection

Engineering control of operator exposure must be used where reasonably practical in addition to the following personal protective equipment: WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate or handling contaminated surfaces.

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

WHEN USING DO NOT EAT, DRINK OR SMOKE.

IF YOU FEEL UNWELL, seek medical advice immediately and show this container or label where possible.

Environmental Protection

DO NOT CONTAMINATE SURFACE WATER OR DITCHES with 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 to surface water bodies in line with LERAP requirements.

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

LERAP B

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 waterbody, unless a Local Environment 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.

This product qualifies for inclusion in the Local Environment Risk Assessment for Pesticides Scheme (LERAPS). Before each application from a horizontal boom sprayer, either a LERAP must be carried out in accordance with the CRD's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for inspection for three years.

Storage and Disposal

KEEP OUT OF REACH OF CHILDREN.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.

KEEP IN ORIGINAL CONTAINER tightly closed in a safe place.

WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely.

DO NOT RE-USE CONTAINER for any purpose.

440307

DIRECTIONS FOR USE

NOTE: IMPORTANT: This information is authorised 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.

FIRESTORM® is a contact and residual herbicide mixture for broad-leaved and annual grass weed control in winter wheat, spring wheat and winter barley. It may be used on all varieties of wheat and barley and can be applied pre or post-emergence of weeds and crop. Effective weed control requires that all surface trash and straw is buried during seedbed preparation and when applied pre-emergence of the crop the seed must be covered by at least 32 mm of settled soil. After application the soil surface should remain undisturbed so do not harrow or roll and do not incorporate the herbicide. Loose or cloddy seedbeds must be consolidated otherwise crop damage may result due to inadequate seed cover. Other points to consider for safe and effective use include:

- Avoid treatment of crops suffering from stress caused by pest or disease attack, drought or water-logging, grazing, nutrient deficiency, compacted soils or any other factor that reduces crop growth.
- Do not treat crops grown on waterlogged soils or on soil prone to waterlogging.
- Do not treat undersown crops or those that will be undersown.
- Do not use on sands, very light soils (ADAS 85 classification) or on very stony or gravelly soils due to the risk of crop injury.
- Do not use on soils with more than 10% organic matter content.
- Do not treat broadcast seed or shallow drilled crops since the seed may be damaged.

If very wet weather or sharp frosts occur before or after application, some crops may suffer from a loss of vigour or colour, particularly on light free draining soils or where soils become waterlogged. These effects are usually transitory in nature and the final yield of the crop is not normally affected.

TIMING

Winter wheat: Apply pre- or post-emergence up to and including second tiller stage (GS 22).

Winter barley: Apply pre- or post-emergence up to and including third tiller stage (GS 23).

An application of up to 0.6 L/ha may be made at any time before 31st March in the year of harvest. A single application of 0.3 L/ha that is not part of a sequence may be made at any time up to and including GS 22 (winter wheat) or GS 23 (winter barley) of the crop.

Where the total dose exceeds 0.6 L/ha, the first application of any sequence must be made before GS 13 of the crop and a minimum of 6 weeks must elapse between treatments. The second application of any sequence must not exceed 0.3 L/ha. Where the total dose is between 0.3 – 0.6 L/ha and application is made after GS 12 of the crop, the latest time of application is 31st March.

Spring wheat (all varieties): A single application of 0.3L/ha may be made pre or post- emergence, up to and including third true leaf stage (GS 13).

Spring barley (all varieties): A single application of 0.3 L/ha may be made pre-emergence of the crop.

Application: A dose of 0.3 L/ha or 0.6 L/ha FIRESTORM should be applied as a MEDIUM spray as defined by BCPC in a water volume of 200-400 L/ha. Avoid overlapping spray swaths. To prevent damage, care must be taken to avoid drift onto neighbouring crops.

Weed Control: The speed of activity is dependent upon the prevailing conditions in the treated field. Some soil moisture is required to activate the herbicide and light rain within 7 days of application gives the best control. If the soil is dry then the residual activity will be limited and cold weather will delay the appearance of herbicide effects. In the presence of adequate soil moisture Firestorm will control the following weeds:

Weed species	Pre-emergence activity	Post-emergence activity
Annual meadow-grass	S	S up to 3 leaves & 1 tiller (GS 13, 21)
Black-grass	MS	MS up to 3 leaves (GS 13) but before tillering has commenced (GS 21)
Common chickweed	S	S up to early branching (5 cm) stage
Common field speedwell	S	S up to 4 leaf stage (GS 14)
Field pansy	S	S up to 4 leaf stage (GS 14)
Field forget-me-not	S	-
Groundsel	S	-
Ivy-leaved speedwell	MR	S up to 2 leaf stage (GS 12)
Mayweeds	S	S up to 2 leaf stage (GS 12)
Red dead-nettle	S	-
Cleavers	MR	MR up to 1 whorl stage (GS 11)[1]

[1] Useful suppression may be achieved but where cleaver populations are significant a cleaver-specific follow-up treatment is likely to be necessary.
S = Susceptible; MS = Moderately Susceptible; MR = Moderately Resistant; R = Resistant; - = no information.

A subsequent sequential application of 0.3 L/ha FIRESTORM may provide a useful contribution to the residual control of black-grass and annual meadow-grass in winter wheat and winter barley, particularly in situations where black-grass or annual meadow-grass germination is protracted and emergence after application is anticipated, and when used as part of a grass weed management programme.

WEED SUSCEPTIBILITY AT 0.3 L/ha in winter wheat, winter barley, spring wheat and spring barley

Annual meadow grass	Susceptible pre and post-emergence up to and including GS 12 (2 leaf stage).

Note: broad-leaved weeds growing from rootstocks and perennial grasses will not be controlled.

RESISTANCE MANAGEMENT

FIRESTORM is classified as having the HRAC mode of action code 12 (previously Group F1) and 15 (previously Group K3). Weeds which are subject to repeated exposure to the same modes of action are at risk of developing resistance to these herbicides. When devising a herbicide programme, incorporate herbicides with different modes of action within crop programmes and throughout crop rotations and, where possible, include physical methods of weed control.

Strains of 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 HGCA, CPA, your distributor, crop adviser or product manufacturer. To reduce the risk of the development of resistance:

- Do not use as a stand-alone treatment for black-grass control but use in sequence or tank-mix with other herbicides that are effective against black-grass and which work by a different mode of action.
- Consider your strategy across the whole rotation in treated fields and do not rely on FIRESTORM for grass or broad-leaved weed control in successive crops. Use effective herbicides with an alternative mode of action.
- Investigate any patches of poor control and if no obvious cause is apparent, consider appropriate resistance testing on surviving plants.

MIXING and SPRAYING

Shake the container well before use. Before spraying it is important to check all hoses, filters and nozzles, and to ensure that the sprayer is clean and correctly set to give an even application at the correct volume. Half-fill the spray tank with clean water. Begin agitation and add the required quantity of FIRESTORM. Add the remainder of the water and agitate the mixture thoroughly before and during spraying. Do not leave the sprayer standing for long periods when filled with the spray solution. After use, wash out the sprayer thoroughly with a minimum of two rinses using a wetting agent or a proprietary tank cleaner.

A water volume of 200-400 L/ha is recommended with the higher volumes within this range used where weed and crop cover is dense to ensure good coverage of the target weeds

FOLLOWING CROPS after normal harvest or crop failure

Following a cereal crop treated with FIRESTORM the soil should be ploughed or cultivated to at least 15 cm before planting oilseed rape, field beans, carrots, onions, sugar beet, peas or edible Brassicae to disperse any residues throughout the soil. Wheat, barley and potatoes can be planted with no special cultivations.

In the event of crop failure, the soil should be ploughed or cultivated to at least 15 cm and only wheat, barley and potatoes can be sown. A period of at least 12 weeks should elapse after application before wheat or barley are sown.

Where products containing diflufenican are applied to successive cereal crops, the level of diflufenican can build up in the soil. Ploughing with complete inversion in the furrow is essential before any non-cereal crop other than potatoes is planted. Particularly sensitive crops such as onions, leeks, other alliums and clover may still suffer some damage from diflufenican residues. Where the land is to be rented out to growers of these crops it is advisable to avoid use of diflufenican for a few years before the field is hired out.