



Glyfos® Dakar Pro

A foliar-applied herbicide for the control of most annual and perennial grasses and broad-leaved weeds
A water-soluble granule containing 68% w/w glyphosate

Product Registration No. MAPP 13147

HERBICIDE

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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 practicable in addition to the following personal protective equipment.
WEAR SUITABLE PROTECTIVE GLOVES when handling the granules and when handling contaminated surfaces.
WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND RUBBER BOOTS when using hand-held sprayers, hand-held rotary atomisers, weed wiper equipment or spot gun equipment.
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 (except when used as directed). Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads.

Storage and Disposal

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS. KEEP IN ORIGINAL CONTAINER tightly closed, in a safe place.
KEEP OUT OF REACH OF CHILDREN. EMPTY CONTAINER COMPLETELY and dispose of safely.

Other Specific Restrictions

When spraying through rotary atomisers, the spray droplet spectrum must be of a minimum Volume Median Diameter (VMD) of 200 microns.

Weed wipers may be used in any recommended crop where the wiper of chemical does not touch the growing crop. The maximum concentrations used must not exceed the following:
Weed-wiper 'mini' - 1kg: 5:5 litres dilution with water
Other wipers - 1kg: 3:8 litres dilution with water

For stump applications, the maximum concentration must not exceed 500 gms of product made up to a total volume of 1 litre with water (i.e. a 10% solution).

The maximum concentration of active ingredient in treated water must not exceed 0.06 ppm or such lower concentration as the appropriate regulatory body may require.

Users must consult the appropriate water regulatory body (Environment Agency / Scottish Environment Protection Agency) before using the product near water and must obtain their agreement before using this product to control aquatic weeds.

Do not use glyphosate repeatedly over several years in the same field as selection of resistant biotypes can take place and may become prevalent.

No extra surfactant should be added if the product is to be applied using a rotary atomizer sprayer.

IMPORTANT INFORMATION

Product Identifier: Glyphosate 68 SG
Safety data sheet available on request.

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 of use.

FOR USE ONLY AS AN INDUSTRIAL / FORESTRY / AQUATIC HERBICIDE

Crops: Maximum Individual Dose Kg product/hectare

Natural surfaces not intended to bear vegetation, permeable surfaces overlying soil, hard surfaces: 3.0

Enclosed waters, land immediately adjacent to aquatic areas: 3.0 (See 'Other Specific Restrictions')

Forestry (weed control): 5.0
(i) Weed control

(ii) Stump application: See 'Other Specific Restrictions'

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 PLANT PROTECTION PRODUCTS

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.

Warnings: DO NOT STIRE, MIX OR APPLY THIS PRODUCT FROM AN UNLINED OR GALVANISED STEEL TANK. DO NOT leave mixtures in spray tanks over long periods. Ensure that spray tanks are always THOROUGHLY ventilated.

Apply this product carefully. Ensure spraying takes place only when weeds are actively growing (normally March to October) and is confined only to visible weeds including those in the 30 cm swath covering the kerb edge and road gully - do not overspray drains.

General Information

Glyfos® Dakar Pro is an effective herbicide when used as directed against most annual and perennial grasses and broad-leaved weeds.

Glyfos® Dakar Pro is translocated from the treated leaves throughout the plant and to underground roots, rhizomes and stolons. Symptoms such as gradual wilting and yellowing of foliage are rapidly visible in grass weeds but are slower to appear in broadleaved weeds.

Cultivation and drilling can take place 6 hours after application to control annual broad-leaved weeds, 24 hours after spraying annual grasses and 5 days after spraying perennial weeds. Allow minimum 7 days if weather conditions are not favourable and before planting of trees, ornamentals, vegetables etc.

Restrictions

1. Weather Conditions
For best results a rain-free period of 6 hours (and preferably 24 hours) is required after application of Glyfos® Dakar Pro.

Extreme care should be taken to avoid spray drift as this can severely damage or destroy neighbouring crops or plants.

2. Following Crops
Glyfos® Dakar Pro is inactivated on contact with soil by binding to soil particles. All crops may be planted or sown at the intervals specified following treatment. A slight growth retardation following germination may be seen if seeds are sown by direct drilling amongst decaying vegetation, roots, rhizomes or stolons.

3. Weed control
It is important when treating perennial weeds that there is full emergence of healthy green foliage and active growth at the time of application.

The efficacy of this product is increased if the leaf surface for absorption is large. Common couch grass is particularly susceptible at the 4-5 leaf stage, where there is about 20-25 cm of new growth, when tillering and new rhizome growth is starting.

Most perennial broad-leaved weeds are particularly susceptible to treatment when they are actively growing and shortly before flowering.

Annual weeds should be growing actively at the time of treatment. Grasses should have at least 5 cm of growth. Broad-leaved weeds should have at least two sizeable true leaves.

Under conditions of drought, flooding, frost or high temperatures, disease or insect damage or weeds heavily covered with dust, where plant growth is restricted the efficacy of this product will be reduced.

Strains of some annual weeds (e.g. black-grass, wild-oats, and Italian ryegrass) have developed resistance to herbicides which may lead to poor control. A strategy for preventing and managing such resistance should be adopted. This should include integrating herbicides with a programme of cultural control measures. Guidelines have been produced by the Weed Resistance Action Group and copies are available from the HCCA, CPA, your distributor, crop adviser or product manufacturer.

Do not use glyphosate repeatedly over several years in the same field as selection of resistant biotypes can take place and may become prevalent.

No extra surfactant should be added if the product is to be applied using a rotary atomizer sprayer.

NATURAL SURFACES NOT INTENDED TO BEAR VEGETATION, PERMEABLE SURFACES OVERLYING SOIL, HARD SURFACES

Do not use glyphosate repeatedly over several years in the same field as selection of resistant biotypes can take place and may become prevalent.

No extra surfactant should be added if the product is to be applied using a rotary atomizer sprayer.

FORESTRY

Glyfos® Dakar Pro should be applied post-planting in forestry at a maximum rate of 5 kg/ha.

Do not use glyphosate repeatedly over several years in the same field as selection of resistant biotypes can take place and may become prevalent.

No extra surfactant should be added if the product is to be applied using a rotary atomizer sprayer.

AQUATIC EMERGENT WEEDS

Do not use glyphosate repeatedly over several years in the same field as selection of resistant biotypes can take place and may become prevalent.

No extra surfactant should be added if the product is to be applied using a rotary atomizer sprayer.

AQUATIC FLOATING WEEDS

Do not use glyphosate repeatedly over several years in the same field as selection of resistant biotypes can take place and may become prevalent.

No extra surfactant should be added if the product is to be applied using a rotary atomizer sprayer.

SPRAY APPLICATION TECHNIQUES AND EQUIPMENT

Glyfos® Dakar Pro is a water-soluble granule formulation with free-flowing, dust-free granules that dissolve rapidly in water. Application techniques include tractor-mounted sprayers, knapsack sprayers, rotary atomisers and specialised spraying equipment such as weed wiper applicators, where indicated.

1. Hydraulic sprayers mounted on tractors

Use any equipment which can apply at 80-250 litres/ha as a "Medium" or "Coarse" spray (as defined by BCPC) with a pressure of 1.5-2.5 bar and 80° or 120° nozzles.

For most applications, 200-250 litres of water/ha should be used. Spray pressure (typically 1.5-2.5 bar) should be adjusted and related to tractor speed, water volume and nozzle type.

When using low volume nozzles, spray pressure and tractor speed should be adjusted. A typical speed range would be 4-9 km/hour.

All spray equipment should be calibrated before use, particularly if nozzles have been changed. Check at least one nozzle from each side of the boom. Before starting spraying, check that the boom is level, the boom height is correct for the intended application, and all the nozzles on the boom are aimed at the correct angle to the forward direction of the tractor.

2. Rotary Atomisers

Select one of the following:
CDA Boom and CDA Lightweight, Microdrop, Girojet, Dual-Option sprayer, Hydraship.

Applications should be made using a water volume of 20 l/ha at a speed of 4-9 km/hour and a droplet setting of 200-300 microns (equivalent to the BCPC definitions of "Medium" or "Coarse"). The spray droplet spectrum produced by the atomiser must have a minimum Volume Median Diameter (VMD) of 200 microns. The equipment should be correctly calibrated according to the manufacturer's instructions.

Area of use	Target weeds	Extent of weed infestation	Application rate in kg/ha	Water volume	Application details
Overall spraying post planting in dormant season	Grass weeds including Black Bent, Common Couch, Creeping Soft-grass, False Oat-grass, Cock's foot, Purple Moor-grass, Wavy Hair-grass, Yorkshire-fog	All levels - with optimum timing and conditions	1.5	Hydraulic sprayers 80-250 l/ha or hand held equipment (see Spray Application Techniques and Equipment)	DO NOT OVERALL SPRAY trees grown for ornamental purposes including Christmas trees. When fully dormant and the leader growth has hardened has hardened it is safe over-spray the following species: Corsican, Lodgepole and Scots Pines, Norway and Sitka Spruce, Lawson Cypress, Western Red Cedar, Douglas and Nobel Firs may be sprayed when fully dormant and when leader growth has hardened, but NOT in the spring. It is a good idea to test crop safety by spraying a small area before conducting widespread overall treatment in following years. Bracken should be treated after frost tips are cured but not before senescence.
Stump application	Prevention of coppicing and regrowth from stumps	Deciduous trees	1% solution (50 g in 5 litre) of Glyfos® Dakar Pro in water	Clearing saw fitted with snaw attachments or knapsack or sprayer operated at low pressure or spot gun with solid stream nozzle or paint brush	Apply to saturate freshly cut stumps. Treat stumps within 1 week of felling from Nov-March.
		Coniferous trees	10% solution (500 g in 5 litre) of Glyfos® Dakar Pro in water		

* Droplet size should be between 200-300 microns.

ENCLOSED WATERS, LAND IMMEDIATELY ADJACENT TO AQUATIC AREAS

Glyfos® Dakar Pro may be used against aquatic weeds in and along waterways and irrigation ditches at a maximum rate of 5 kg/ha.

AQUATIC EMERGENT WEEDS

Do not use glyphosate repeatedly over several years in the same field as selection of resistant biotypes can take place and may become prevalent.

AQUATIC FLOATING WEEDS

Do not use glyphosate repeatedly over several years in the same field as selection of resistant biotypes can take place and may become prevalent.

3. Directed Application with a Knapsack Sprayer

Knapsack sprayers (e.g. Cooper Pigeon Classic / Series 2000) may be used in set-aside land and pre-cultivation. Spray volumes normally range from 200-300 litres/ha but may be reduced to 100-150 litres/ha if low volume nozzles have been fitted. This is with the exception of application in forestry at 5 kg/ha where the minimum water volume is 200 litres/ha. Spray quality should be "Medium" or "Coarse" as defined by BCPC.

An application rate of 2 kg/ha and a water volume of 200 litres/ha represents a 1% concentration of Glyfos® Dakar Pro. A knapsack sprayer with a total capacity of 10 litres thus requires 500 g of Glyfos® Dakar in 50 litres of water.

A 10-litre sprayer will cover an area of 500 sq. metres at a 1 metre/second walking pace and a 1-metre wide spray swath.

4. Spot Gun - Stump treatments

The applicator must be fitted with narrow angle cone nozzles, TG3 or TG5 or solid stream nozzle tips (Delavan LF 6.0 or Spraying Systems 600).

Set the gun to deliver 2.5 ml per squeeze and select the concentration of Glyfos® Dakar Pro according to usage recommendations. A dose of 2.5 ml should be applied for each 5 cm diameter of tree stump.

5. Spraying in or near water

The maximum concentration of active ingredient in treated water must not exceed 0.06 ppm or such lower concentration as the appropriate regulatory body may require.

Users must consult the appropriate water regulatory body (Environment Agency / Scottish Environment Protection Agency) before using the product near water and must obtain their agreement before using this product to control aquatic weeds.

If Glyfos® Dakar Pro is used according to these recommendations, water subjected to spray drift may immediately be used immediately for irrigation.

Filling spray tank

1) Fill the sprayer with 2/3 of the required quantity of water.
2) Switch-on the agitation and re-circulation.
3) Add the granules progressively and when completed add the remaining water. Continue agitation for at least 5 minutes.

Induction hopper

When using a chemical induction bowl or hopper, open the rinsing/flush system. Next open the valve for emptying the bowl into the main tank. Add Glyfos® Dakar Pro with the rinsing/flushing system on. Continue until the required amount of Glyfos® Dakar Pro has been introduced.

Sprayer Hygiene

It is essential to thoroughly clean out spray tanks, pumps, pipelines and nozzle or disc assemblies with a recommended detergent cleaner between applying this product and other pesticides, to avoid contamination by pesticide residues.

PROTECT FROM FROST

Store in a cool dry place.

This label is compliant with the CPA Voluntary Initiative Guidance.

Not for reformulation or repackaging.

Glyfos® Dakar Pro is a registered trademark and product of Cheminova A/S.



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