

Solo D

(MAPP 14667)

Selective contact and residual herbicide in spring barley, winter wheat, winter barley, winter rye and triticale for the control of annual dicotyledons and grasses.



SIPCAM U.K.

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Suspension Concentrate (SC) containing 500 g/l diflufenican.

Selective contact and residual herbicide in spring barley, winter wheat, winter barley, winter rye and triticale for the control of annual dicotyledons and grasses.



DANGEROUS FOR THE ENVIRONMENT

VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF IN A SAFE WAY.

AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS / SAFETY DATA SHEETS.

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

IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL HERBICIDE

Crops	Maximum individual dose	Maximum number of treatments	Latest time of application
Winter wheat & winter barley	0.25 litre/ha	One per crop	Before 1st node detectable stage (BBCH 31)
Spring barley	0.125 litre/ha	One per crop	Before 1st node detectable stage (BBCH 31)
Winter rye & triticale	0.2 litre/ha	One per crop	Pre-emergence

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 PSD'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.

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.

READ THE LABEL BEFORE YOU BUY – USE PESTICIDES SAFELY

SIPCAM UK CONDITIONS OF SUPPLY

All goods supplied by us are of high grade and suitable for use. Since we cannot control the conditions of storage, handling or use or the weather conditions before or after application which may affect the performance of the goods, all conditions and warranties, statutory or otherwise, as to the quality of fitness of our goods are excluded. We cannot therefore accept any responsibility for any failure in performance, damage or injury whatsoever, arising from storage, handling, application or use.

SOLO-D - 10/09

Marketed by: Sipcaml UK Limited, 3 The Barn, 27 Kneesworth Street, Royston, Herts SG8 5AB.
Tel: 01763 212100. Fax: 01763 212101.

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.'

Solo-D is a suspension concentrate formulation, which is used as a selective contact and residual herbicide in winter cereals and spring barley to control annual dicotyledons and grasses. Under favourable growing conditions, the residual activity can last for up to 8 weeks after application. The level of effective residual control may be reduced under dry conditions, when poor coverage of the soil surface is achieved, when the crop is planted in non-wetting sand or where soils have a high content of clay or organic matter.

This product is taken up by the shoots of germinating seeds and seedlings. Susceptible weeds germinate but show immediate chlorosis followed by a mauve-pink discolouration. The chlorosis spreads with the aerial growth and the plants become necrotic and die back.

After application, some transient crop discolouration may occur, which will have no effect on the subsequent growth.

Solo-D can be used pre-emergence in winter wheat, winter and spring barley, winter rye and triticale, or post-emergence in spring barley, winter wheat and winter barley.

Restrictions

Maximum number of applications: one per crop.

Do not apply when heavy rain is expected within 4 hours or on crops suffering from stress, frost, nutrient deficiency, excessively moist or dry conditions, pest or disease attack or pre-emergence applications.

Do not use on other cereals, broadcast or undersown crops or crops to be undersown.

Do not apply to soils with more than 10% organic matter.

Use on Sands (soil texture [85] system) or very stony or gravely soils may result in crop damage.

Do not harrow after application nor roll autumn-treated crops until spring.

Avoid drift onto neighbouring crops.

Weed control

Solo-D controls the following weeds:

Weed	Susceptibility at 0.2 or 0.25 litre/ha, pre-emergence	Susceptibility at 0.125 litre/ha, post-emergence up to the following leaf stage	Susceptibility at 0.25 litre/ha, post-emergence up to the following leaf stage
Black bindweed			1 TL
Common Chickweed		2 TL	4 TL
Common field speedwell		2 TL	6 TL
Corn spurrey	S (0.2 litre/ha)		
Field forget-me-not	S (0.2 litre/ha)		
Field mouse ear	S (0.2 litre/ha)		
Field poppy	S (0.25 litre/ha)		
Flixweed	S (0.25 litre/ha)		
Henbit dead-nettle	S (0.25 litre/ha)		
Knotgrass			2 TL
Nipplewort			1 TL

Weed	Susceptibility at 0.2 or 0.25 litre/ha, pre-emergence	Susceptibility at 0.125 litre/ha, post-emergence up to the following leaf stage	Susceptibility at 0.25 litre/ha, post-emergence up to the following leaf stage
Perennial sowthistle		1 TL	1 TL
Prickly sowthistle		1 TL	1 TL
Red dead-nettle	S (0.25 litre/ha)	2 TL	6 TL
Shepherd's purse		2 TL	4 TL
Smooth sowthistle		1 TL	1 TL
Treacle mustard	S (0.25 litre/ha)		
Volunteer oilseed rape	S (0.25 litre/ha)		
Wild pansy			1 TL
Wild radish	S (0.25 litre/ha)		

S = Susceptible (> 85% effect) (at specified dose)

TL = True leaves

Crop specific information

The application can be made before crop emergence (BBCH 01-08), or post-crop emergence from the 3 true leaf stage (BBCH 13) until before 1st node detectable stage (BBCH 31).

Pre-emergence application (winter wheat, winter and spring barley, rye and triticale)

Solo-D should be applied shortly after sowing. Seed beds should be fine and firm and should not contain clods greater than fist size. For optimal efficiency, it is advised to apply under moist conditions at or after application and rainfall during the first weeks after application.

On weak plants, a colouring of the first leaf can occur. This will have no impact on yield. Drill crop to normal depth (25 mm) and ensure seed well covered.

Only the following named varieties of rye and triticale may be treated:

Winter rye: 'Amino' · 'Ashill Pearl' · 'Dominant' · 'Lovaszpatonai' · 'Rheidol' · 'Tetragorzow'.

Triticale: 'Aquarius' · 'Bokolo' · 'Clercal' · 'Newton' · 'Salvo' · 'Torrs'.

Dose: 0.2 litre/ha.

Post-emergence application (winter wheat, winter and spring barley)

When applied after emergence of the crop, the application should be made from the 3-leaf stage of the plant.

Dose: Winter wheat and winter barley: 0.25 litre/ha.
Spring barley: 0.125 litre/ha

Following crops

In the event of crop failure, winter wheat may be redrilled immediately after normal cultivation and winter barley may be sown after ploughing. Fields must be ploughed to a depth of 15 cm and 20 weeks must elapse before sowing spring crops of wheat, barley, oilseed rape, peas, field beans, sugar beet, potatoes, carrots, edible brassicas or onions.

After normal harvest autumn cereals can be drilled after ploughing. Thorough mixing of the soil must take place before drilling field beans, leaf brassicae or winter oilseed rape. For sugar beet seed crops and winter onions complete inversion of the furrow slice is essential.

Successive treatments of any products containing diflufenican can lead to soil build-up and inversion ploughing must precede sowing and following non-cereal crop. Even where ploughing occurs some crops e.g. onion, leek, other allium crops and clover may be damaged. As a precaution, users who rent out their land to growers should not use diflufenican containing products in successive years before renting out the land.

Mixing and spraying

Before spraying ensure the sprayer is clean and in good working order. Half fill the sprayer with clean water and begin to agitate. Add the required quantity of Solo-D and complete filling. Continue to agitate during spraying.

Apply in 200-300 litres/ha water as a medium spray (BCPC category). Increase the water volume where weed infestation is heavy or the crop cover is dense. Complete coverage of weeds is essential.

Wash out the sprayer thoroughly after use using a recognised tank cleaner or wetting agent.

Tank cleaning

After using Solo-D empty the tank completely and drain the whole system. Thoroughly wash inside the tank with a pressure hose. Quarter fill the tank with clean water and circulate through the pump, line, hoses and nozzles, then drain. Quarter fill the tank again, add a suitable detergent and circulate through the system for at least 15 minutes. Drain, remove filters and nozzles and clean separately. Rinse inside the tank thoroughly using a pressure hose and flush system with clean water.

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 concentrate.

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 HANDS/EXPOSED SKIN before eating and drinking/smoking/after work.

Environmental protection

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 PSD'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.

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 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.

EXTREMELY DANGEROUS TO FISH OR OTHER AQUATIC LIFE. Do not contaminate surface waters or ditches with chemical or used container.

Storage and disposal

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

KEEP OUT OF THE REACH OF CHILDREN.

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

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

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF SUBSTANCE, PREPARATION AND COMPANY

Product name – Solo D
MAPP – 14667
Use – Herbicide
Formulation type – Suspension concentrate
Supplier – Sipcam UK Limited, 3 The Barn, 27 Kneesworth Street, Royston, Herts SG8 5AB
Emergency phone no – Office 01763 212100

2. COMPOSITION/INFORMATION ON INGREDIENTS

Common name – Diflufenican
CAS/EC no – 83164-33-4
Hazard Symbol – N
R phrases – R51/53
Concⁿ – 42%

3. HAZARDS IDENTIFICATION

Critical Hazard to environment – Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

General advice – Remove from source of exposure. Remove all contaminated clothing and wash affected area.
Inhalation – Remove the individual from exposure to this product and keep well ventilated with fresh air. Keep at rest. If necessary and if breathing stops, give artificial respiration. Seek medical attention.
Skin contact – Remove contaminated clothing immediately. Wash affected area thoroughly with soap and water. Rinse with more water. Seek medical attention.
Eye contact – Rinse immediately with plenty of water for at least 15 minutes and then seek medical attention.
Ingestion – If swallowed, seek medical attention immediately.
Treatment – No Specific antidote. Treat Symptomatically and Supportive.
Consult a Poisons Centre such as;
0171 635 9191 (National Poisons Information Service - London)
(AUTHORISED MEDICAL PRACTITIONERS ONLY)

5. FIRE FIGHTING MEASURES

Suitable extinguishing media – Fight fire with CO₂, dry chemical powder, foam or water spray (in preference to water jet).
Specific hazards – Combustion may generate toxic fumes containing HF, HCl₃, HCN and NO₂.
Protective equipment – Wear self-contained breathing apparatus (SCBA).
Specific Methods – Cool containers with spray. Contain fire-fighting water, bunding if necessary with sand, earth, or other inert material.

6. ACCIDENTAL RELEASE MEASURES

Personal Protective Equipment – Wear protective coveralls, neoprene gloves, rubber boots and faceshield or goggles, covering as much of the body as possible (see section 8).
Environmental Protection – DANGEROUS TO FISH OR AQUATIC LIFE. Do not contaminate surface water or ditches with chemical or used container.
Harmful to aquatic organisms may cause long term adverse effects in the aquatic environment.
Inform local water plc immediately if spillage enters drains and the National Rivers Authority (England and Wales) or River Purification Boards (Scotland), if it enters surface or ground waters.
Clean up Methods – Contain or absorb spillage with sand or earth. Sweep up carefully and shovel sweepings into marked bags or drums. Dispose of through a reputable local waste disposal contractor.

7. HANDLING AND STORAGE

Handling
Use Suitable Personal Protective Clothing.
Avoid fumes – work in a well ventilated area.
Storage
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
Protect from frost.
Keep away from heat sources and direct sunlight.
Other
WHEN USING, DO NOT EAT, DRINK OR SMOKE.
WASH SPLASHES from skin or eyes immediately.
AVOID ALL CONTACT BY MOUTH, WITH SKIN AND EYES.
DO NOT BREATHE SPRAY.
WASH HANDS AND EXPOSED SKIN before eating, drinking or smoking and after work.
KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.
KEEP OUT OF REACH OF CHILDREN.

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

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Occupational Exposure Standard (OES) – No specific standard
Engineering measures – If possible use a cab fitted with a forced air filtration unit with a pesticide filter when spraying.
Personal Protective Equipment
WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), PROTECTIVE GLOVES* AND FACE PROTECTION (FACESHIELD) when handling the concentrate. (*neoprene or nitrile at least 0.6mm thick).
WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

State – Liquid
Density – 1.2
Colour – White
Odour – Light, characteristic
Boiling point – 100°C
Explosive properties – Not explosive
Flammability – Non Flammable
Solubility – 0.05 ppm @ 20°C (Diflufenican)

10. REACTIVITY AND STABILITY

Stability – Stable under normal ambient conditions. Non-flammable and non-corrosive.
Condition to avoid – High temperatures and Direct Sunlight.

11. TOXICOLOGICAL INFORMATION

Acute oral LD₅₀ (rat) – >2,000 mg/kg
Acute dermal LD₅₀ (rat) – >2,000 mg/kg
Skin Irritation – Non irritant
Eye irritation – Non irritant
Sensitisation – Product is not sensitising. Contains atrazine may cause an allergic reaction.
Carcinogenicity – Quickly absorbed, metabolised and secreted without significant retention in tissues.
Mutagenicity – Negative
Teratogenicity – Negative

12. ECOLOGICAL INFORMATION

Mobility – (ai) Koc39 - 155.
Ecotoxicity – (ai) Rainbow Trout LC₅₀ >100 mg/l (96hr)
(ai) Daphnia magna LC₅₀ >100 mg/l (48hr)
(ai) Algae LC₅₀ 1.78 ug/l (72hr)
(ai) Bees oral/contact LD₅₀ >100 ug / bee

13. DISPOSAL

Do not empty into drains. This material and its container must be disposed of in a safe way.
Contact Local Authority (Environmental Health Department) or a reputable waste disposal company for collection and disposal of unwanted product or containers.
For further guidance on the disposal of containers, surplus spray solution, tank washings and concentrate, refer to Part 5 (Disposal of Pesticide Waste) of the MAFF/HSE booklet "Pesticides: Code of Practice for the Safe Use of Pesticides on Farms and Holdings".

14. TRANSPORT

UN Number – 3082
Packaging Group – III
Marine Pollutant –
ADR/RID Classification – 9, 11@
IMDG/IMO Classification – Not classified
Proper shipping name – ENVIRONMENTALLY HAZARDOUS SUBSTANCE. LIQUID N.O.S (contains diflufenican).

15. REGULATORY INFORMATION

Hazard Symbol – N Dangerous for the environment.
Risk Phrases (R) – R51/53 Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.
Safety Phrases (S) – S35 This material and its container should be disposed of in a safe way.
S36/37 Wear suitable protective clothing and gloves.

16. OTHER INFORMATION

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.
Packaging – Container: 1 litre HDPE.
Outer: 10 x 1 litre double wall carton.
Approval number – MAPP 14667