



# Lorate®

## PCS No. 05591

Version dated 17th March 2017

A soluble granule formulation containing 200 g/kg metsulfuron-methyl, a sulfonylurea, for spring weed control in wheat, oats, barley, triticale and linseed, and for use on green cover on land temporarily removed from production e.g. set-aside.

### **SAFETY PRECAUTIONS**

#### **Environmental Protection**

Use appropriate containment to avoid environmental contamination

Do not contaminate water with this 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 of 5m to surface water bodies.

#### **Storage and Disposal**

This material and its container must be disposed of safely

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Contents: XXX grams

Manufactured in the EU

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FOR PROFESSIONAL USE ONLY

**RISK AND SAFETY INFORMATION****LORATE****HERBICIDE**

Contains 200g/kg metsulfuron-methyl

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

Collect spillage.

Keep out of reach of children

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

**TO AVOID RISKS TO HUMAN HEALTH AND THE ENVIRONMENT, COMPLY WITH THE INSTRUCTIONS FOR USE****PCS No. 05591****IMPORTANT INFORMATION****FOR USE ONLY AS A PROFESSIONAL HERBICIDE**

Crops: Wheat, oats, barley, rye, triticale, linseed and green cover on land temporarily removed from production e.g. set-aside

Maximum individual dose: 30 g product per hectare

Maximum total dose: 30 g product per hectare

Latest time of application

Wheat, oats, barley and triticale: flag leaf sheath extending stage. (GS39)

Linseed: Before flower buds visible (GS 51).

Green cover on land temporarily removed from production: Before 1 August in year of application

Method of application: Tractor mounted / trailed sprayer

**OTHER SPECIFIC RESTRICTIONS:**

This product must only be applied from 1 February in the year of harvest until the specified latest time of application.

LORATE must only be applied to green cover on land temporarily removed from production where a full green cover is established. Treated green cover on land temporarily removed from production must not be grazed by livestock or harvested for human consumption or used for animal bedding.

LORATE must only be applied to green cover on land temporarily removed from production where the cover crop is predominantly (i.e. sufficient to maintain reasonable cover) grassland, wheat, barley, oats or triticale.

**READ ALL SAFETY PRECAUTIONS BEFORE USE**

------(Start of label leaflet)-----

## **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.**

### **Restrictions**

- LORATE, alone or in tank-mix, must not be applied to any crop suffering from stress as a result of drought, waterlogging, low temperatures, pest or disease attack, nutrient or lime deficiency or other factors reducing crop growth.
- Do not use LORATE on cereal crops undersown with grasses, clover or other legumes or any other broad-leaved crop.
- When using tank-mixtures take care not to overlap spray swaths.
- LORATE should not be applied within 7 days of rolling any crop.
- Do not use LORATE in tank-mix on oats, rye, triticale and linseed. On Linseed allow at least 7 days between LORATE and other treatments (10 days if crop is growing poorly or under stress).
- Contract agents should be consulted before using on crops grown for seed.
- Due to the high level of activity of the herbicide, special care must be taken to avoid damage by drift onto broad-leaved plants outside the target area, or onto ponds, waterways or ditches. Thorough cleansing of equipment is also very important – see ‘Spray-tank cleanout’
- Refer to ‘Compatibility’ for details on use of LORATE with other ‘ALS inhibiting’ herbicides

### **Weed Control**

LORATE is a highly active herbicide with foliar and root activity against a wide range of broad-leaved weeds. It is most effective when applied to small actively growing weeds. As larger weeds often become less susceptible, it is important to note the size of each weed species at the time of application. Good spray cover of the weeds must be obtained. Weed control may be reduced when soil conditions are very dry. Nevertheless, with adequate soil moisture, susceptible weeds germinating soon after treatment will be controlled.

### **Weed Resistance**

When herbicides with the same mode of action are used repeatedly over several years in the same field, selection of resistant biotypes can take place. These can propagate and may become dominating. A weed species is considered resistant to a herbicide if it survives a correctly-applied treatment at the recommended dose. Development of resistance within a weed species can be avoided or delayed by sequencing or tank-mixing with suitable products having a different mode of action. A strategy for preventing and managing resistance should be adopted. The Herbicide Weed Resistance Action Committee (HRAC) also produced guidelines that may be consulted for additional information

### **Susceptible Weeds**

The susceptibility ratings of weeds in the following table refer to good spray cover and good growing conditions.

Weed Species	Plants up to 2 expanded true leaves	Plants up to 6 expanded true leaves	Plants up to 15 cm across/high
Black-bindweed	MS	MS	--
Charlock	S	S	S
Chickweed, Common	S	S	S
Cranes-Bill, Dove's Foot	S	S	--
Dead-nettle, Red	S	S	MS
Docks	S	S	S
Fat-hen	S	R	R
Field-speedwell, Common	S	S	MS
Forget-me-not, Field	S	MS	MS
Fool's Parsley	S	S	MS
Hemp-nettle, Common	S	S	S
Knotgrass	S	MS	MS
Mayweeds	S	S	S
Nettle, Small	S	S	--
Pale Persicaria	S	S	S
Pansy, Field	S	MS	MS
Parsley-piert	S	S	S
Poppy, Common	S	S	MS
Redshank	S	S	S
Shepherd's-purse	S	S	S
Sowthistle, Smooth	S	--	--
Volunteer Rape	S	S	--
Volunteer Sugar Beet	S	S	S

S = Susceptible MS= Moderately Susceptible MR = Moderately Resistant R = Resistant

Charlock, Common Chickweed, Red Dead-nettle, Mayweeds, Shepherd's-purse and Volunteer Rape will all be controlled by a dose of 25g/ha at the timings listed above.

### Soil

LORATE can be used on all soil types.

### Volume and application

Apply in 150 - 400 litres of water per hectare, using suitable equipment to give good spray cover of the weeds. The higher volume is recommended when crops are thick or weed growth dense. When applying LORATE, care should be taken not to overlap spray swaths.

### Mixing

Before using LORATE, make sure that the spraying equipment is clean. LORATE mixes easily with water, but the following mixing procedure should be followed: Quarter fill the spray tank with water, start the agitation and add the required quantity of LORATE directly to the tank without prior creaming. Continue agitation while topping up the tank and while spraying.

### Compatibility

To widen the spectrum of activity and improve the control of some weeds, LORATE may be applied with other herbicides, provided each product can be applied within the label recommendations for its use. Always add LORATE to the spray tank first when using in tank-mix.

Additional recommendations may be approved since label printing. Please consult your DuPont or your distributor for latest details on compatibilities.

## **CROPS**

### **■ Cereals**

LORATE can be used on all winter and spring varieties of wheat, oats, barley, rye and triticale. LORATE must only be applied from 1 February, from the 3 leaf stage on spring crops and the beginning of tillering on winter sown crops, until the flag leaf extending stage (GS 39)

#### **Dose**

Apply LORATE at 30 g/ha when used alone or in tank-mix with other herbicides.

#### **Following Crops**

Only cereals, oilseed rape, field beans or grass may be sown in the same calendar year to succeed a cereal crop treated with LORATE.

### **■ Linseed**

LORATE should be applied to actively growing linseed (all varieties) from the growth stage "first pair of true leaves unfolded", up to 25 cm high or before flower buds visible (GS 51), whichever comes first. Most annual weeds are best controlled by the earliest application possible.

#### **Dose**

Apply LORATE at 30 g/ha.

#### **Following Crops**

Only cereals should be planted within 16 months of applying LORATE to a linseed crop. In the event of crop failure for any reason, sow only wheat within 3 months of the application of LORATE.

### **■ Green cover on land temporarily removed from production e.g. set-aside**

LORATE may be applied to areas temporarily removed from production where the green cover is made up predominantly (i.e. sufficient to maintain reasonable cover) of grassland, wheat, barley, oats or triticale. Where established grass species are the main cover crop, some discoloration and stunting may occur. LORATE is selective to seedling cereals from the three-leaf stage (GS 13) but should not be used on seedling grasses.

#### **Dose and timing**

Apply LORATE at 30 g/ha before 1 August in year of application.

Only one application of a sulfonylurea-containing product must be made per calendar year to green cover on land temporarily removed from production.

### **Following crops**

Sow only cereals within 16 months of applying LORATE on green cover on land temporarily removed from production e.g. set-aside.

### **General**

LORATE effectively controls broad-leaved docks, with best control achieved from application three weeks before or after cutting. Many other broad-leaved plants occurring in the "Set-aside" area will also be controlled or partially controlled, hence it may not be suitable for use where wild flower borders or other forms of conservation headland are to be developed. Before using on land taken out of production as part of a grant-aided scheme, ensure compliance with the management rules of that scheme.

### **WARNINGS**

EXTREME CARE SHOULD BE TAKEN TO AVOID DAMAGE BY DRIFT ONTO BROAD-LEAVED PLANTS OUTSIDE THE TARGET AREA OR ONTO SURFACE WATERS 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 CEREALS.

POOR CLEANOUT PRACTICES AND INSUFFICIENT WATER VOLUMES USED FOR THE RINSE PROCEDURE MAY RESULT IN INADEQUATE REMOVAL OF PRODUCT DEPOSITS. SUBSEQUENT USE OF APPLICATION EQUIPMENT IN THESE CIRCUMSTANCES MAY RESULT IN DAMAGE TO NON-CEREAL CROPS.

### **SPRAY TANK CLEAN-OUT**

TO AVOID SUBSEQUENT DAMAGE TO CROPS OTHER THAN CEREALS, IMMEDIATELY AFTER SPRAYING LORATE THOROUGHLY CLEAN ALL SPRAY EQUIPMENT, INCLUDING INSIDE AND OUTSIDE OF LID, USING THE FOLLOWING PROCEDURE:

Always start with a clean tank and spray system. Clean spray equipment thoroughly immediately after use.

1. Thoroughly and completely rinse all interior tank surfaces (including lid) with water (use at least 10% of the tank capacity), taking care to remove any visible deposits. Flush pump, filters and boom after removing in-line strainers, nozzle tips and screens (clean these parts separately). Drain the remainder of the rinsate from the tank.
2. Repeat the rinse, flush and drain.

### **GENERAL NOTES:**

Consult label tank cleanup procedures for all tank mix partners and be sure to use the most rigorous procedure recommended.

### **NOTICE TO BUYER**

All goods supplied by us are of a high grade and we believe them to be suitable for any purpose for which we expressly supply them, but as we cannot exercise control over their mixing or use, 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 for any damage or injury whatsoever arising from their storage, handling, application or use.

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**[Insert QR code and wording]**

To access the Safety Data Sheet for this product scan the code, visit [www.cropprotection.dupont.co.uk](http://www.cropprotection.dupont.co.uk) or alternatively contact your supplier