



WARNING!
PLANT PROTECTION PRODUCT
READ THE INSTRUCTIONS BEFORE USE

DUCEL®

DUCEL® is selective herbicide for post-emergence control of economically important annual grass and broadleaved weeds as well as some perennial weeds in maize.

DUCEL® is in the form of oil dispersion, containing 40 g/l Nicosulfuron.

Registration number: 3823/2015

Use category: for professional use

Authorization holder and responsible for the final labeling: Zenith Crop Sciences Bulgaria Ltd, 75-83 Dimitar Manoc str , 1408 Sofia, Bulgaria

Batch number and date of manufacture:

Packaging: 5.0 L

Expiry at normal storage: 2 years

DUCEL® - Contains 40 g/L Nicosulfuron



Signal Word: WARNING

Hazard statements

H317 – My cause an allergic skin reaction

H400 – Very toxic to aquatic life

H410 – Very toxic to aquatic life with long lasting effects

Prevention

P101 – If medical advice is needed, have product container or label at hand

P102 – Keep out of reach of children

P261 – Avoid breathing dust/ fume/ gas/ mist/ vapours/spray

P270 – Do not eat, drink or smoke when using this product

Additional Precautionary Statements

P272 – Contaminated work clothing should not be allowed out of the workplace

P280 – Wear protective gloves and protective clothing

Response

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

P321 – Specific treatment (see ... on this label).

P333 + P313 – If skin irritation or rash occurs: Get medical advice/ attention

P362 + P364 – Take off contaminated clothing and wash before reuse

P391 – Collect spillage

Disposal

P501 – Dispose of contents/ container properly

Additional Precautionary Statements

EUH401 – To avoid risks to human health and the environment, comply with the instruction for use

SP1 – 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.

SPe4 – To protect aquatic organisms/ non-target plants do not apply on impermeable surfaces such as asphalt, concrete, cobblestones, railway tracks and other situations with a high risk of run-off

SAFETY PRECAUTIONS

Operator protection

- In case of dust or aerosol formation - use respirator with an approved filter. Half mask with a particle filter FFP2 (EN149).
- In case of prolonged and repeated exposure - wear body-covering chemical resistant protective clothing.
- Use safety glasses with side shields (according to EN 166).
- In case of short term exposure: Single-use vinyl gloves.
- In case of prolonged or frequently repeated exposure – use nitrile-rubber gloves with a protection class of 5 or higher breakthrough time > 240 minutes, thickness > 0.4 mm.
- Protective clothing, as well as the application equipment must be cleaned thoroughly after handling. Empty and rinse tank completely.
- Do not eat, drink or smoke when using this product
- Do not breathe dust/fume/gas/mist/vapours/spray.

Environmental information

- 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).
- In case of accidental release take precautions to protect the surface and underground water, soil and sewage from contamination.
- Remove the sources of heat and flames.
- In case of spill into the sewage, surface water, ground water or soil notify the competent authorities immediately

Storage and disposal

- Keep in unopened original packing.
- Keep in cool, dry, well-ventilated place far from sources of ignition.
- Prevent static electricity generation.
- Do not allow accumulation of dust in significant concentrations.
- Keep out of reach of children.
- Keep away from: medicinal products, food, forage, fertilizers and seed hazardous infectious substances, radioactive substances, explosive substances highly reactive oxidizing substances.

- Disposal must be carried out in accordance with the provisions of the national legislation, in an environmentally safe manner.
- Recommended treatment method: burning in appropriately licensed incinerators.
- The container should be clearly labelled, with content description, danger indication symbols, H - and P - phrases.
- Store in well ventilated areas, until deposit to a licensed waste disposal company. The water used for contaminated surface washing should be collected for further treatment.
- Do not reuse the empty containers for any other purpose.
- Do not dispose into the sewage.
- Do not pollute natural water sources.
- DISPOSE OF CONTENTS/CONTAINERS IN ACCORDANCE WITH LOCAL/ REGIONAL/ NATIONAL/ INTERNATIONAL REGULATIONS

INSTRUCTIONS FOR USE

Crop-specific information

DUCEL® is recommended for use in the following areas:

Pest/Group of pests	mono and dicotyledonous weeds
Crop/Situation	Maize
<u>Application category:</u>	Agriculture
<u>Application:</u>	Outdoor
<u>Application rate (s):</u>	1.0 l/ha
<u>Water application rate:</u>	200 - 400 l/ha
<u>Time of application:</u>	BBCH 12-18
<u>Maximum number of applications:</u>	1
<u>Interval between applications in days:</u>	---
<u>Waiting period in days:</u>	Not required
<u>Re-entry period in days:</u>	---
<u>Application Type:</u>	Spraying

NOTE

The information in the next section is approved as part of the product label. The following instructions are to be considered in order to ensure the efficient and safe use of **DUCEL®**.

Mixing:

- half fill the spray tank with clear water
- add the needed amount of **DUCEL®**
- full fill the tank with agitation, and continue with agitation during spraying

Measures for an appropriate resistance management

The active ingredient Nicosulfuron is included in the HRAC group B herbicides. The development of resistance is an increasing problem worldwide, however at present cases of weeds resistance to Nicosulfuron in Europe are not so often. Resistance is most likely to be generated in uses where Nicosulfuron based products are applied frequently or where alternative herbicides are not readily available.

To avoid resistance, it is recommended to rotate the applications of Nicosulfuron based products with products that are with different mode of action. The Weed Resistance Action Group has produced publicly available guidelines, and following these guidelines is also recommended.

In the event of resistance being noted this should be reported to the supplier and the regulatory authority and an alternative control agent employed.

Warnings / Restrictions

- Avoid spray drift during the application
- Do not leave spray solution or mixtures in the spray tank for long periods after application
- Keep away from reach of children and pets
- Avoid any unnecessary contact
- Do not use empty packaging for any purposes
- Apply maximum 1 applications per year with maximum total dose of 40 g active ingredient of Nicosulfuron per hectare
- Do not apply to soils with clay content less than 10%
- Use this product only as a herbicide for control of broadleaf and grass weeds in maize

Weed control

DUCEL® is a foliar acting systemic herbicide for control of broad leaved and grass, annual and perennial weeds in maize. To be effective **DUCEL®** must be absorbed and translocated therefore good spray cover must be presented.

For better results apply the product at the following weeds stage:

- broadleaved weeds should be at stage up to 2-4 through leaves
- grass weeds should be at stage 2 through leaves to tillering
- rhizome weeds, such as *Sorghum halepense* should be at 10-20 cm high

Susceptible Weeds

SCIENTIFIC NAME	CODE	COMMON NAME
<i>Abutilon theophrasti</i>	ABUTH	Buttonweed, Indian mallow
<i>Aethusa cynapium</i>	AETCY	Fool's parsley
<i>Amaranthus retroflexus</i>	AMARE	Common amaranth, Redroot pigweed
<i>Bidens tripartita</i>	BIDTR	Three-lobe beggarticks
<i>Chamaemelum fuscatum</i>	ANTPR	Chamomile
<i>Chenopodium album</i>	CHEAL	Lamb's quarters, goosefoot
<i>Cirsium arvense</i>	CIRAR	Creeping thistle
<i>Convolvulus arvensis</i>	CONAR	Field bindweed
<i>Cyperus rotundus</i>	CYPRO	Java grass, nut grass
<i>Datura stramonium</i>	DATST	Jimson weed, Devil's snare
<i>Digitaria sanguinalis</i>	DIGSA	Hairy crabgrass, large crabgrass
<i>Echinochloa crus-galli</i>	ECHCG	Cockspur, barnyard millet
<i>Elytrigia repens</i>	AGRRE	Couch grass
<i>Fallopia convolvulus</i>	POLCO	Black-bindweed, wild buckwheat
<i>Fumaria officinalis</i>	FUMOF	Common fumitory
<i>Galactites tomentosa</i>	GCTTO	Purple milk thistle
<i>Leucanthemum vulgare</i>	CHYLE	Ox-eye daisy
<i>Matricaria recutita</i>	MATCH	Wild chamomile
<i>Mercurialis annua</i>	MERAN	Annual mercury
<i>Panicum dichotomiflorum</i>	PANDI	Fall panicgrass, autumn millet
<i>Persicaria lapathifolia</i>	POLLA	Pale persicaria
<i>Persicaria maculosa</i>	POLPE	Lady's thumb
<i>Polygonum aviculare</i>	POLAV	Common knotgrass
<i>Polygonum persicaria</i>	POLPE	Lady's thumb

<i>Portulaca oleracea</i>	POROL	Verdolaga, pigweed
<i>Raphanus raphanistrum</i>	RAPRA	Wild radish, jointed charlock
<i>Rumex crispus</i>	RUMCR	Curly dock, yellow dock
<i>Setaria sp</i>	SETSS	
<i>Setaria verticillata</i>	SETVE	Bristly foxtail
<i>Setaria viridis viridis</i>	SETVI	Green foxtail
<i>Sinapis arvensis</i>	SINAR	Field mustard
<i>Solanum nigrum</i>	SOLNI	Black nightshade
<i>Sonchus asper</i>	SONAS	Sharp-fringed sow thistle, prickly sow-thistle
<i>Sonchus oleraceus</i>	SONOL	Common sowthistle, sow thistle
<i>Sorghum halepense</i>	SORHA	Johnson grass
<i>Veronica persica</i>	VERPE	Birdeye speedwell
<i>Viola arvensis</i>	VIOAR	Field pansy
<i>Xanthium strumarium</i>	XANST	Rough cocklebur, clotbur, common cocklebur

Rotational crops

DUCEL® has no negative effect on the rotational crops. If cereals are planned to be grown after treated maize, it should be observed a period of at least 3 months after application before sowing.

Compatibility

DUCEL® can be mixed with commonly used fungicides and insecticides. However, conduct a small test before mixing the product in commercial quantities to check the physical compatibility.

Processing crops

DUCEL® may be applied to recommend crops subsequently used for human consumption or animal feeding stuffs

Application method

Foliar spraying by Tractor-mounted device (Conventional hydraulic sprayer attached).