

# D50<sup>®</sup>

PEEL BACK FOR DIRECTIONS FOR USE LEAFLET

A soluble concentrate containing 500 g/l (42% w/w) 2,4-D as the dimethylamine salt.

For the selective control of the annual and perennial broad leaved weeds in winter and spring wheat, barley and rye, winter oats, undersown cereals, established agricultural and amenity grassland, managed amenity turf, apple and pear orchard floors.

FOR USE ONLY AS AN AGRICULTURAL, ORCHARD AND AMENITY AREA HERBICIDE

## Safety Information

**Harmful if swallowed.**

**Causes serious eye damage.**

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves/ eye protection/face protection.

IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Rinse mouth.

*Contains 2,4-D. May produce an allergic reaction.*

**ANGER**

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

PCS No. 02366

Crops	Maximum Individual Dose	Maximum Total Dose	Latest Time of Application
Winter wheat, Winter and Spring Rye	2.5 L/ha	2.5 L/ha	Before 1 <sup>st</sup> node detectable stage
Spring Wheat, Winter and Spring Barley, Winter Oats	2.0 L/ha	2.0 L/ha	Before 1 <sup>st</sup> node detectable stage
Wheat, Barley, Rye (undersown with grass)	1.0 L/ha	1.0 L/ha	Before 1 <sup>st</sup> node detectable stage
Grassland	3.3 L/ha	3.3 L/ha	Before the crop is 25 cm high
Amenity grassland and managed amenity turf	3.3 L/ha	9.9 L/ha	–
Apple (around), Pear (around)	2.8 L/ha	2.8 L/ha	

**Application method:** Hydraulic nozzle applicator / knapsack / tractor mounted sprayer

## Additional Safety Phrases

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).

# 5 Litres e

**PROTECT FROM FROST. FOR PROFESSIONAL USE ONLY.**

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24-hour emergency telephone number: +44 (0)1274 696603.

B0882-006 1213



## DIRECTIONS FOR USE

### RESTRICTIONS

- DO NOT use D50 on the seedbed before sowing any crop.
- DO NOT sow any crop into soil treated with D50 for at least 3 months after application.
- DO NOT graze grass for at least 14 days after spraying.
- DO NOT mow or roll four days before or after application. The first four mowings after treatment must be composted for at least 6 months before use.
- DO NOT treat newly established grass or turf less than 1 year old.
- DO NOT treat grass or turf suffering from stress caused by drought, frost, disease or other adverse factors.
- DO NOT roll or harrow crops for 7 days either before or after application of D50.

### WEEDS CONTROLLED

Apply when the majority of annual weeds are at the seedling\* stage. For the control of perennial weeds in established grassland, the best results are obtained if spraying is carried out shortly before flowering. Whilst spraying at this late stage will not give complete control of annual weeds; it may effectively check most of the species mentioned. A second application may be necessary to provide an adequate level of weed control on amenity grassland and managed amenity turf.

\* Seedling= Fully expanded cotyledons to 2 expanded true leaves.

### Weeds controlled - Cereals

Weed species	Rate product/ ha	Comments
Charlock Mustard, Black	700 mL	These weeds will be completely or almost completely killed when applications are made in the cotyledon to early flower-bud stage
Fat Hen Mustard, Treacle Mustard, White Penny-cress, Field Tare, Hairy	1.4 L	These weeds will be completely or almost completely killed when applications are made in the cotyledon to early flower-bud stage
Buttercup, Corn Nettle, Small Radish, Wild Shepherds Purse		These Weeds will be completely or almost completely killed when applications are made in the cotyledon up to 2 leaf stage or moderately susceptible at 4 leaves to early flower-bud stage
Forget-me-not, Field Orache, Common Poppy, Common Sowthistle, Prickly Sowthistle, Smooth Turnip, Wild		These weeds will be moderately susceptible (with or without mortality) when applications are made in the cotyledon up to 2 leaf stage or moderately resistant at 4 leaves to early flower-bud stage
Bindweed, Black Bugloss Bugloss, Viper's Chickweed, Common Cranesbill, Dove's-foot Field-speedwell, Common Fumitory, Common Gromwell, Field Groundsel Knotgrass Mouse-ear, Common Nightshade, Black Persicaria, Pale Pimpernel, Scarlet Redshank Shepherd's needle Speedwell, Green Field Speedwell, Ivy-leaved Speedwell, Wall Spurge, Sun		These weeds will be moderately resistant when applications are made in the cotyledon up to 2 leaf stage or resistant at 4 leaves to early flower-bud stage

Weed species	Rate product/ ha	Comments
Orache, Common Poppy, Common Sowthistle, Smooth	2.0 L	These weeds will be susceptible when applications are made in the cotyledon up to 4 leaf stage or moderately resistant at 6 leaves to early flower-bud stage
Knotgrass Mayweed, Scentless	2.0 L	These weeds will be moderately resistant when applications are made in the cotyledon up to 2 leaf stage or resistant at 4 leaves to early flower-bud stage
Thistle, Creeping*	2.0 - 2.5 L	These weeds will be susceptible when applications are made in the cotyledon up to early flower-bud stage

\*Aerial growth only

**Hoary Cress** – Good control of this perennial weed can be achieved by treatment in winter cereal crops over two successive seasons using 1.6-1.8 l/ha dose of D50. Apply after the shoots are 25-150 mm high up to but before flowering.

#### Amenity grassland and managed amenity turf

Weed species	Rate product/ ha	Comments
Buttercup, Creeping Hawkweed, Mouse-ear, Plantains, Thrift	2.8L	These weeds are consistently killed by one application
Bedstraw, Heath Buttercup, Bulbous Cat's-ear Chickweed, Common Daisy, Dandelion Dock, Curled Hawkbit, Rough Hawk's-beard, Smooth Pennywort, Marsh Sea-milkwort Sorrel, Common Sorrel, Sheep's Stork's-bill, Common Stork's-bill, Sea Thistle Dwarf		Sometimes killed by one application but may require a second treatment to give complete control
Celandine, Lesser Mouse-ear, Common Pearlwort, Procrumbent Selfheal Yarrow		Some effect from one application, but two applications required to give a useful level of control
Ragwort, Common*	3.3 L	Moderately susceptible. Sometimes killed by one application but may require further treatment to give complete control

\*treatment will normally kill plants at all stages of growth up to early bud stage. For best levels of control, treat April-June when rosettes are growing strongly but before flower buds are well formed.

#### Weeds controlled – Agricultural grassland (including grass floors under apple and pear trees)

Weed species	Rate product/ ha	Comments
Buttercup, Creeping Hawkbit, Autumn Hawk's-beard, Rough Plantain, Greater Plantain, Hoary Plantain, Ribwort Sandwort, Thyme-leaved	2.8 L	These weeds are susceptible at all stages of growth up to the beginning of flowering with good control of shoots and roots in established plants

Weed species	Rate product/ ha	Comments
Buttercup, Bulbous Dock, Broad-leaved	2.8 L	Seedlings and shoots are susceptible but established plants in grassland will not be controlled
Dandelion Dock, Curled Nettle, Common Rush, Soft * Thistle, Creeping		Seedlings and shoots are susceptible but only aerial growth of established plants is usually controlled
Thistle, Spear		Seedlings are susceptible but only aerial growth of established plants is usually controlled
Bartsia, Red Bindweed, Hedge Burdock, Lesser Buttercup, Meadow Cat's-Ear Chicory Cress, Hoary Daisy Dock, Clustered Fleabane, Common Goatsbeard Hawk's-beard, Smooth Hawkbit, Rough Hawkweed, Mouse-ear Hempnettle, Large-flowered Knapweed, Common Knawel, Annual Mugwort Oxtongue, Bristly Plantain, Buck's-horn Purple-loosestrife, Radish, Horse Scabious, Field Self-heal Thistle, Musk Thornapple Vetch, Common Vetch, Tufted		These weeds are well controlled in the seedling or shoot stage with useful suppression or death of aerial parts at later growth stages
Horsetail, Field** Horsetail, Marsh**	2.8 L	Only controls shoots which are well developed (preferably about 30 cm high). Control of established plants is variable. Re-growth will occur in following season
Sorrel, Common Sorrel, Sheep's Sowthistle, Perennial		Provides useful control of shoots only
Bindweed, Field**** Ragwort, Common**	3.3 L+	Moderately susceptible. Aerial growth usually killed and a useful measure of long term control obtained under suitable conditions

\* May be controlled by application in April to June when growing well. For best results, cut the rushes 4 weeks after treatment or cut them 4 weeks before application and remove stems before spraying

\*\* Use 2.8 litres per hectare and spray when growing well in May or early June. Top growth is removed or considerably reduced for the season of treatment. In grassland for hay or silage, shoot kill may be obtained by using 2.0l/ha two weeks before cutting.

\*\*\* Treatment will normally kill plants at all stages of growth up to early bud stage. For best levels of control, treat in April-June when rosettes are growing strongly but before flower buds are well formed.

\*\*\*\* In order to obtain maximum effect in the year after treatment, spraying should be delayed until shoots are well developed.

+ Application rate of 3.3 L/ha is not permissible around apple and pear trees for the control of common ragwort, although a maximum individual dose and maximum total dose of 2.8 L/ha is permitted.

**Ragwort control***Rate of use*

Agricultural grassland: D50 at 2.8 L/ha + Agritox 50 (PCS No. 03505) at 2.0 L/ha  
Do not apply 2.8 L/ha D50 alone as this will not give reliable control of Ragwort.

*Timing*

Agricultural grassland (including grass floors under apple and pear trees), Amenity grassland and Managed amenity turf

Spray when the majority of plants are in the rosette stage and growing vigorously in the autumn or spring but before the flower spines start to grow. D50 should be applied in good growing conditions. Treatment of Ragwort should always be part of a programme and repeat application may be necessary together with removal of any flower heads in the summer to reduce seed return to the soil. Fields for hay or silage the following spring should be sprayed in the preceding autumn. Fields to be grazed should be treated in the spring.

**NB.** It is important that all livestock are kept out of treated areas for at least two weeks following treatment and until the Ragwort has died and become unpalatable.

**CROP SPECIFIC INFORMATION**

Crop	Dose (L product/ha)	Maximum Total Dose (L product/ha)	Timing and remarks
Winter Wheat, Winter and Spring Rye	0.7 - 2.5	2.5 per crop	Winter Cereals: Apply in the spring from the leaf sheath erect stage but before the 1 <sup>st</sup> node detectable stage Spring Cereals: Apply from the 5 leaf fully expanded stage but before the 1 <sup>st</sup> node detectable stage
Winter and Spring Barley, Winter Oats, Spring Wheat	0.7 – 2.0	2.0 per crop	Winter Cereals: Apply in the spring from the leaf sheath erect stage but before the 1 <sup>st</sup> node detectable stage Spring Cereals: Apply from the 5 leaf fully expanded stage but before the 1 <sup>st</sup> node detectable stage
Wheat, Barley, Rye (undersown with grass)	1.0	1.0 per crop	Apply in the spring following the same recommendations as for cereals. DO NOT spray with D50 before undersowing. Experience has shown that when weeds and cereals form a canopy undersown crops may be safely treated using not more than 1.0 L/ha at low volume.
Rotational and Permanent Grassland established for at least one year.	3.3	3.3 per year	Apply in spring to autumn at the optimum timing when grass density is low, such as after cutting or grazing, but when weeds are at a susceptible stage. Grassland may be treated with 2.8-3.3 L/ha of D50 according to the weeds present. Recommended rates are given in the weed susceptibility table for grassland.
Do not use where clovers are an important part of the sward			
Grass floors under apple and pear orchards. The orchards must have established for at least one year.	2.8	2.8 per year	Apply in spring or autumn when weeds are actively growing. Do not spray during blossom or whilst weeds are in flower. Use low pressure nozzles to avoid spray drift. Bramley Seedling, Emneth Early and Miller's Seedling are particularly susceptible to spray drift. Pears are more susceptible to spray drift than apples and are particularly susceptible to damage via root uptake.
Do not apply directly to trees			
Amenity Grassland and Managed Amenity Turf (established for at least one year).	3.3	9.9 per year	Apply in spring/summer or autumn when the growing conditions are favourable. Amenity grassland and managed amenity turf may be treated with 2.8-3.3 L/ha of D50. The expected levels of control are detailed in the weed susceptibility table for amenity uses. Some perennial weeds will need subsequent application in order to achieve adequate control. A follow up application may also be needed where new seedling weeds appear. An interval of 4 – 6 weeks should elapse between applications. Clovers will receive a check. Top dressing ten days before treatment is recommended to assist kill of weeds and subsequent recovery of the sward.

See under 'Weeds Controlled' for specific application rates for individual weeds.

D50 may be used on all varieties of the listed crops within the recommended growth stages. DO NOT treat barley intended for malting, spring oats or any cereal mixture with peas or beans or other legumes.

Apply in at least 110 L/ha water. In grassland and turf, where weeds might be shielded by grasses, use 400 l/ha water. Refer to the table for special situation pertaining to grass floors under apples and pears.

**MIXING AND SPRAYING**

Before use ensure that the spraying equipment has been thoroughly cleaned. Half-fill the spray tank with clean water. With the contents of spray tank under re-circulation, add the measured quantities of D50 through the filter. Top up the tank with water to the required level and maintain re-circulation until the tank is sprayed out.

Apply the recommended quantity of D50 through a conventional hydraulic sprayer using a MEDIUM spray to cover the weed leaves evenly and thoroughly.

Avoid spray drift onto neighbouring crops and all broad-leaved plants outside the target area. Do not spray in windy weather. Beets, all brassicas (including oilseed rape, Swedes and turnip) lettuce, sunflowers, onions, peas, potatoes, tomatoes, cucumbers, all fruit crops (including vines) and ornamentals are particularly susceptible to 2,4-D and may be damaged by spray drift.

After each days use, wash out with water and wetting agent. Wash out again with water, drain and allow to dry. Traces of herbicide left in the sprayer may damage susceptible crops if these are subsequently sprayed using the same equipment.

**Hand-held applicators**

Knapsack Applicator:

These may be used in Orchards and Grassland areas.

Example of Use:

Examples for a 10 L sprayer delivering 200 L spray/ha:

Equivalent Application Rate	Sprayer Size	Volume D50 (Litres)	Volume Water (Litres)	Area treated
2.8 L product/ha	10 L	0.140	9.860	500 m <sup>2</sup>
3.3 L product/ha	10 L	0.165	9.835	500 m <sup>2</sup>

**WEATHER AND GROWING CONDITIONS**

Apply to a dry crop when rain is not forecast for at least 12 hours. Optimum results are obtained when the weeds are actively growing under good soil and weather conditions. Reduced weed control may be obtained during drought or cold weather. If rain falls shortly after application, the effect of D50 may be reduced.

**RESISTANCE MANAGEMENT**

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 to be resistant to a herbicide if it survives a correctly applied treatment at the recommended dose. A strategy for preventing and managing such resistance should be adopted. This should include integrating herbicides with a programme of cultural control measures.

**TERMS AND CONDITIONS OF SUPPLY, SALE OR USE**

All goods supplied by Nufarm UK Limited are of high grade and we believe them to be suitable for the purposes for which we expressly supply them; but as we cannot exercise any control over their mixing, use or application which may affect the performance of the goods 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 or our Associate Companies for any damage or injury whatsoever arising from their storage, handling, re-application or use. These conditions cannot be varied by our staff, our agents or by re-sellers of the product whether or not they supervise or assist in the use of such goods.

**ACKNOWLEDGEMENTS**

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# SAFETY DATA SHEET

Version 3 (Ireland)

Issuing date: 2014/01/23

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

Trade name: D50

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use: Herbicide

### 1.3. Details of the supplier of the safety data sheet

Nufarm UK Limited, Wyke Lane, Wyke, Bradford, West Yorkshire  
BD12 9EJ United Kingdom  
Telephone: +44 (0)1274 691234 Telefax: +44 (0)1274 691176  
E-mail address: infouk@uk.nufarm.com

### 1.4. Emergency telephone number

+44 (0)1274 696603

## 2. HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

EEC/99/45: Xi R38 - Irritating to skin.  
Xi R41 - Risk of serious damage to eyes.  
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
EG\_1272/08: AcuteTox.4 H302 - Harmful if swallowed.  
EyeDam.1 H318 - Causes serious eye damage.

### 2.2. Label elements

according directive 1999/45/EC

Pictogram:



R38 - Irritating to skin.  
R41 - Risk of serious damage to eyes.  
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
S 2 - Keep out of the reach of children.  
S13 - Keep away from food, drink and animal feedingstuffs.  
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S37/39 - Wear suitable gloves and eye/face protection.  
S35 - This material and its container must be disposed of in a safe way.  
S57 - Use appropriate container to avoid environmental contamination.

REGULATION (EC) No 1272/2008

Pictogram:



GHS05



GHS07

H302 - Harmful if swallowed.  
H318 - Causes serious eye damage.  
P264 - Wash hands thoroughly after handling.  
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P301 + - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.  
P312 -  
P330 - Rinse mouth.  
P305 + - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P351 +  
P338 -

### 2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical nature:** Soluble liquid Contains 500 g/L 2,4-D as DMA salt

### 3.2. Mixtures

#### Components:

2,4-D DMA  
CAS-No.: 2008-39-1  
EINECS-No. / ELINCS No.: 217-915-8  
REACH No.:  
Concentration: 51.4 % (w/w)

#### Classification:

EG\_1272/08 : AcuteTox.4 H302 - Harmful if swallowed.  
EyeDam.1 H318 - Causes serious eye damage.  
SkinSens.1 H317 - May cause an allergic skin reaction.  
AquaticChronic2 H411 - Toxic to aquatic life with long lasting effects.  
R41 - Risk of serious damage to eyes.  
R22 - Harmful if swallowed.  
R43 - May cause sensitization by skin contact.  
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
EEC/67/548 : Xi  
Xn  
N

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

#### Eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Obtain medical attention.

#### Skin contact:

Take off all contaminated clothing immediately. Wash off immediately with soap and plenty of water. If symptoms persist, call a physician. Wash contaminated clothing before re-use.

#### Inhalation:

Move to fresh air. If symptoms persist, call a physician.

#### Ingestion:

Do NOT induce vomiting. Rinse mouth. If conscious, drink plenty of water. If symptoms persist, call a physician.

### 4.2. Most important symptoms and effects, both acute and delayed

Hazards: No information available.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### 5.1. Extinguishing media

Suitable extinguishing media: Water spray, Carbon dioxide (CO<sub>2</sub>),

Dry powder, Alcohol-resistant foam

Extinguishing media which shall not be used for safety reasons:

High volume water jet

### 5.2. Special hazards arising from the substance or mixture

In the event of fire (HCl, Cl<sub>2</sub>, NO<sub>x</sub>, CO) may be formed.

### 5.3. Advice for firefighters

Special protective equipment for fire-fighters: Use personal protective equipment. Wear self-contained breathing apparatus for fire fighting if necessary.

Further Information: Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment. (see Chapter 8)

### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

### 6.3. Methods and materials for containment and cleaning up

Methods for cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder). Sweep up and shovel into suitable containers for disposal.

Additional advice: Never return spills in original containers for re-use.

## 6.4. Reference to other sections

see Chapter 13

## 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Safe handling advice: Wear personal protective equipment.

### 7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Store in original container. Keep containers tightly closed in a cool, well-ventilated place.

Advice on common storage: Keep out of reach of children. Keep away from food, drink and animal feeding stuffs.

### 7.3. Specific end uses

none

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Components with workplace control parameters (according to S.I. No. 619 of 2001)

Components:

2,4-D DMA

CAS-No.: 2008-39-1

National occupational exposure limits: -

Note: no classification available. (according to S.I. No. 619 of 2001)

### 8.2. Exposure controls

#### **Personal protective equipment**

Respiratory protection: No special protective equipment required.

Hand protection: PVC or nitrile-rubber gloves

Eye protection: Safety glasses, , or, Goggles

Skin and body protection: lightweight protective clothing

Hygiene measures: Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

Protective measures: Avoid contact with skin, eyes and clothing. Keep working clothes separately.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

#### **Appearance**

Physical state: liquid

Colour: brown

Odour: amine-like

Boiling point/boiling range: ca.100 °C

Density: 1.172 g/cm<sup>3</sup> at 20 °C

Water solubility: completely miscible

pH: 7.5 - 9

Partition coefficient: n-octanol/water: log POW = 0.04 - 0.33 (pH 5)

### 9.2. Other information

none



## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

no data available, not applicable

### 10.2. Chemical stability

No decomposition if stored and applied as directed.

### 10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

### 10.4. Conditions to avoid

No dangerous reaction known under conditions of normal use.

### 10.5. Incompatible materials to avoid

Strong acids and strong bases

### 10.6. Hazardous decomposition products

none

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

Acute oral toxicity: LD50 rat  
Dose: 1,297 mg/kg

Acute dermal toxicity: LD50 rabbit  
Dose: > 4,000 mg/kg

Acute inhalation toxicity: LC50  
Dose: > 5 mg/l

Skin irritation: Result: No skin irritation

Eye irritation: Result: Severe eye irritation

Sensitisation: Result: Did not cause sensitization.

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

Toxicity to fish : LC50  
Dose: > 200 mg/l  
Testing period: 96 h

Toxicity to daphnia: LC50  
Dose: > 200 mg/l  
Testing period: 48 h

Toxicity to algae: ErC50 Toxicity to algae  
Dose: 364 mg/l  
ErC50 Lemna gibba (Duckweed)  
Dose: 1.36 mg/l

### 12.2. Persistence and degradability

Biodegradability: Readily biodegradable.

Stability in soil: DT50: 2 - 59 d (2,4-D)

### 12.3. Potential bioaccumulation

Bioaccumulation: Does not bioaccumulate.

### 12.4. Mobility in soil

Koc= 5 - 212 (2,4-D)

### 12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

### 12.6. Other adverse effects

none

## 13. DISPOSAL CONSIDERATIONS

According to European Directive 2000/532/EC as amended :  
Waste Code: 02 01 08 (agrochemical waste containing dangerous substances)

### 13.1. Waste treatment methods

Product: Dispose of in accordance with local regulations.  
Contaminated packaging: Do not re-use empty containers.  
Dispose empty and triple rinsed container within a local disposing system according to EC directive 94/62/EC

## 14. TRANSPORT INFORMATION

### 14.1. UN number

### 14.2. Proper shipping name

not applicable

### 14.3. Transport hazard class(es)

ADR/RID:

Not a dangerous substance as defined in the above regulations.

IMDG:

Not a dangerous substance as defined in the above regulations.

IATA-DGR:

Not a dangerous substance as defined in the above regulations.

### 14.4. Packaging group

not applicable

### 14.5. Environmental hazards

not applicable

### 14.6. Special precautions for user

none

## 15. REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Other regulations: The product is classified and labelled in accordance with EC directives or respective national laws.

### 15.2. Chemical Safety Assessment

none

## 16. OTHER INFORMATION

Print Date: 2014/01/23

The date format YYYY/MM/DD is used according to ISO 8601.  
(Alterations are indicated in the left hand margin by: ll )

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties..