



SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Dikopur Top SL

Version 7 (Georgia)

Issuing date: 2012/07/23

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

1.1. Product identifier

Trade name : **Dikopur Top SL**

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

Use : Plant Protection Product

1.3. Details of the supplier of the safety data sheet

Nufarm GmbH & Co KG
St.-Peter-Str.25
A-4021 Linz

Telephone: +43/732/6918-4010
Telefax: +43/732/6918-64010
E-mail address: Johann.Mayr@at.nufarm.com

1.4. Emergency telephone number

+43/732/6914-2466 (Linz/Austria production site)

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

EEC/99/45 : Xn R22 - Harmful if swallowed.
Xi R41 - Risk of serious damage to eyes.
R43 - May cause sensitization by skin contact.

2.2. Label elements

according directive 1999/45/EG

Pictogram:



Xn



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- R22 - Harmful if swallowed.
R41 - Risk of serious damage to eyes.
R43 - May cause sensitization by skin contact.
- S 2 - Keep out of the reach of children.
S13 - Keep away from food, drink and animal feedingstuffs.
S20/21 - When using do not eat, drink or smoke.
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.
S46 - If swallowed, seek medical advice immediately and show this container or label.

2.3. Other hazards

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Aqueous solution of dimethylammonium salts
2,4-D 344 g/l, Dicamba 120g/l

3.2. Mixtures

Components:

2,4-D DMA

CAS-No.: 2008-39-1
EINECS-No. / ELINCS No.: 217-915-8
REACH No.:
Concentration: 35,7 % (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.
EEC/67/548 : Xi R41 - Risk of serious damage to eyes.
Xn R22 - Harmful if swallowed.
N R43 - May cause sensitization by skin contact.
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Dicamba DMA

CAS-No.: 2300-66-5
EINECS-No. / ELINCS No.: 218-951-7
REACH No.:
Concentration: 12,4 % (w/w)

Classification:

EG_1272/08 : EyeIrrit.2 H319 - Causes serious eye irritation.
AquaticChronic3 H412 - Harmful to aquatic life with long lasting effects.



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EEC/67/548 : Xi R36 - Irritating to eyes.
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2,4-Dichlorophenol

CAS-No.: 120-83-2
EINECS-No. / ELINCS No.: 204-429-6
REACH No.: 01-2119513326-47
Concentration: 0% - 0,1% (w/w)

Classification:

EG_1272/08 : AcuteTox.3 H311 - Toxic in contact with skin.
AcuteTox.4 H302 - Harmful if swallowed.
SkinCorr.1B H314 - Causes severe skin burns and eye damage.
AquaticChronic2 H411 - Toxic to aquatic life with long lasting effects.
EEC/67/548 : T R24 - Toxic in contact with skin.
Xn R22 - Harmful if swallowed.
C R34 - Causes burns.
N R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

4.1. Description of first aid measures

Eye contact : If eye irritation persists, consult a specialist. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Skin contact : Wash off immediately with soap and plenty of water.

Inhalation : Move to fresh air.

Ingestion : Rinse mouth. Do NOT induce vomiting. If swallowed, seek medical advice immediately and show this container or label.

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

Symptoms : sweating, headache, weakness, Diarrhoea, anorexia, Nausea, Salivation, stomach pains, Blurred vision, muscle twitching, Convulsions, loss of reflex, heart and circulatory collaps, Coma

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

Treatment : No specific antidote, symptomatic treatment. As the elimination occurs via the kidneys a dialyse is appropriate. Control of water and electrolytes balance. If ingested, irrigate the stomach.



5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media : Water spray, Dry powder, Sand, Foam, Carbon dioxide (CO₂)

Extinguishing media which shall not be used for safety reasons : High volume water jet

5.2. Special hazards arising from the substance or mixture

Specific hazards during fire fighting : In the event of fire (HCl, Cl₂, NO_x, 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

Use 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). Use mechanical handling equipment.

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. Keep out of the reach of children.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store at room temperature in the original container.

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

Storage stability

Storage temperature : > 0 °C

7.3. Specific end uses

none

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace control parameters
no data available

8.2. Exposure controls

Personal protective equipment

Respiratory protection : No special protective equipment required.

Hand protection : Gloves

Eye protection : Safety glasses

Skin and body protection : protective suit

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 at 20 °C ,
Form : Soluble concentrate
Colour : brown
Odour : amine-like

Start of crystallisation : ca.0 °C
Aqueous solution

Boiling point/boiling range : ca.100 °C
at 1.013 hPa
Aqueous solution

Flash point : > 103 °C

Ignition temperature : > 424 °C

Upper explosion limit : no data available

Lower explosion limit : no data available

Vapour pressure : Active ingredients are organic salts. Vapour pressure is negligibly low.

Density : 1,15 - 1,17 g/cm³
at 20 °C

Water solubility : completely miscible

pH : 8 - 10

6 - 9
at 10 g/l

Partition coefficient: n-
octanol/water : no data available



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Dissociation constant : no data available

Viscosity, dynamic : 10,6 mPa.s
at 20 °C

9.2. Other information

none

10. STABILITY AND REACTIVITY

10.1. Reactivity

no data available

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

no data available

10.4. Conditions to avoid

No decomposition if stored and applied as directed.

10.5. Incompatible materials to avoid

Strong bases

10.6. Hazardous decomposition products

no data available

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute oral toxicity : LD50 rat
Dose: 1.127 mg/kg

Acute dermal toxicity : LD50 rat
Dose: > 2.000 mg/kg



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Acute inhalation toxicity	:	Remarks: no data available
Skin irritation	:	rabbit Result: Mild skin irritation
Eye irritation	:	rabbit Classification: Risk of serious damage to eyes. Result: Severe eye irritation
Sensitisation	:	mouse Result: Causes sensitization.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Toxicity to birds	:	Practically non toxic.
Toxicity to bees	:	LD50 (oral) Apis mellifera (Honey bee) Value ($\mu\text{g}/\text{Species}$): > 100
	:	LD50 (contact) Apis mellifera (Honey bee) Testing period: 72 h Value ($\mu\text{g}/\text{Species}$): > 100
Toxicity to earthworms	:	LC50 Eisenia fetida (earthworms) Dose: > 1.000 ppm Testing period: 14 d
	:	NOEC Eisenia fetida (earthworms) Dose: 1.000 ppm Testing period: 14 d
Toxicity to fish	:	LC50 Oncorhynchus mykiss (rainbow trout) Dose: > 1.000 mg/l Testing period: 96 h Practically non toxic.
	:	LC50 Cyprinus carpio (Common carp) Dose: > 1.000 mg/l



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Testing period: 96 h
Practically non toxic.

Toxicity to daphnia : EC50 Daphnia magna (Water flea)
Dose: > 1.000 mg/l
Testing period: 48 h
Practically non toxic.

Toxicity to algae : IC50 Desmodesmus subspicatus (green algae)
Dose: 204,6 mg/l
Exposure time: 72 h
Practically non toxic.

12.2. Persistence and degradability

Biodegradability : Readily biodegradable, according to appropriate OECD test.

Stability in soil : DT50: 8 - 25 d
(2,4-D)

DT50: < 14 d
(Dicamba)

Stability in water : DT50: 13 d
(2,4-D)

DT50: 14 - 40 d
(Dicamba)

12.3. Potential bioaccumulation

Bioaccumulation : Does not bioaccumulate.

12.4. Mobility in soil

no data available

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



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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 : In accordance with local and national 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

UN3082

14.2. Proper shipping name

UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.*(2,4-D)

14.3. Transport hazard class(es)

ADR/RID :
Class : 9

IMDG :
Class : 9

IATA-DGR :
Class : 9

14.4. Packaging group

ADR/RID : III

IMDG : III

IATA-DGR : III



14.5. Environmental hazards

IMDG

Marine pollutant : MP

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 : 2013/05/06

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

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.

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