



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

**Lentemul D**  
Version 9 (Georgia)

Issuing date: 2012/07/24

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

### 1.1. Product identifier

Trade name : **Lentemul D**

### 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.
	N	R43 - May cause sensitization by skin contact.
		R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 2.2. Label elements

according directive 1999/45/EG

Pictogram:



Xn



N

- R22 - Harmful if swallowed.  
 R43 - May cause sensitization by skin contact.  
 R50/53 - Very toxic 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.  
 S20/21 - When using do not eat, drink or smoke.  
 S24 - Avoid contact with skin.  
 S37 - Wear suitable gloves.  
 S46 - If swallowed, seek medical advice immediately and show this container or label.  
 S60 - This material and its container must be disposed of as hazardous waste.  
 S61 - Avoid release to the environment. Refer to special instructions/ Safety data sheets.

### 2.3. Other hazards

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

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical nature** : Mixture of active ingredient and additives  
 2,4-D EHE 450g acid/L

### 3.2. Mixtures

#### Components:

#### 2,4-D 2EHE

CAS-No.: 1928-43-4  
 EINECS-No. / ELINCS No.: 217-673-3  
 REACH No.:  
 Concentration: 61,8 % (w/w)

#### Classification:

EG_1272/08 :	AcuteTox.4	H302 - Harmful if swallowed.
	SkinSens.1	H317 - May cause an allergic skin reaction.
	AquaticAcute1	H400 - Very toxic to aquatic life.
	AquaticChronic1	H410 - Very toxic to aquatic life with long lasting effects.
EEC/67/548 :	Xn	R22 - Harmful if swallowed.
		R43 - May cause sensitization by skin contact.
	N	R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.



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#### 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 : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.
- Skin contact : Wash off immediately with soap and plenty of water.
- Inhalation : Move to fresh air.
- Ingestion : If ingested, irrigate the stomach. 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 : From experiments with animals:, 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.



## 5. FIRE-FIGHTING MEASURES

### 5.1. Extinguishing media

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

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, Cl<sub>2</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

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 : Emulsion, oil in water (EW)  
Colour : white  
light brown  
Odour : phenol-like

Start of crystallisation : < 0 °C

Boiling point/boiling range : ca.100 °C  
at 1.013 hPa  
(aqueous emulsion)

Flash point : > 101 °C  
Method: 92/69/EEC A9

Ignition temperature : no data available

Upper explosion limit : no data available

Lower explosion limit : no data available

Vapour pressure : 6,7E-04 Pa  
at 25 °C  
Method: 92/69/EEC A4  
(2,4-D 2EHE)

Density : 1,1 g/cm<sup>3</sup>  
at 20 °C

Water solubility : emulsifiable  
  
< 0,00009 g/l  
at 25 °C  
(2,4-D 2EHE)

pH : 5 - 7  
at 20 g/l



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(as an emulsion)

Partition coefficient: n-  
octanol/water : log POW = 5,78  
at 25 °C

(2,4-D 2EHE)

Dissociation constant : no data available

Viscosity, dynamic : 78,1 mPa.s  
at 20 °C

56,2 mPa.s  
at 40 °C

Surface tension : 54,7 mN/m  
at 20,7 °C

## 9.2. Other information

none

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

no data available

### 10.2. Chemical stability

No spontaneous or exothermic decomposition up to 100 °C.

### 10.3. Possibility of hazardous reactions

no data available

### 10.4. Conditions to avoid

none

### 10.5. Incompatible materials to avoid

none

### 10.6. Hazardous decomposition products



no data available

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

Acute oral toxicity	:	LD50 rat Dose: ca. 1.439 mg/kg
Acute dermal toxicity	:	LD50 rat Dose: > 2.000 mg/kg
Acute inhalation toxicity	:	rat Exposure time: 4 h Dose: > 3,302 mg/l
Skin irritation	:	rabbit Result: No skin irritation
Eye irritation	:	rabbit Result: No eye irritation
Sensitisation	:	Guinea-pig Result: Causes sensitization on guinea-pigs.

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

Toxicity to birds	:	Non toxic for birds.
Toxicity to bees	:	Not toxic to bees.
Toxicity to fish	:	LC50 <i>Oncorhynchus mykiss</i> (Rainbow trout) Dose: > 100 mg/l Testing period: 96 h
Toxicity to daphnia	:	EC50 <i>Daphnia magna</i> (Water flea)



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Dose: > 100 mg/l  
Testing period: 48 h

Toxicity to algae : EbC50 *Desmodesmus subspicatus* (green algae)  
Dose: 6,6 mg/l  
Exposure time: 72 h

### 12.2. Persistence and degradability

Biodegradability : Readily biodegradable, according to appropriate OECD test.

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

Stability in water : DT50: 13 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 : 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 2EHE)

### 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



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## 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 : 2014/02/13

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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