



SAFETY DATA SHEET
according to EC directive 2001/58/EC

DICOPUR

Version 9

Issue date 2005.10.12

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

Product information

Trade name : **DICOPUR**

Usage : Pesticide

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

Emergency telephone number : +43/732/6914-2466 (Linz/Austria production site)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Aqueous solution of the dimethylammonium salt
2,4-D 500g/L

| Components | CAS-No. | EINECS-No. ELINCS-No. | Symbol(s): | R-phrases(s) | Concentration (w/w) |
|--------------------|-----------|--------------------------|------------|--------------------------|------------------------|
| 2,4-D DMA | 2008-39-1 | 217-915-8 | Xn, N | R22, R41, R43, R51/53 | 51,4 % |
| 2,4-Dichlorophenol | 120-83-2 | 204-429-6 | T, N | R22, R24, R34, R51/53 | 0,1 % |

3. HAZARDS IDENTIFICATION

Irritating to skin.
Irritating to eyes.

4. 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 : 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.

Notes to physician

Symptoms : sweating, headache, weakness, diarrhoea, anorexia, nausea, salivation, stomach pains, blurred vision, muscle twitching, convulsions, loss of reflex, heart and circulatory collaps, coma



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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, gastric lavage.

5. FIRE-FIGHTING MEASURES

- Specific hazards during fire fighting : In the event of fire (HCl,Cl₂,NO_x,CO) may be formed.
- Special protective equipment for fire-fighters : Use personal protective equipment. In the event of fire, wear self-contained breathing apparatus.
- Suitable extinguishing media : water spray, dry powder, sand, foam, carbon dioxide (CO₂)
- Extinguishing media which must not be used for safety reasons : high volume water jet
- Further information : Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Use personal protective equipment. (see Chapter 8)
- Environmental precautions : Do not flush into surface water or sanitary sewer system.
- 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.

7. HANDLING AND STORAGE

Handling

Safe handling advice : Keep out of reach of children. Wear personal protective equipment. Do not breathe vapours or spray mist.

Storage

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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

Appearance

- Physical state : liquid at 20 °C ,
- Form : Soluble concentrate
- Colour : light yellow
- Odour : amine-like

Other data

- Start of crystallisation : ca.0 °C
- Boiling point/range : ca.100 °C
at 1.013 hPa
Aqueous solution
- Flash point : > 110 °C
Method: EN/DIN 22719



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| | |
|---|--|
| Ignition temperature | : no data available |
| Upper explosion limit | : no data available |
| Lower explosion limit | : no data available |
| Vapour pressure | : Active ingredient is an organic salt. Vapour pressure is negligibly low. |
| Density | : 1,172 g/cm ³ at 20 °C |
| Water solubility | : completely miscible |
| pH | : 8 - 10 |
| Partition coefficient (n-octanol/water) | : log POW = 2,7 at 25 °C (2,4-D), (pH 1) log POW = -0,83 at 25 °C (2,4-D), (pH 7) |
| Viscosity, dynamic | : no data available |

10. STABILITY AND REACTIVITY

| | |
|-----------------------|--|
| Thermal decomposition | : No spontaneous or exothermic decomposition up to 100 °C. |
| Conditions to avoid | : none |
| Materials to avoid | : strong bases |

11. TOXICOLOGICAL INFORMATION

| | |
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| Acute oral toxicity | : LD50 rat |
|---------------------|------------|



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| | |
|---------------------------|---|
| | Dose: > 2.000 mg/kg |
| Acute inhalation toxicity | : LC50 rat Exposure time: 4 h Dose: > 7,41 mg/l |
| Skin irritation | : rabbit Result: Irritating to skin. |
| Eye irritation | : rabbit Result: Irritating to eyes. |
| Sensitization | : Maximisation Test (GPMT) Guinea-pig Result: Did not cause sensitization. |

12. ECOLOGICAL INFORMATION

Elimination information (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) |
| Bioaccumulation | : No bioaccumulation. |

Ecotoxicity effects

| | |
|---------------------|---|
| Toxicity to birds | : LC50 <i>Anas platyrhynchos</i> (Mallard Duck) Dose: > 2.500 mg/kg diet toxicity, concentration unit is [mg/kg diet], Practically non toxic. |
| Toxicity to bees | : Not toxic to bees. |
| Toxicity to fish | : NOEC <i>Oncorhynchus mykiss</i> (Rainbow trout) Dose: > 100 mg/l Testing period: 672 h |
| Toxicity to daphnia | : flow-through test EC50 <i>Daphnia</i> Dose: 235 mg/l |



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Testing period: 48 h
Test substance: (2,4-D DMA)

Toxicity to algae : EC50 *Nitella* sp.
Dose: 1.100 mg/l
Exposure time: 96 h

Further information : According to our experience, doesn't cause any disturbance in waste water clarifying plant if used appropriately.

Environmental damage is not known or expected under normal use.

13. DISPOSAL CONSIDERATIONS

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

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

14. TRANSPORT INFORMATION

UN-No : **3082**

IMDG

Class : 9
Packaging group : III
Marine pollutant : MP

ADR/RID :

Not classified as dangerous for conveyance in the meaning of the Carriage of Dangerous Goods by Road and Rail (CPL) Regulations 2005.



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IATA-DGR :

Not a dangerous substance as defined in the above regulations.

15. REGULATORY INFORMATION

| | | |
|---------------------|---|---|
| Symbol(s): | : Xi | Irritant |
| R-phrase(s) | : R36 R38 | Irritating to eyes. Irritating to skin. |
| S-phrase(s) | : S 2 S13 S20/21 S26 S36/37/39 | Keep out of reach of children. Keep away from food, drink and animal feeding stuffs. When using, do not eat, drink or smoke. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. |
| Further information | : Handle in accordance with good industrial hygiene and safety practice. | |
| Other regulations | : The product is classified and labelled in accordance with National and European directives. | |

16. OTHER INFORMATION

PRINT DATE : 28.11.2005

(Alterations are indicated in the left hand margin by: ||)

Full text of any R phrases referred to under heading 2:

- R22 - Harmful if swallowed.
- R41 - Risk of serious damage to eyes.
- R43 - May cause sensitization by skin contact.
- R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R22 - Harmful if swallowed.
- R24 - Toxic in contact with skin.
- R34 - Causes burns.
- R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

