



SAFETY DATA SHEET

according to regulation (EC) no 1907/2006

Lupo

Version 1 (UK)

Issue date 04/14/2010

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

Product information

Trade name : **Lupo**

Usage : herbicide

Company : Nufarm UK Limited
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Wyke
Bradford
West Yorkshire BD12 9EJ
United Kingdom

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2. HAZARDS IDENTIFICATION

Harmful if swallowed.
Risk of serious damage to eyes.
Irritating to respiratory system.
Harmful to aquatic organisms.
May cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Aqueous solution of dimethylammonium salts
360g 2,4-D/l, 315g MCPA/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	35.27 %
MCPA DMA	2039-46-5	218-014-2	Xn	R20/21/22	30.74 %

4. 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 : 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.



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

Notes to physician

Treatment : Treat symptomatically.

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. Wear self contained breathing apparatus for fire fighting if necessary.

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

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 : Wear personal protective equipment. Keep out of the reach of children.

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.



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Storage stability

Storage temperature : > 0 °C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

- Respiratory protection : No special protective equipment required.
- Hand protection : PVC or nitrile-rubber 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 : yellowish
- Odour : slight amine-like

Other data

- Melting point/range : no data available
- Boiling point/boiling range : no data available
- Flash point : > 200 °C
- Ignition temperature : no data available
- Upper explosion limit : no data available



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Lower explosion limit	:	no data available
Vapour pressure	:	Active ingredient is an organic salt. Vapour pressure is negligibly low.
Density	:	1.192 g/cm ³ at 20 °C
Water solubility	:	completely miscible
pH	:	8.6
Partition coefficient: n-octanol/water	:	no data available
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

Acute oral toxicity	:	LD50 rat Dose: 553 mg/kg Test substance: 500 g/l MCPA DMA
		LD50 rat Dose: 549 mg/kg Test substance: (2,4-D DMA)
Acute dermal toxicity	:	LD50 rat Dose: > 2,000 mg/kg Test substance: 500 g/l MCPA DMA
		LD50 rat Dose: > 4,000 mg/kg



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		Test substance: (2,4-D DMA)
Acute inhalation toxicity	:	LC50 rat Dose: > 5.9 mg/l Test substance: 500 g/l MCPA DMA
		LC50 rat Dose: > 5.01 mg/l Test substance: (2,4-D DMA)
Skin irritation	:	rabbit Result: No skin irritation Test substance: 500 g/l MCPA DMA
		rabbit Result: No skin irritation Test substance: (2,4-D DMA)
Eye irritation	:	rabbit Result: No eye irritation Test substance: 500 g/l MCPA DMA
		rabbit Result: Severe eye irritation Test substance: (2,4-D DMA)
Sensitisation	:	Guinea-pig Result: Did not cause sensitization on laboratory animals.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability : Readily biodegradable, according to appropriate OECD test.

Stability in soil : DT50 : 13.6 d
(2,4-D)

DT50 : 24 d
(MCPA)

Bioaccumulation : No bioaccumulation.



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Ecotoxicity effects

- Toxicity to bees : Not toxic to bees.
- Toxicity to fish : LC50 *Oncorhynchus mykiss* (Rainbow trout)
Dose: 50 mg/l
Testing period: 96 h
Test substance: (MCPA)
- LC50 *Pimephales promelas* (Fathead Minnow)
Dose: 100 mg/l
Testing period: 96 h
Test substance: (2,4-D)
- Toxicity to daphnia : EC50 *Daphnia*
Dose: 190 mg/l
Testing period: 48 h
Test substance: (MCPA)
- EC50 *Daphnia*
Dose: 100 mg/l
Testing period: 48 h
Test substance: (2,4-D)
- Toxicity to algae : EC50 Toxicity to algae
Dose: 24.2 mg/l
Exposure time: 96 h
Test substance: (2,4-D)
- EC50 Toxicity to algae
Dose: > 392 mg/l
Exposure time: 120 h
Test substance: (MCPA)

13. DISPOSAL CONSIDERATIONS

- Product : In accordance with local and national regulations. Dispose of product and packaging in accordance with The Green Code. (The Code of Practice for the safe use of Pesticides on Farms and Holdings.) A MAFF Publication.
- Contaminated packaging : Dispose of as unused product.
- According to European Directive 2000/532/EC as amended :
Waste Key Number : 02 01 08 (agrochemical waste containing dangerous substances)



14. TRANSPORT INFORMATION

UN-Number : **3082**

Description of the goods : UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S.*(2,4-D)

ADR/RID

Class : 9
Packaging group : III

IMDG

Class : 9
Packaging group : III
Marine pollutant : MP

IATA-DGR

Class : 9
Packaging group : III

15. REGULATORY INFORMATION

Symbol(s) : Xn Harmful

R-phrase(s) : R22 Harmful if swallowed.
R41 Risk of serious damage to eyes.
R37 Irritating to respiratory system.
R52/53 Harmful to aquatic organisms, may cause
long-term adverse effects in the aquatic
environment.

S-phrase(s) : S26 In case of contact with eyes, rinse
immediately with plenty of water and seek
medical advice.



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S39	Wear eye/face protection.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.
S57	Use appropriate container to avoid environmental contamination.
SP 1	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).

Further information : Handle in accordance with good industrial hygiene and safety practice.

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

16. OTHER INFORMATION

Print Date : 14/04/2010

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

Full text of any R phrases referred to under heading 3:

- 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.
- R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.

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.