



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

NU46

Version 3 (Ireland)

Issuing date: 2014/02/04

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

1.1. Product identifier

Trade name : **NU46**

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	R37 - Irritating to respiratory system.
	Xn	R22 - Harmful if swallowed.
	N	R50/53 - Very toxic 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/EG

Pictogram:



Xn



N

- R22 - Harmful if swallowed.
 R41 - Risk of serious damage to eyes.
 R37 - Irritating to respiratory system.
 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.
 S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S39 - Wear eye/face protection.
 S46 - If swallowed, seek medical advice immediately and show this container or label.
 S57 - Use appropriate container to avoid environmental contamination.
 S35 - This material and its container must be disposed of in a safe way.

REGULATION (EC) No 1272/2008

Pictogram:



GHS05



GHS07

Signal word: Danger

- H302 - Harmful if swallowed.
 H318 - Causes serious eye damage.
- P264 - Wash hands thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
 P330 - Rinse mouth.
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P501 - Dispose of contents/ container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non hazardous waste.



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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 the dimethylammonium salt
Contains MCPA 500g/l

3.2. Mixtures

Components:

MCPA

CAS-No.: 94-74-6
EINECS-No. / ELINCS No.: 202-360-6
REACH No.:
Concentration: 44.25 % (w/w)

Classification:

EG_1272/08 : AcuteTox.4 H302 - Harmful if swallowed.
SkinIrrit.2 H315 - Causes skin irritation.
EyeDam.1 H318 - Causes serious eye damage.
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.
Xi R38 - Irritating to skin.
Xi R41 - Risk of serious damage to eyes.
N R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4-chloro-o-cresol

CAS-No.: 1570-64-5
EINECS-No. / ELINCS No.: 216-381-3
REACH No.: 01-2119455846-26
Concentration: 0.1 % (w/w)

Classification:

EG_1272/08 : AcuteTox.3 H331 - Toxic if inhaled.
SkinCorr.1A H314 - Causes severe skin burns and eye damage.
AquaticAcute1 H400 - Very toxic to aquatic life.
EEC/67/548 : T R23 - Toxic by inhalation.
C R35 - Causes severe burns.
N R50 - Very toxic to aquatic organisms.

4. FIRST AID MEASURES

4.1. Description of first aid measures

Eye contact : Rinse immediately with plenty of water, also under the eyelids,



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- 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 : 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 : No information available.

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

- Treatment : Treat symptomatically.

5. FIREFIGHTING 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 firefighting : In the event of fire (HCl, Cl₂, NO_x, CO) may be formed.

5.3. Advice for firefighters

- Special protective equipment for firefighters : Use personal protective equipment. In the event of fire, wear self-contained breathing apparatus.
- 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). Shovel into suitable container 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. Do not breathe vapours or spray mist.

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 out of reach of children. Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

none

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

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

Components	CAS-No.	National occupational exposure limits	Note
MCPA	94-74-6		no classification available, (according to S.I. No. 619 of



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			2001)
4-chloro-o-cresol	1570-64-5		no classification available, (according to S.I. No. 619 of 2001)

8.2. Exposure controls

Personal protective equipment

Hand protection : PVC or nitrile-rubber gloves

Eye protection : Safety glasses, , or:, Goggles

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 : amber
brown
Odour : amine-like

Start of crystallisation : ca.0 °C

Boiling point/boiling range : ca.100 °C
at 1,013 hPa
Aqueous solution

Flash point : > 110 °C
Method: EN/DIN 22719

Ignition temperature : 420 °C

Explosivity : Not explosive

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.



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Density : ca.1.13 g/cm³
at 20 °C

Water solubility : completely miscible

pH : 6.4

Partition coefficient: n-
octanol/water : log POW = 0.59
at 25 °C
(MCPA), (pH 5)

log POW = -0.71
at 25 °C
(MCPA), (pH 7)

9.2. Other information

none

10. STABILITY AND REACTIVITY

10.1. Reactivity

no data available

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



11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute dermal toxicity	:	LD50 rat Dose: > 2,000 mg/kg
Acute inhalation toxicity	:	LC50 rat Exposure time: 4 h Dose: > 4.72 mg/l
Skin irritation	:	rabbit Result: No skin irritation
Eye irritation	:	rabbit Result: Severe eye irritation
Sensitisation	:	Maximisation Test Guinea-pig Result: Did not cause sensitization.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Toxicity to fish	:	LC50 <i>Oncorhynchus mykiss</i> (Rainbow trout) Dose: 99.3 mg/l Testing period: 96 h
Toxicity to daphnia	:	EC50 <i>Daphnia</i> Dose: 424 mg/l Testing period: 48 h
Toxicity to algae	:	ErC50 Toxicity to algae Dose: 60.7 mg/l
		ErC50 <i>Lemna minor</i> (duckweed) Dose: 1.52 mg/l



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12.2. Persistence and degradability

Biodegradability : Readily biodegradable, according to appropriate OECD test.

Stability in soil : DT50: ca. 20 d
(MCPA)

Stability in water : DT50: 13.5 d
(MCPA)

12.3. Potential bioaccumulation

Bioaccumulation : Does not bioaccumulate.

12.4. Mobility in soil

Koc = 10 - 157 (MCPA)

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

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.



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15.2. Chemical Safety Assessment

none

16. OTHER INFORMATION

Print Date : 2014/02/04

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.

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