



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

DUPLOSAN KV

Version 4 (UK)

Issuing date: 2014/01/24

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

1.1. Product identifier

Trade name : **DUPLOSAN KV**

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 :	Xn	R22 - Harmful if swallowed.
	Xi	R38 - Irritating to skin.
	Xi	R41 - Risk of serious damage to eyes.
	N	R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
EG_1272/08 :	SkinIrrit.2	H315 - Causes skin irritation.
	EyeDam.1	H318 - Causes serious eye damage.
	AcuteTox.4	H302 - Harmful if swallowed.

2.2. Label elements

according directive 1999/45/EG

Pictogram:



Xn



N

- R22 - Harmful if swallowed.
 R38 - Irritating to skin.
 R41 - Risk of serious damage to eyes.
 R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S39 - Wear eye/face protection.
 S35 - This material and its container must be disposed of in a safe way.
 S57 - Use appropriate container to avoid environmental contamination.

REGULATION (EC) No 1272/2008

Pictogram:



GHS05



GHS07

Signal word: Danger

- H302 - Harmful if swallowed.
 H315 - Causes skin irritation.
 H318 - Causes serious eye damage.
- 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.
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
 P332 + P313 - If skin irritation occurs: Get medical advice/ attention.

2.3. Other hazards



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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Soluble liquid
Mecoprop-P 600g/l as the potassium salt

3.2. Mixtures

Components:

mecoprop-P

CAS-No.: 16484-77-8
EINECS-No. / ELINCS No.: 240-539-0
REACH No.: 01-2119447100-56
Concentration: 48.2 % (w/w)

Classification:

EG_1272/08 : AcuteTox.4 H302 - Harmful if swallowed.
EyeDam.1 H318 - Causes serious eye damage.
AquaticChronic2 H411 - Toxic to aquatic life with long lasting effects.
EEC/67/548 : Xn R22 - Harmful if swallowed.
Xi R41 - Risk of serious damage to eyes.
N R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

potassium hydroxide

CAS-No.: 1310-58-3
EINECS-No. / ELINCS No.: 215-181-3
REACH No.: 01-2119487136-33
Concentration: 12% - 17% (w/w)

Classification:

EG_1272/08 : AcuteTox.4 H302 - Harmful if swallowed.
SkinCorr.1A H314 - Causes severe skin burns and eye damage.
EEC/67/548 : Xn R22 - Harmful if swallowed.
C R35 - Causes severe burns.

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. 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.



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Ingestion : Do NOT induce vomiting. Rinse mouth. If conscious, drink plenty of water. If symptoms persist, call a physician.

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

Hazards : 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, Carbon dioxide (CO₂), Dry powder, Alcohol-resistant foam

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, CO) may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters : 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

Wear 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). Sweep up and shovel into suitable containers 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.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep containers tightly closed in a cool, well-ventilated place.

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
(EH40/2005 Workplace exposure limits)

Components	CAS-No.	National occupational exposure limits	Note
mecoprop-P	16484-77-8		no classification available, not listed in EH40/2005
potassium hydroxide	1310-58-3	2 mg/m ³	Short-term exposure limit, (EH40/2005 Workplace exposure limits)

8.2. Exposure controls



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Personal protective equipment

- Respiratory protection : No special protective equipment required.
- Hand protection : PVC or nitrile-rubber gloves
- Eye protection : Safety glasses, , or:, Goggles
- Skin and body protection : lightweight protective clothing
- 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
- Form : Soluble concentrate
- Colour : brown
- Odour : amine-like

Start of crystallisation : -20 °C

Flash point : > 100 °C

Auto-ignition temperature : >400 °C

Vapour pressure : 2.3E+00 Pa
(mecoprop-P)

Density : 1.24 g/cm³
at 20 °C

Water solubility : completely soluble

pH : 9

Partition coefficient: n-octanol/water : log POW = 0.02
at 20 °C



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(pH 7), (mecoprop-P)

log POW = -0.18
at 20 °C

(pH 9), (mecoprop-P)

Viscosity, dynamic : ca.33 mPa.s
at 20 °C

9.2. Other information

none

10. STABILITY AND REACTIVITY

10.1. Reactivity

no data available, not applicable

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

Incompatible with acids.

10.6. Hazardous decomposition products

none

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute oral toxicity : LD50 rat



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Dose: 500 - 2,000 mg/kg

- Acute dermal toxicity : LD50 rat
Dose: > 4,000 mg/kg
- Acute inhalation toxicity : LC50 rat
Exposure time: 4 h
Dose: > 5.4 mg/l
- Skin irritation : Result: irritating
- Eye irritation : rabbit
Result: Severe eye irritation
Remarks: Risk of serious damage to eyes.
- Sensitisation : Result: Did not cause sensitization.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

- Toxicity to fish : LC50
Dose: > 100 mg/l
Testing period: 96 h
Test substance: (mecoprop-P)
- Toxicity to daphnia : LC50
Dose: > 91 mg/l
Testing period: 48 h
Test substance: (mecoprop-P)
- Toxicity to algae : EC50 Toxicity to algae
Dose: 16.2 mg/l
Exposure time: 72 h
Test substance: (mecoprop-P)
- EC50 Lemna gibba (Duckweed)
Dose: 1.6 mg/l
Test substance: (mecoprop-P)



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12.2. Persistence and degradability

Biodegradability : Readily biodegradable.

Stability in soil : DT50: 6.3 - 8.2 d
(mecoprop-P)

12.3. Potential bioaccumulation

Bioaccumulation : Does not bioaccumulate.

12.4. Mobility in soil

Koc = 135 - 167 (mecoprop-P)

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 : Dispose of in accordance with local 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.

15.2. Chemical Safety Assessment

none



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16. OTHER INFORMATION

Print Date : 2014/01/24

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.