



SAFETY DATA SHEET

according to regulation (EC) no 1907/2006

Mircam Plus

Version 4 (UK)

Issue date 11/02/2009

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

Product information

Trade name : **Mircam Plus**

Usage : herbicide

Company : Nufarm UK Limited
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United Kingdom

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2. HAZARDS IDENTIFICATION

Harmful in contact with skin and if swallowed.
Irritating to eyes and skin.
Harmful to aquatic organisms.
May cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Aqueous solution of the dimethylammonium salt
MCPA/Mecoprop-P/Dicamba 256.25/43.3/19.5 g/l

Components	CAS-No.	EINECS-No. ELINCS-No.	Symbol(s)	R-phrases(s)	Concentration (w/w)
MCPA-K	5221-16-9	226-015-4	Xn	R20/21/22	23.0 %
Mecoprop-P K	66423-05-0		Xn, N	R22, R41, R51/53	4.0 %
Dicamba-K	10007-85-9	233-002-7	Xi	R36, R52/53	1.8 %

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 : Remove and wash contaminated clothing before re-use. Wash off with soap and water. If symptoms persist, call a physician.

Inhalation : Move to fresh air. Oxygen or artificial respiration if needed. If symptoms persist, call a physician.

Ingestion : Never give anything by mouth to an unconscious person. Do



NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician.

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, Carbon dioxide (CO₂), Alcohol-resistant foam, Dry powder
- Extinguishing media which shall not be used for safety reasons : none
- 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). Sweep up and shovel.
- Additional advice : Never return spills in original containers for re-use.

7. HANDLING AND STORAGE

Handling

Safe handling advice : 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. Keep in a well-ventilated place.

Advice on common storage : Keep out of reach of children. Keep away from food, drink and



animal feeding stuffs.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

- Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.
- Hand protection : PVC or nitrile-rubber gloves
- Eye protection : Safety glasses, or, Goggles
- Skin and body protection : protective suit
- Hygiene measures : Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Handle in accordance with good industrial hygiene and safety practice for diagnostics.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

- Physical state : liquid
- Colour : brown
- Odour : slight phenolic

Other data

- Boiling point/boiling range : 100 °C
- Flash point : > 100 °C
- Vapour pressure : 4E-04 Pa
at 32 °C
(MCPA)
- 4E-04 Pa
at 20 °C
(mecoprop-P)
- 1.7E-03 Pa
at 25 °C
(Dicamba)



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Density	:	1.09 g/cm ³ at 20 °C
Water solubility	:	completely miscible
pH	:	8 - 9.5
Partition coefficient: n- octanol/water	:	log POW = 0.71 (MCPA)
		log POW = 2.8 (mecoprop-P)
		log POW = 1.88 (Dicamba)
Viscosity, dynamic	:	15.5 mPa.s

10. STABILITY AND REACTIVITY

Thermal decomposition	:	No decomposition if stored and applied as directed.
Conditions to avoid	:	No decomposition if stored and applied as directed.
Materials to avoid	:	Acids, Strong acids

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	:	LD50 rat Dose: 962 mg/kg Test substance: (MCPA)
		LD50 rat Dose: 431 - 1,050 mg/kg Test substance: (mecoprop-P)
		LD50 rat Dose: 1,707 mg/kg Test substance: (Dicamba)



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- Acute dermal toxicity : LD50 rat
Dose: > 4,000 mg/kg
Test substance: (MCPA)
- LD50 rat
Dose: > 4,000 mg/kg
Test substance: (mecoprop-P)
- LD50 rabbit
Dose: > 2,000 mg/kg
Test substance: (Dicamba)
- Acute inhalation toxicity : LC50 rat
Exposure time: 4 h
Dose: 6.36 mg/l
Test substance: (MCPA)
- LC50 rat
Exposure time: 4 h
Dose: > 5.6 mg/l
Test substance: (mecoprop-P)
- LC50 rat
Exposure time: 4 h
Dose: > 9.6 mg/l
Test substance: (Dicamba)
- Skin irritation : Classification: Irritating to skin.
- Eye irritation : Classification: Irritating to eyes.
- Sensitisation : Result: Not sensitizing to skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

- : LD50 Toxicity to birds
Dose: 270 mg/kg
Test substance: (MCPA)
- : LD50 Toxicity to birds
Dose: 2,000 mg/kg



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Testing period: 8 d
Test substance: (Dicamba)

: Bee
Test substance: (MCPA)
Not toxic to bees.
Value ($\mu\text{g}/\text{Species}$): > 200

: Bee
Test substance: (mecoprop-P)
Not toxic to bees.

: LD50 Bee
Test substance: (Dicamba)
Not toxic to bees.
Value ($\mu\text{g}/\text{Species}$): > 100

Toxicity to fish : LC50 Toxicity to fish
Dose: 50 mg/l
Testing period: 96 h
Test substance: (MCPA)

LC50 Toxicity to fish
Dose: > 100 mg/l
Testing period: 96 h
Test substance: (mecoprop-P)

LC50 Toxicity to fish
Dose: 135 mg/l
Testing period: 96 h
Test substance: (Dicamba)

Toxicity to daphnia : LC50 Daphnia
Dose: > 190 mg/l
Testing period: 48 h
Test substance: (MCPA)

LC50 Daphnia
Dose: > 270 mg/l
Testing period: 48 h
Test substance: (mecoprop-P)

LC50 Daphnia
Dose: 110 mg/l
Testing period: 48 h
Test substance: (Dicamba)



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Toxicity to algae : EC50 Toxicity to algae
Dose: 57 mg/l
Exposure time: 72 h
Test substance: (MCPA)

EC50 Toxicity to algae
Dose: 16.2 mg/l
Exposure time: 72 h
Test substance: (mecoprop-P)

EC50 Toxicity to algae
Dose: 250 mg/l
Exposure time: 120 h
Test substance: (Dicamba)

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 : Do not re-use empty containers. Do not dispose with household waste. 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-Number :

ADR/RID :

Not a dangerous substance as defined in the above regulations.

IMDG :

Not a dangerous substance as defined in the above regulations.



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IATA-DGR :

Not a dangerous substance as defined in the above regulations.

15. REGULATORY INFORMATION

Symbol(s)	: Xn	Harmful
R-phrase(s)	: R21/22 R36/38 R52/53	Harmful in contact with skin and if swallowed. Irritating to eyes and skin. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	: S26 S36/37	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves.

16. OTHER INFORMATION

Print Date : 02/11/2009

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

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

- R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.
- R22 - Harmful if swallowed.
- R41 - Risk of serious damage to eyes.
- R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R36 - Irritating to eyes.
- R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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