

Hygeia Garden Care

MATERIAL SAFETY DATA SHEET ACTIVE LAWN WEEDKILLER

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name: Active Lawn Weedkiller

Marketing Company: Hygeia Garden Care, Industrial Estate, Station Road, Whittlesey, Cambs. PE7 2EY
Tel: 01733-204019 Fax: 01733-204162 Website: www.hygeia.ie

Emergency No: National Poisons Information Service (Birmingham Centre)
City Hospital, Birmingham B18 7QH, UK
Tel: -44-121-5074123 Fax: -44-121-5075620 Website: www.npis.org

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Substance Name</u>	<u>CAS No.</u>	<u>EINECS No.</u>	<u>Class</u>	<u>Weight %</u>
(R) and (S)-2-(4-Chloro-2-methyl phenoxy) propionic acid, potassium salt (CMPP-P K)	66423-05-0		Xn; R21/ R22 Xi; R38-41 N; R51/53	5-10%
(4-chloro-2-methylphenoxy) acetic acid, potassium salt (MCPA K)	5221-16-9	226-015-4	Xn; R22 Xi; R36	5-10%
3,6-dichloro-2-methoxy-benzoic acid (Dicamba)	1918-00-9	217-635-6	Xn; Xi; R22, R41 R52/53	1-5%
Potassium hydroxide	1310-58-3	215-181-3	C; R22, R35	0-0.5%

3. HAZARD IDENTIFICATION

Main Hazards: Irritating to eyes. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

Eye Contact: If substance has got into the eyes, immediately wash out with plenty of water for at least 10 minutes, maintaining eyelids open. Protect unharmed eye. Take care not to wash the chemical from one eye into the other. Obtain medical attention immediately (show this Safety Data Sheet).

Skin Contact: Remove contaminated clothing immediately. If skin contamination occurs wash immediately with plenty of clean, gently flowing water for at least 10 minutes. Repeat skin decontamination process until all signs of chemicals have gone. Obtain medical attention immediately (show this Safety Data Sheet).

Ingestion: If ingestion is suspected, do not induce vomiting. If conscious, drink plenty of water. Obtain medical attention immediately (show this Safety Data Sheet).

Inhalation: Move to fresh air. If there is breathing difficulty or coughing, keep patient at rest seated in position of maximum comfort. Obtain medical advice immediately (show this Safety Data Sheet).

Hygeia Garden Care

MATERIAL SAFETY DATA SHEET ACTIVE LAWN WEEDKILLER
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5. FIRE-FIGHTING MEASURES

- Extinguishing Media:** Extinguish with carbon dioxide, dry chemical, foam or waterspray.
- Unsuitable Extinguishing Media:** None.
- Special Hazards of Product:** May give off toxic fumes in a fire.
- Special Protective Equipment for Firefighters:** As for all fires involving chemicals: chemical protection suit, suitable gloves for firefighters, boots and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions:** Wear appropriate protective clothing (see Section 8).
- Environmental Precautions:** Do not allow product to enter drains or watercourses.
- Methods for Cleaning Up:** Soak up with inert absorbent material, place in suitable labelled containers and dispose as hazardous waste. Where appropriate, refer to Sections 8 and 13.

7. HANDLING AND STORAGE

- Handling:** When using do not eat, drink or smoke.
- Storage:** Keep containers tightly closed in a dry, cool and well-ventilated place to which children do not have access. Keep away from food, drink and animal feedstuff.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Occupational Exposure Standards:

Chemical Name	National Occupational Exposure Limits
(R) and (S)-2-(4-chloro-2-methylphenoxy) propionic acid, potassium salt (CMPP-PK)	WEL (8 hr exposure limit): 10 mg/m ³ WEL (15 min exposure limit): 20 mg/m ³
(4-chloro-2-methylphenoxy) acetic acid, potassium salt (MCPA)	WEL (8 hr exposure limit): 10 mg/m ³ WEL (15 min exposure limit): 20 mg/m ³
3,6-dichloro-2-methoxy benzoic acid (Dicamba)	None assigned in current Irish edition of the 2002 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001.
Potassium Hydroxide	WEL (15 min limit ppm): mg/m ³ :2

Hygeia Garden Care

MATERIAL SAFETY DATA SHEET ACTIVE LAWN WEEDKILLER
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Engineering Control Measures:	The usual precautionary measures for handling chemicals should be observed.
Hygiene Measures:	When using do not eat, drink or smoke. Shower or bathe at end of working.
Respiratory Protection:	In case of insufficient ventilation wear suitable respiratory equipment.
Skin and Body:	Wear suitable protective clothing.
Hands:	Wear chemical resistant gloves.
Eyes:	Wear suitable eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear yellow/brown liquid
Odour:	Slight
pH:	(9-11.5)
Specific Gravity:	1.1 g/ml @ 20°C (typical)
Boiling Point:	No data available
Melting Point/Range:	Not applicable, aqueous solution
Decomposition Temp.:	No data available
Flash Point:	No data available
Auto Ignition Temp.:	No data available
Flammability (solid, gas):	No data available
Explosive Properties:	None known
Oxidising Properties:	None known
Vapour Pressure:	No data available
Bulk Density:	Not applicable, aqueous solution
Solubility:	Water Solubility: Soluble in water Fat/Solvent Solubility: No data available
Partition Coefficient:	(MCPA) -0.71 @ pH 7 (CMPP-P) Log P _{ow} = -0.39 (Dicamba) Log P _{ow} = 0.7 (Water); Log P _{ow} = -1.9 (buffer pH 7)
Viscosity:	No data available

10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage conditions.
Conditions to Avoid:	Avoid direct heat. Protect from frost.
Materials to Avoid:	Avoid strong acids and oxidising agents.
Hazardous Decomposition Products:	May generate toxic fumes of carbon dioxide, and carbon monoxide.

Hygeia Garden Care

MATERIAL SAFETY DATA SHEET ACTIVE LAWN WEEDKILLER

11. TOXICOLOGICAL INFORMATION

Information on MCPA K 400 g/l AI

Acute Toxicity - Ingestion: Harmful if swallowed. LD₅₀/oral/rat = 1662 mg/kg.
- Skin Contact: LD₅₀/dermal/rat = >2000 mg/kg. Classified by Chemicals (Hazard Information and Packaging for Supply) Regulations as Harmful in contact with Skin.
- Eye Contact: Severe eye irritation. Risk of serious damage to eyes.
- Inhalation: LC₅₀/inhalation/4h/rat = >5.21 mg/l. Classified by Chemicals (Hazard Information and Packaging for Supply) Regulations as Harmful by Inhalation.

Information on CMPP-P K 600 g/l AI

Acute Toxicity - Ingestion: LD₅₀/oral/rat = 847 mg/kg. Harmful if swallowed.
- Skin Contact: LD₅₀/dermal/rat = 1460 mg/kg. Harmful in contact with skin.
- Eye Contact: Risk of serious damage to eyes.
- Inhalation: No data is available on the product itself. For Mecoprop-P LC₅₀/inhalation/4h/rat = >0.87 mg/l. Harmful by inhalation.

Information on Dicamba Technical (≥ 97% w/w)

Acute Toxicity: LD₅₀/oral/rat 2812 mg/kg.
LD₅₀/dermal/rat >2000 mg/kg.
LC₅₀/inhalation/4h/rat 2.33 mg/l air.
Eye Irritation: Corrosive.
Skin Irritation: Non irritant.

12. ECOLOGICAL INFORMATION

Information on MCPA K 400 g/l AI

Mobility: Fairly mobile, but rapidly degraded in aerobic soils.
Persistence & Degradability: Rapidly degraded in aerobic soils (aerobic half-life MCPA = 24 days).
Bioaccumulation: Potential for bioaccumulation is low based on Log P_{ow}. (MCPA Log P_{ow} = -0.71 @ pH 7).
Ecotoxicity Effects: LC₅₀/96h/Rainbow Trout = 101 mg MCPA DMA 500 g/l ai
EC₅₀/48h/Daphnia = 78 mg MCPA DMA 500 g/l ai

Information on CMPP-P K 600 g/l AI

Mobility: Fairly mobile, but rapidly degraded in aerobic soils.
Persistence & Degradability: Rapidly degraded in aerobic soils (half-life approx. 8 days).
Bioaccumulation: Potential for bioaccumulation is low based on Log P_{ow}. (CMPP-P Log P_{ow} = -0.39 @ pH 7).
Ecotoxicity Effects: For MCPP-P LC₅₀/96h/Rainbow Trout = >150 mg/l.

Information on Dicamba Technical (≥ 97% w/w)

LC₅₀/96h/Rainbow Trout >97.7 mg/l.
LC₅₀/96h/Bluegill Sunfish >99 mg/l.
Acute LD₅₀/oral/Mallard Duck 2000 mg/kg.
Bee Toxicity: Not toxic to bees. LD₅₀ > 100 µg/bee.
Aquatic Invertebrates: Daphnia magna EC₅₀/48h >101 mg/l.
Soil: DT₅₀ < 14 days, principal metabolite being 3,6-dichlorosalicylic acid.

Hygeia Garden Care

MATERIAL SAFETY DATA SHEET ACTIVE LAWN WEEDKILLER
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13. DISPOSAL CONSIDERATIONS

Product Disposal: Dispose of according to local and national regulations.

Container Disposal: Triple rinse containers with water and dispose of according to local and national regulations.

14. TRANSPORT INFORMATION

Not classified as hazardous for road transport under ADR.

15. REGULATORY INFORMATION

Contains: Potassium salts of MCPA , CMPP-P and Dicamba.

Symbol(s): Not Classified.

Risk Phrase(s): Not Classified.

Safety Phrase(s): FS57 - Keep off skin.
FS17 - Wash hands and exposed skin after use.
FS2 - Keep away from children and pets.
FS51 - Harmful to fish and other aquatic life. Do not contaminate ponds or streams.
S29 -Do not empty into drains.
S49 - Keep only in the original container.
S7 - Keep container tightly closed.

16. OTHER INFORMATION

Text of R Phrases mentioned in Section 2: R22 - Harmful if swallowed.
R21/22 - Harmful if swallowed and in contact with skin.
R36 - Irritating to eyes.
R38 - Irritating to eyes.
R35 - Causes severe burns.
R41 - Risk of serious damage to eyes.
R51/53 - Toxic to aquatic organisms. May cause long term adverse effects in the aquatic environment.
R52/53 - Harmful to aquatic organisms. May cause long term effects in the aquatic environment.

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, release and is not to be considered a warranty of 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.