

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
Email: services@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)-2-(4-Chloro-2-methyl phenoxy) propionic acid, potassium salt (CMPP-P K)	66423-05-0	240-539-0	Xn; R22 Xi; R41 N; R51/53	5-10%
(4-chloro-2-methylphenoxy) acetic acid, potassium salt (MCPA K)	5221-16-9	226-015-4	Xn; R20/21/22	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).

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5. FIRE-FIGHTING MEASURES

- Extinguishing Media:** Extinguish with carbon dioxide, dry chemical, foam or waterspray.
- Unsuitable Extinguishing Media:** None known.
- 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
(4-chloro-2-methylphenoxy) acetic acid, potassium salt (MCPA K)	WEL (8 hr TWA) : 10 mg/m ³ WEL (15 min STEL) : 20 mg/m ³
(R)-2-(4-chloro-2-methylphenoxy) propionic acid, potassium salt (CMPP-P K)	WEL (8 hr TWA) : 10 mg/m ³ WEL (15 min STEL) : 20mg/m ³
3,6-dichloro-2-methoxy benzoic acid,	OEL: 10 mg/m ³
Potassium Hydroxide	OELV (15-minute reference period) : 2 mg/m ³

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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.
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 @ pH 7 (Dicamba) Log P _{ow} = -1.9 (Octanol/Water); 25°C; pH 8.9
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, strong bases and oxidising agents.
Hazardous Decomposition Products:	May generate toxic fumes of carbon dioxide, and carbon monoxide.

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11. TOXICOLOGICAL INFORMATION

Information on MCPA K 400 g/l AI

Acute Toxicity: IHL Rat LC₅₀: >5.21 mg/l
ORL Rat LD₅₀: 1662 mg/kg
SKN Rabbit LD₅₀: >2000 mg/kg

Routes of Exposure: Refer to Section 4 of MSDS for routes of exposure and corresponding symptoms.

Information on CMPP-P K 600 g/l AI

Acute Toxicity: IHL Rat LC₅₀: >5.4 mg/l
ORL Rat LD₅₀: 500-2000 mg/kg
SKN Rat LD₅₀: >2000 ml/kg

Information on Potassium Hydroxide

Toxicity: ORL Rat LD₅₀: 273 mg/kg

Routes of Exposure: Refer to Section 4 of MSDS for routes of exposure and corresponding symptoms.

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

Acute Oral Toxicity	LD₅₀: 1707 mg/kg (rat)	OECD 401
Acute Dermal Toxicity	LD₅₀: >2000 mg/kg (rat)	OECD 402
Acute Inhalation Toxicity	LC₅₀: 4.46 mg/l (rat; 4 h; male)	OECD 403
Acute Skin Irritation:	Non irritant (rabbit; assessment according to 2001/59/EC)	OECD 404
Acute Eye Irritation:	Highly irritant (rabbit; assessment according to 2001/59/EC)	OECD 405
Skin Sensitization:	Not sensitizing (guinea pig; assessment according to 2001/59/EC; Maximization test)	OECD 406
Mutagenic Potential in Vitro:	Negative (Ames test)	OECD 471
	Negative (cytogenetic test; CHO cells)	OECD 473
	Negative (gene mutation test; lymphoma cells)	OECD 476
Mutagenic Potential in Vivo:	Negative (mouse; micronucleus test)	OECD 474

12. ECOLOGICAL INFORMATION

Information on MCPA K 400 g/l AI

Mobility: Readily absorbed into soil.
Persistence & Degradability: Biodegradable.
Bioaccumulative Potential: No bioaccumulation potential.
Other Adverse Effects: Negligible ecotoxicity.

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Information on CMPP-P K 600 g/l AI

Ecotoxicity:	Algae 72 h; IC ₅₀ : 204 mg/l (MCP-p-DMA) Daphnia 48 h; EC ₅₀ : 272 mg/l (MCP-p DMA) Fish Rainbow Trout 96 h; LC ₅₀ : 127 mg/l (MCP-p DMA)
Mobility:	Fairly mobile but rapidly degraded in aerobic soils.
Persistence & Degradability:	Rapidly biodegradable.
Bioaccumulative Potential:	Potential for bioaccumulation is low based on log Pow.
Other Adverse Effects:	Toxic to aquatic organisms.

Information on Dicamba Technical

Acute Toxicity to Fish	LC ₅₀ : 135.4 mg/l (Salmo gairdneri (Rainbow trout); 96 h) LC ₅₀ : 135.3 mg/l (Lepomis macrochirus (bluegill); 96 h)
Growth Inhibition, Algae	
Selenastrum capricornutum (green algae); 72 h	EbC ₅₀ : >3.7 mg/l EPA/FIFRA 123-2
Anabaena flos-aquae (bluegreen algae); 72 h	EbC ₅₀ : 43.14 mg/l EPA/FIFRA 123-2
Navicula pelliculosa (freshwater diatom); 72 h	ErC ₅₀ : 44.85 mg/l EbC ₅₀ : 2.1 mg/l EPA/FIFRA 123-2
Lemna gibba (duckweed); 14 day(s)	EC ₅₀ : >3.8 mg/l EPA/FIFRA 123-2
Myriophyllum spicatum (Eurasian watermilfoil); 26 day(s)	EC ₅₀ : >0.45 mg/l (Static conditions)
Toxicity to Aquatic Invertebrates	EC ₅₀ : 110.7 mg/l (Daphnia magna (water flea); 48 h)
Toxicity to Bacteria	IC ₅₀ : >500 mg/l (act. sewage sludge; 3 h) OECD 209
Toxicity to Birds	LD ₅₀ : 216 mg/kg (bobwhite quail) EPA 71-1

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.

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