

MATERIAL SAFETY DATA SHEET

4Farmers Turf Control Selective Herbicide

Date of Issue: September 4th 2009

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND SUPPLIER

Product name: 4Farmers Turf Control Selective Herbicide
Other names: None
Product Code: Not available
Recommended use: For the control of broadleaf in turf.
Supplier: 4Farmers Pty Ltd
ABN: 38 593 437 267
Address: 1/70 McDowell St, Welshpool.
Australia 6106
Telephone: (08) 9356 3445
Facsimile: (03) 9356 3447
Website: www.4farmers.com.au
Contact: Technical Manager (08) 9356 3445

2. HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE – NON-DANGEROUS GOOD
Risk of eye damage. Harmful if swallowed. Irritating to skin.

Hazard designation: Hazardous (National Occupational Health and Safety Commission – NOHSC)

Risk Phrases: R41 – Risk of serious eye damage
R22 – Harmful if swallowed
R38 – Irritating to skin

Safety phrases: See sections 4,5,6,7,8,9,13

ADG classification: Not “dangerous goods” for transport by road or rail according to the Australian Code for the transport of dangerous goods by Road and Rail.

SUSDP
Classification: Schedule 5 (Standard for the Uniform Scheduling of Drugs and Poisons)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS Number:	Concentration (g/L):
MCPA present as the potassium salt	[94-74-6]	300
Clopyralid	[1702-17-6]	20
Diffenican	[83164-33-4]	15
Other ingredients	(Non-hazardous)	615

MATERIAL SAFETY DATA SHEET
4Farmers Turf Control Selective Control

Date of Issue: September 4th 2009

4. FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or poisons Information Centre (telephone 13 11 26), and Follow the advice given. Show this Material Safety Data Sheet to a doctor.

Inhalation: Remove victim to fresh air. Seek medical advice

Skin contact: If product on skin remove contaminated clothing and immediately wash area with plenty of Soap and water. Obtain medical advice if symptoms occur

Eye contact: If product in eyes, wash eyes immediately with copious quantities of water for at least 15 minutes. Seek medical assistance if irritation develops.

Ingestion: If swallowed wash out mouth with water. Keep patient at rest. Seek immediate medical Assistance.

First Aid Facilities: Ensure washing facilities are available – including eyewash station.

Symptoms: Local: The product causes irritation of eyes, skin and mucous membranes.
Systemic: mild acidosis, tachycardia, irregular cardiac activity, low blood pressure, Circulatory collapse, cough, shortness of breath, nausea, vomiting, diarrhea, abdominal Pain, rhabdomyolysis, somnolence,coma, fever, convulsions

Medical attention: Treatment
Basic aid, decontamination, symptomatic treatment and if necessary administration of antidote.
Note for physicians
In the event of a mouthful or more being ingested, the following measures should be Considered:
Treat large intakes with gastric lavage, and charcoal administration. Observe specific Parameters: blood pressure, levels of MCPA in plasma and urine, PH in urine. Elimination by dialysis (forced alkaline diuresis). There is no specific antidote.

5. FIRE FIGHTING MEASURES

Extinguishing media: Extinguish fire using: Water, Fog, Foam, Dry agent.

Hazards from Combustion: In case of fire, gaseous oxides of carbon and nitrogen, hydrogen fluoride and hydrogen chloride may be emitted.

Products:

Precautions for fire Fighters: Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1716), as toxic and irritating decomposition products may be produced in a fire. If It can be done safely, remove intact containers from the fire. Otherwise, use water spray to Cool them. Bund area to prevent contamination of water sources. Dispose of fire control Extinguishing agent and spillage later in a safe manner. Do not release contaminated Water into the environment.

MATERIAL SAFETY DATA SHEET
4Farmers Turf Control Selective Herbicide

Date of Issue: September 4th 2009

6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled material or contaminated surfaces. When dealing with the spillage do not eat, drink or smoke and wear personal protective clothing and equipment as detailed in 'Personal Protection' section. Keep people and animals away. Prevent spillage from entering drains, sewers or watercourses. Contain/absorb spillage in sand/earth or other suitable inert material. Transfer collected material to sealable containers. Seal and label containers ready for disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

7. HANDLING AND STORAGE

Handling: Keep out of reach of children. Avoid contact with the eyes, skin and clothing or inhalation of product.

Storage: Store in the closed original container in a dry, cool well-ventilated area, out of direct sunlight. Store in a locked room or place away from children, animals, food, feedstuffs, seed and fertilizers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure standards: No occupational exposure standards have been established for the product or its ingredients.

Engineering controls: Use in a well-ventilated area only.

Personal Protective Equipment: Eyes: Wear face shield.

Equipment/Clothing: When preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat.

Gloves: Elbow-length PVC gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Viscous light brown liquid.

Odour: Negligible (very slight sweet smell)

Vapour pressure: Diflufenican 4.25×10^{-3} mPa; Clopyralid 1.33 mPa (pure); MCPA 2.3×10^{-2} mPa

Vapour density: Not determined

Boiling Point: Not determined

Solubility: Dispersible in water

Density: 1.170 g/cm^3 at 20°C

PH (undiluted): 10

Flash Point: Not determined

Flammability: Not determined

(explosive) limits:

Auto-ignition: Not available

Temperature:

Octanol/water: Not available

Partition coefficient:

Formulation: suspension concentrate

MATERIAL SAFETY DATA SHEET
4Farmers Turf Control Selective Herbicide

Date of issue: September 4th 2009

10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions of use.
Hazardous None known
Polymerisation:
Conditions to avoid Avoid extreme heat and direct sunlight
Incompatible Not available
Materials:
Hazardous No hazards are expected if the material is handled, stored and used according to
Decomposition instruction and government regulation.
Products:

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

Inhalation: Harmful if inhaled. Avoid breathing concentrated vapour or spray mist.
Skin Contact: Will irritate the skin
Eye Contact: Risk of serious damage to eyes
Ingestion: Harmful if swallowed
Other: None

ANIMAL TOXICITY DATA – PRODUCT: No data available for the product.
ANIMAL TOXICITY DATA – ACTIVE INGREDIENTS:

Acute:

Oral Toxicity: LD⁵⁰ rat: 2675-3738 mg/kg (Clopyralid)
LD⁵⁰ rat: 900-1160 mg/kg (MCPA)
LD⁵⁰ rat: > 2000 mg/kg (Diflufenican)

Dermal toxicity: LD⁵⁰ rabbit: > 2000 mg/kg (Clopyralid)
LD⁵⁰ rat: 4000 mg/kg (MCPA)
LD⁵⁰ rat: > 2000 mg/kg (Diflufenican)

Inhalation toxicity: LC⁵⁰ (4h) rat: > 0.38 mg/L (MCPA)
LC⁵⁰ (4h) rat: > 6.36 mg/L (MCPA)
LC⁵⁰ (4h) rat: > 2.34 mg/L (Diflufenican)

Skin irritation: Mild skin irritant

Eye irritation: Severe eye irritant

Sensitisation: No data available for product.

Chronic:

In 24 month feeding trials (technical MCPA), the no effect level for rats was 1.3 mg/kg bw/d and for mice was 18 Mg/kg bw/d. Non-mutagenic.

MATERIAL SAFETY DATA SHEET
4Farmers Turf Control Selective Herbicide

Date of Issue: September 4th 2009

11. ECOLOGICAL INFORMATION

Dangerous to fish. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.
DO NOT apply under meteorological conditions or from spraying equipment that could be expected to cause spray to Drift onto nearby plants, adjacent crops, croplands or pastures.

Fish Toxicity: Technical MCPA: LC₅₀: 232 mg/L (96h) rainbow trout
 Technical Clopyralid: LC₅₀: 103.5 mg/L (96h) rainbow trout
 Technical Diflufenican: LC₅₀: 56-100 mg/L (96h) rainbow trout

Daphnia toxicity: Technical Clopyralid: EC₅₀ (48hr) 225 mg/L
 Technical Diflufenican: LC₅₀ (48hr) no effect at 10 mg/L
 Technical MCPA: LC₅₀>100 mg/L

Toxicity to algae: Technical Clopyralid: EC₅₀ (96hr) *Selenastrum capricornutum* cell count 6.9 mg/L
 Technical Diflufenican: No growth inhibition of algae at 10 mg/L
 Technical MCPA: No information available

Bird Toxicity: Technical MCPA: Acute oral LD₅₀: 377 mg/kg bobwhite quail
 Technical Clopyralid: Acute oral LD₅₀: >2000 mg/kg bobwhite quail
 Technical Diflufenican: Acute oral LD₅₀: > 2150 mg/kg bobwhite quail

Bee Toxicity: Technical Clopyralid: Non-toxic to bees.
 Technical Diflufenican: Non toxic by ingestion or contact
 Technical MCPA: LD₅₀ 0.104 mg/bee

Other: None

Environmental fate, Persistence and Degradation: Diflufenican half life varies from 15 to 30 weeks depending on soil type and water content.
 MCPA-duration of residual activity in soil is c. 3 to 4 months following an application of 3 kg/ha

12. DISPOSAL CONSIDERATIONS

Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight. Triple or preferably Pressure rinse containers before disposal. Add rinsings to the spray tank. Do not dispose of undiluted chemicals on-Site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, Break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the empty containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

MATERIAL SAFETY DATA SHEET
4Farmers Turf Control Selective Herbicide

Date of issue: September 4th 2009

13. TRANSPORT INFORMATION

UN number: Not applicable
Proper shipping: Not applicable
Name
Class and Subsidiary Risk: Not "dangerous goods" for transport by road and rail according to the Australian Code for the Transport of Dangerous goods by road and Rail.
Packing Group: Not applicable
EPG: Not applicable
Hazchem code: Not applicable

14. REGULATORY INFORMATION

Registered according to the agricultural and Veterinary Chemicals Act 1988

Australian Pesticides and Veterinary Medicines Authority Approval Number: 62327

15. OTHER INFORMATION

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that the appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

END OF MSDS