



COLIN CAMPBELL (CHEMICALS) PTY. LTD.

MATERIAL SAFETY DATA SHEET

Date of Issue: 1 January 2008

1) IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: CAMPBELL METHAR TRI-KOMBI HERBICIDE
Other Names: None
Chemical Group: Phenoxy herbicide.
Recommended Use: Herbicide for use on turf.
Supplier Details: Colin Campbell (Chemicals) Pty Ltd ABN 29 000 045 590
5 Blackfriar Place
Wetherill Park NSW 2164
Telephone: (02) 9725 2544
Fax: (02) 9604 7768
Email: cccsyd@campbellchemicals.com.au
Website: www.campbellchemicals.com.au
Contact: Product Development Manager – (02) 9725 2544
Emergency Telephone Number: (02) 9725 2544 – 8am to 6pm Monday to Friday.

2) HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE - NON DANGEROUS GOOD

Hazardous classification: Hazardous according to the criteria of the National Occupational Health & Safety Commission (NOHSC)

Risk phrases: R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.
R36 – Irritating to eyes.

Safety phrases: See sections 4,5,6,7,8,10,12,13

ADG Classification Not a Dangerous good for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

SUSDP classification: 5 (Standard for the Uniform Scheduling of Drugs & Poisons)

3) COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Concentration
Mecoprop as dimethylamine salt	025606-41-1	336g/L
2,4-D as dimethylamine salt	2008-39-1	80g/L
Dicamba as dimethylamine salt	2300-66-5	40g/L
Other ingredients including wetting agents and water	Non hazardous	300-600g/L

4) FIRST AID MEASURES

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

Inhalation: If inhaled remove to fresh air and keep at rest. If not breathing, give artificial respiration.

Skin Contact: Carefully remove contaminated clothing. Wash affected areas with soap and water.



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4) FIRST AID MEASURES continued

Eye contact:	Check and remove any contact lenses. Rinse eyes immediately with clean water for at least 15 minutes and seek medical aid.
Ingestion:	Give a glass of water. Wash mouth out with water. Do NOT induce vomiting. Keep patient at rest and seek medical advice. Loosen tight clothing. Make every attempt to prevent vomit from entering the lungs by careful placement of the patient.
First Aid facilities	Ensure eye wash and safety shower are available.
Medical Attention:	Treat symptomatically.

5) FIRE FIGHTING MEASURES

Extinguishing media	Product is not combustible. Water spray, foam, dry chemical, carbon dioxide (CO ₂)
Hazard from combustion products	In a fire, formation of hydrogen chloride and toxic compounds of carbon and nitrogen can be expected.
Precautions for fighting fires	Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away. If it can be done safely remove intact containers from the fire. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of extinguishing agent and spillage safely later. Do not release contaminated water into the environment.
Hazchem Code	Not applicable.

6) ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled material or contaminated surfaces. Do not smoke, eat or drink during the clean up process. Wear personal protective clothing and equipment as detailed in Section 8 PERSONAL PROTECTION. Keep people and animals away. Contain spill and absorb with earth, sand, clay or other absorbent material. Prevent spilled material from entering drains or watercourses. Collect and store in properly labelled drums for safe disposal. Clean floor with a damp cloth and place it in the drum. Seal drums and label ready for safe 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. Will irritate eyes and skin. Avoid contact with eyes and skin. Do not inhale spray mist. After use and before eating, drinking or smoking wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves and contaminated clothing.
Storage	Store in the closed original container in a dry, cool, well ventilated area. Do not store for prolonged periods in direct sunlight. Store in a locked room away from children, animals, food, animal feed, seed and fertilisers.
Flammability	Not flammable, not combustible.



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8) EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Standards	No exposure standards have been assigned for this product. However, an exposure standard has been set for 2,4-D acid at 10mg/m ³ . Exposure standard – Time Weighted Average (TWA) means the average airborne concentration of a particular substance when calculated over a normal eight hour working day, for a five-day working week
Biological Limit Values	None allocated
Engineering Controls	Control process conditions to avoid contact. Use in a well ventilated area only.
Personal Protective Equipment	Eyes: Safety goggles or face shield Clothing: Wear cotton overalls buttoned at the neck and wrists. Gloves: Elbow length PVC gloves Respiratory: If inhalation of spray mist is likely an AS/NZS 1715/1716 approved respirator should be worn.

9) PHYSICAL AND CHEMICALS PROPERTIES

Appearance:	Translucent red-brown liquid
Odour:	Ammoniacal Fruity
Vapour pressure:	Not available
Vapour density:	Not available
Boiling point:	>100°C
Freezing/Melting point:	<0°
pH:	Not available
Solubility:	Soluble in water
Specific gravity:	1.105 at 20°C
Flash point:	Not applicable
Flammability (explosive) limit:	Not applicable
Auto ignition temperature:	Not applicable
Partition coefficient (octanol/water):	Not available

10) STABILITY AND REACTIVITY

Chemical stability:	Stable under normal conditions of use. Hazardous polymerisation is not possible.
Conditions to avoid:	None under normal conditions
Incompatible materials :	Reaction of the concentrate or spray mix with acids will precipitate solid acids of the active constituents and largely de-activate the product and cause blockages in the spray vat. Addition of a strong alkali such as caustic soda will cause release of dimethylamine vapour. Dimethylamine is moderately toxic, LD ₅₀ (oral, rat) is 700mg/kg and a TLV of 10ppm (TWA) has been set.



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10) STABILITY AND REACTIVITY continued

Hazardous decomposition products: In a fire, formation of carbon and nitrogen compounds and hydrogen chloride can be expected.

Hazardous reactions: Keep away from strong oxidising agents.

11) TOXICOLOGICAL INFORMATION

Inhalation: Low toxicity by inhalation.

Skin contact: Low toxicity by skin contact.

Eye contact: May irritate the eyes. May cause redness and swelling and cloudy vision.

Ingestion: Product toxicity is low, but may be harmful if swallowed in large amounts.

ANIMAL TOXICITY DATA – PRODUCT

Acute:

Oral toxicity LD-50s of product unknown. LD-50 of each component are as follows:

1. **Mecoprop** – Acute oral LD-50 (rat) 930 mg/kg
2. **2,4-D** Acute oral LD-50 (rats) 699 mg/kg
3. **Dicamba** Acute oral LD-50 (rats) 1700 mg/kg

Ingestion of the product in relatively large amounts can result in headache, nausea, lethargy, motor weakness and incoordination.

Dermal toxicity: LD-50s of product unknown. LD-50 of each component are as follows:

1. **Mecoprop** – Acute dermal LD-50 (rat) >4000 mg/kg
2. **2,4-D** - Acute dermal LD-50 (rat) >2000 mg/kg
3. **Dicamba** - Acute dermal LD-50 (rabbits) >2000 mg/kg

Inhalation toxicity: LD-50s of product unknown. LD-50 of each component are as follows:

1. **Mecoprop** – Acute inhalation LC-50 4-hour(rat) >12.5 mg/L
2. **2,4-D** - Acute inhalation LC-50 4-hour(rat) >1.79 mg/L
3. **Dicamba** - Acute inhalation LC-50 4-hour(rat) > 9.6 mg/L

Skin irritation: Mild skin irritant. (dicamba)

Sensitisation: Not sensitising - guinea pig

Chronic:

Repeated absorption of relatively large amounts of 2,4-D presents a risk to liver and kidneys.

Repeated absorption of relatively large amounts of dicamba may cause myotoxic muscular spasms, urinary incontinence and, if excessive, dyspnea, cyanosis and exhaustion. No information currently available on chronic effects of mecoprop.

Not considered mutagenic, teratogenic or carcinogenic.



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12) ECOLOGICAL INFORMATION

Low toxicity to birds, fish, bees and earthworms.

DO NOT contaminate streams, rivers or waterway with Methar Tri Kombi or the used containers.

Ecotoxicity: Toxicity has not been determined for the product. Toxicities for the individual components are included below.

1. Mecoprop - LC₅₀ (Daphnia) 1.4 mg/L
LC₅₀ (mallard duck) >5620 mg/kg
LC₅₀ (bobwhite quail) >5000 mg/kg
LD₅₀ (bobwhite quail) 700 mg/kg
LD₅₀ (Japanese quail) 740 mg/kg
LC₅₀ (rainbow trout) (96h) 124 mg/L
LC₅₀ (bluegill sunfish) (96h) 100 mg/L

Readily biodegradable according to the appropriate OECD test. DT50 8-14 days. No bioaccumulation.

2. 2,4-D - LC₅₀ (Daphnia) 1.4 mg/L
LD₅₀ (mallard duck) >1000 mg/kg
LC₅₀ (rainbow trout) (96 hr) ~100 mg/L
3. Dicamba - LC₅₀ (Daphnia) 110 mg/L
LC₅₀ (rainbow trout and bluegill sunfish) (96 hr) 135mg/L

Environmental fate, persistence and degradability, mobility **Mecoprop** - residual activity in soil about 2 months. Adsorption of mecoprop in soil increases with increased organic matter. Very mobile in a variety of soils. No data on breakdown in surface water and vegetation.
2,4-D - rapid degradation in soil, halflife typically 7 days. Loss from soil primarily by microbial degradation.
Dicamba - loss from soil primarily by microbial degradation.

12) DISPOSAL CONSIDERATIONS

Triple or preferable pressure rinse containers before disposal. Add rinsings to the mixing tank. Do not dispose of undiluted chemical 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 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.

13) TRANSPORT INFORMATION

UN Number: Not applicable
Proper Shipping name: Not applicable
Class and subsidiary risk: Not applicable
Packing Group: Not applicable
EPG: Not applicable
Hazchem code: Not applicable



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14) REGULATORY INFORMATION

Registered under the Agricultural and Veterinary Chemicals Act 1988 (Commonwealth) Australian Pesticides and Veterinary Medicines Authority approval number: 31536

15) OTHER INFORMATION

This MSDS summarises 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 the 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 an appropriate risk assessment can be made the user should contact this company.

END OF MSDS