COLIN CAMPBELL (CHEMICALS) PTY. LTD.

SAFETY DATA SHEET

Date of Issue: 1 December 2016

1) IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	**CAMPBELL SPORTSGROUND HERBICIDE**
Other Names:	Dimethylamine salts of mecoprop (MCPP), MCPA and dicamba.
Chemical Group:	Phenoxycarboxylic herbicide
CAS No.:	
Recommended Use:	Herbicide for use on recreational 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:	13 11 26 (Poisons Information Centre)

2) HAZARDS IDENTIFICATION

This product is classified as : Xi, Irritating. Hazardous according to the criteria of SWA.

GHS classification:	Eye irritation :	Category 2B
GHS Signal Words:	WARNING	
Hazard Statements :	H320 Causes eye irritation	
General Precautionary Statements :	P102 Keep out of reach of children P103 Read label before use.	

Pictograms :

Precautionary statements Prevention:	P262 : Do not get in eyes, on skin, or on clothing.. P264 : Wash contacted areas thoroughly after handling. P270 : Do not eat, drink or smoke when using this product. P281 : Use personal protective equipment as required.

Precautionary statements Response:	P352 : Wash with plenty of soap and water. P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 : If exposed or concerned: Get medical advice. P337+P313 If eye irritation persists: Get medical attention. P370 + P378 : Not combustible. Use extinguishing media suited to burning materials.
Storage :	P402 + P404 : Store in a dry place. Store in a closed container. P403+P235 : Store in a well-ventilated place. Keep cool.
Disposal:	P501 Dispose of contents/container to an approved waste disposal plant.
Other information :	No other information. Hazardous substance according to SWA criteria.

3) COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Concentration
Mecoprop present as dimethylamine salt	93-65-2	336g/L
MCPA present as dimethylamine salt	94-74-6	80g/L
Dicamba present as dimethylamine salt	2300-66-5	40g/L

4) FIRST AID MEASURES

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

If inhaled:	No first aid measures would normally be required. However, if inhalation has occurred and irritation has developed, remove sources of contamination or move victim to fresh air and keep at rest. If irritation persists, contact a Poisons Information Centre or a doctor.
In case of skin contact:	Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) for 10-20 minutes or until product is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watch bands and belts) and completely decontaminate them before reuse or discard. If irritation persists, repeat flushing and seek medical attention.
In case of eye contact:	Check and carefully remove any contact lenses if easy to do so, if easy to do so. Protect unharmed eye. Rinse eyes immediately with clean water for at least 15 minutes and seek medical aid immediately. Keep eye wide open while rinsing.

If swallowed:	DO NOT induce vomiting. Clean mouth with water. Obtain medical attention.
First Aid facilities	Ensure eye wash and safety shower are available.
Medical Attention:	Symptoms may be delayed. The first aid procedure should be established in consultation with a doctor responsible for industrial medicine.

5) FIRE FIGHTING MEASURES

Extinguishing media	Not combustible. Use extinguishing media suited to burning materials.
Hazard from combustion products	The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both) fire gases. There is little risk of an explosion from this product if commercial quantities are involved in a fire.
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 fire residues and contaminated fire extinguishing water in accordance with local regulations. Do not release contaminated water into the environment.
Hazchem Code	Not established

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. Ensure adequate ventilation. 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 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. Protect from frost.

8) EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Standards

TWA (mg/m^3)	STEL (mg/m^3)
Not set	Not set

Exposure limits have not been established by SWA for any of the significant ingredients in this product.

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.

Short Term Exposure Limit (STEL) means the exposure level that may be equalled (but should not be exceeded for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL

Biological Limit Values

None allocated

Engineering Controls

Control process conditions to avoid contact. Use in a well ventilated area only. If natural ventilation is inadequate, use of a fan is recommended.

Personal Protective Equipment

Eyes:	Safety goggles. Eye wash bottle with pure water.
Clothing:	Impervious overalls buttoned to the neck and wrists and a washable hat.
Gloves:	Polyvinyl alcohol or nitrile-butyl-rubber gloves. Before removing gloves clean them with soap and water.
Respiratory:	If inhalation is likely an AS/NZS 1715/1716 approved respirator should be worn.

9) PHYSICAL AND CHEMICALS PROPERTIES

Appearance, Odour and Colour:		Brown-red translucent liquid, ammoniacal fruity odour
Specific Gravity:		1.105 at 20^{O}C
Melting Point:		Not applicable
Solubility (water):		Completely soluble in water.
Flash Point:		No data
Boiling Point:		> 100^{O}C at 100kPa
Vapour Pressure:		No data
Vapour Density:		No data
Percent Volatiles:		No data
Flammability Limits:	**UFL:**	Not determined
	LFL:	Not determined
Autoignition Temperature:		Not applicable – does not burn.
Partition co-efficient, n-octanol/water		No data

10) STABILITY AND REACTIVITY

Chemical stability:	Stable under normal conditions of use and storage.
Conditions to avoid:	Protect this product from sunlight. Store in the original container in a dry, cool, well-ventilated area out of direct sunlight.
Incompatible materials :	Strong acids, strong bases, strong oxidising agents.
Hazardous decomposition products:	This product is likely to decompose only after heating to dryness, followed by further strong heating. Combustion forms carbon monoxide, carbon dioxide, and possibly smoke. May form nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. Carbon monoxide poisoning produced headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgement, and unconsciousness followed by coma and death.
Hazardous reactions:	Stable under recommended storage conditions. No decomposition or hazardous polymerisation reactions if used as directed.

10) TOXICOLOGICAL INFORMATION

Inhalation :	Available data show that this product is not harmful. However, product may be mildly irritating, although unlikely to cause anything other than mild temporary discomfort.
Skin contact:	Available data show that this product is not harmful. However, product may be mildly irritating, although unlikely to cause anything other than mild temporary discomfort.
Eye contact:	This product is an eye irritant. Symptoms may include stinging and reddening of the eyes and watering which may become copious. Other symptoms may also become evident, but if exposure is brief should all disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.
Ingestion:	Significant oral exposure is considered to be unlikely. This product is an oral irritant. Symptoms may include burning sensation and reddening of skin in mouth and throat. Other symptoms may also become evident, but should all disappear once exposure has ceased.
Chronic toxicity:	
Mutagenicity:	Evidence of mutagenicity is not conclusive.
Teratogenicity:	Evidence of mutagenicity is not conclusive.
Reproductive effects:	Evidence of mutagenicity is not conclusive..
Carcinogenicity:	No significant ingredient is classified as carcinogenic by SWA, NTP and IARC.

Specific Target Organ Toxicity: There is no data for specific target organ toxicities.

Acute:

Oral toxicity LD_{50} of product unknown. LD_{50} of each component are as follows:

1. **Mecoprop –** Acute oral LD_{50} (rat) 930 mg/kg
2. **MCPA** Acute oral LD_{50} (rats) 900-1160 mg/kg
3. **Dicamba** Acute oral LD_{50} (rats) 1700 mg/kg

Dermal toxicity: LD_{50} of product unknown. LD50 of each component are as follows:

1. **Mecoprop –** Acute dermal LD_{50} (rat) >4000 mg/kg
2. **MCPA -** Acute dermal LD_{50} (rat, percutaneous)>4000 mg/kg
3. **Dicamba - A**cute dermal LD-50 (rabbits) >2000 mg/kg

Inhalation toxicity: LC_{50} of product unknown. LC50 of each component are as follows:

1. **Mecoprop –**Acute inhalation LC_{50} 4-hour(rat) >12.5 mg/L
2. **MCPA -**
3. **Dicamba -** Acute inhalation LC_{50} 4-hour(rat) > 9.6 mg/L

Skin irritation: Mild skin irritant. (dicamba and MCPA)

Sensitisation: Not sensitising - guinea pig

Chronic:

Repeated absorption of relatively large amounts of MCPA 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.

11) ECOLOGICAL INFORMATION

Low toxicity to birds, fish, bees and earthworms.
DO NOT contaminate streams, rivers or waterway with this product or the used containers.

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

1. **Mecoprop** - LC_{50} (Daphnia) 1.4 mg/L
   LC_{50} (mallard duck) >5620 mg/kg
   LC_{50} (bobwhite quail) >5000 mg/kg
   LD_{50} (bobwhite quail) 700 mg/kg
   LD_{50} (Japanese quail) 740 mg/kg
   LC_{50} (rainbow trout) (96h) 124 mg/L
   LC_{50} (bluegill sunfish) (96h) 100 mg/L

   Readily biodegradable according to the appropriate OECD test. DT50 8-14 days. No bioaccumulation.
2. **MCPA**- LC_{50} (rainbow trout) (96 hr) 232 mg/L

   MCPA is practically nontoxic to freshwater invertebrates, and estuarine and

marine organisms.

3. **Dicamba** – LC_{50} (Daphnia) 110 mg/L
LC_{50} (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. **MCPA** is rapidly degraded by soil microorganisms and it has low persistence, with a reported field half-life of 14 days to 1 month, depending on soil moisture and soil organic matter. The half-life is 5 to 6 days in slightly acidic to slightly alkaline soils. MCPA readily leaches in most soils. It is relatively stable to light breakdown. Rapid degradation in soil, halflife typically 7 days. **Dicamba** - loss from soil primarily by microbial degradation.
Identified harmful effects on environment:	Low toxicity to birds, fish, bees and earthworms. .
Other precautions:	Do not contaminate dams, waterways or sewers with this product.

12) DISPOSAL CONSIDERATIONS

This product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used containers. 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

Not subject to the ADG Code when transported by road or rail in Australia, in packages 500kg(L) or less; or IBCs. Not classified as Dangerous by IATA and IMDG/IMSBC when carried by air or sea transport.

UN Number : Not applicable
Correct shipping name : Not applicable
Hazchem Code : Not applicable
Special provisions: Not applicable
Limited quantities : Not applicable
Dangerous Goods Class : Not applicable
Packing Group : Not applicable
Packing Method: Not applicable

14) REGULATORY INFORMATION

Registered under the Agricultural and Veterinary Chemicals Act 1988 (Commonwealth) Australian Pesticides and Veterinary Medicines Authority approval number: 31538

15) OTHER INFORMATION

Date of revision : 1 December 2016
Reason for revision : Upgrading to GHS format.

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.

END OF SDS