



MATERIAL SAFETY DATA SHEET

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Date of Issue 08/10/01
MSDS No. 1038

STATEMENT OF HAZARDOUS NATURE

Hazardous according to the criteria of Worksafe Australia.

COMPANY DETAILS

Company Scotts Australia Pty. Ltd.
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Emergency Telephone Number Australia: 1800 033 111
New Zealand: 0800 734 607

IDENTIFICATION

Product Name **DEFENDER BINDII-B-GON LAWN WEEDER**
Other Names
Manufacturers Product Code 190391
UN Number Not allocated
Dangerous Goods Class Not a Dangerous Good
Sub-Risk Class -
Packaging Group -
Hazchem Code -
Poisons Schedule S5 - CAUTION
Uses Herbicide

Physical Description /Properties

Appearance & Odour Liquid, clear amber colour liquid with faint sweet odour
Melting point/softening point
Boiling point
Vapour Pressure
Flashpoint
Flammability Limits Not flammable
Solubility in Water Mixes in water. (MCPA -825ppm Dicamba - soluble)
pH
Incompatibility
Specific Gravity 1.069 approximately
Bulk density
Volatile Proportion
Corrosiveness

Ingredients

Ingredient	Chemical Name	CAS Number	Proportion % w/v
Active ingredients	MCPA present as the dimethylamine salt	94-74-6	15%*
	Dicamba present as the dimethylamine salt	1918-00-9	2.5%*
Inerts	Water	7732-18-15	>60%
	Surfactants	Not disclosed	<5%

* as acid equivalent

HEALTH HAZARD INFORMATION**Health Effects***Acute*

Swallowed

Not considered a serious hazard.

Eye

This product may cause eye irritation if contact is prolonged.

Skin

Dermal application of Dicamba on rabbit skin at 100 mg/day (21 days) resulted in slight to moderate irritation. Dicamba caused moderate dermal sensitisation in the guinea pig. Rabbits treated with 0.5g of MCPA in dermal tests showed a slight erythematous effect. The finished product may cause irritation to the skin.

Inhaled

Not considered a serious hazard.

Chronic

After oral administration to mammalian species, Dicamba is rapidly eliminated in the urine of mammals, partly as a glycine conjugate. Studies in rats fed for 2 years with Dicamba at a level of 500ppm in their diet, and dogs fed for 2 years with Dicamba at a level of 50ppm in their diet showed no evidence of adverse effects. Enlarged liver cells were seen in laboratory mice, administered Dicamba orally at 100-10,000 mg/kg diet. A further study was carried out in rats fed with Dicamba at a dose of 0-25mg/kg/day. Treated rats did not differ from untreated controls with respect to the incidence, types and times of appearance of tumors. No adverse teratogenic or reproductive effects were evident in 3-generation studies of Dicamba in rats fed by the oral route at a highest dose of 500 mg/kg in the diet. This chemical was negative in several in vitro microbial tests for genotoxicity, but positive in two in vitro mammalian cell assays.

Rats administered MCPA at 100 mg/kg in their diet for 7 months showed no effects except for kidney enlargement. Rats administered this substance at 200 mg/kg body weight/day on 5 days/week for 2 weeks developed hypolipidaemia and signs of peroxisome proliferation in their livers. The LOEL in these studies was at 100 mg/kg/day. Dogs administered MCPA at 0, 0.15, 0.75, 3.75 mg/kg/day for 1 year showed evidence of renal toxicity at the two highest doses. A 54% inhibition of testicular DNA synthesis was seen in mice administered MCPA at 200mg/kg in their diet.

According to the International Agency for Research on Cancer, there is limited evidence for carcinogenicity of MCPA to humans and inadequate evidence for its carcinogenicity to animals. A cohort study of MCPA-exposed and potentially exposed workers showed a slight excess of deaths from soft tissue sarcoma but the results were not significant. A number of case studies have indicated an increased risk of soft tissue sarcoma and malignant lymphoma in exposed agricultural workers. However, a major cohort study in two Danish chemical plants showed no effects on cancer rates in 4,563 MCPA-exposed workers. There was no evidence of teratogenicity of MCPA in rabbits and rats administered 75 and 125 mg/kg/day via the oral route. Equivocal genotoxicity results were seen in in-vitro studies with MCPA but no significant genotoxic damage was detected in white blood cells of exposed workers.

Given the low concentrations of the active ingredients in this product, it is very unlikely that exposure will be sufficient under normal use situations to result in any adverse long-term health effects. Nevertheless, it is prudent to keep all chemical exposures to as low a level as possible.

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First Aid

Swallowed Induce vomiting using Ipecac Syrup (APF). Seek medical attention if unwell.
Eye Hold eye open and wash continually with water for at least 15 minutes. Lift upper and lower lids to ensure complete irrigation of the eye. Seek medical attention.
Skin Remove contaminated clothing and wash affected area thoroughly with soap and water. If skin is irritated, seek medical attention.
Inhaled Remove patient to fresh air until symptoms are relieved.
First Aid Facilities
Advice to Doctor Treat symptomatically.
Medical conditions which may be aggravated by contact

PRECAUTIONS FOR USE

Exposure Standards No exposure limits have been allocated.
Engineering Controls No specific controls are required.
Personal Protection Safety glasses and rubber gloves are recommended when handling this product to avoid any contamination of eyes and skin. Wash hands thoroughly with soap and water after use.
Flammability This product is not flammable.

SAFE HANDLING INFORMATION

Storage and Transport Store away from seeds, fertilisers, animals and human food stuffs. Store in a cool, dry area. Keep containers securely sealed. Not defined as a Dangerous Good. No special transport requirements necessary.
Spills and Disposal Wear gloves and safety glasses during clean up operation. Absorb spillage with absorbent materials (e.g. sand, vermiculite). Prevent spillage from entering drains or waterways. Place residue in waste containers. Consult State Land Waste Management Authority for disposal.
Fire/Explosion Hazard If this product is involved in fires, toxic fumes of hydrogen chloride or phosgene may be emitted. Fire fighters should wear self contained breathing apparatus.

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OTHER INFORMATION

Environmental Protection
Animal Toxicity Data

Non toxic to bees. Avoid drift onto susceptible plants including grapevines, tomato, capsicum, cotton and many garden plants.

Dicamba
Oral LD50 (rat) 1040mg/kg
Oral LD50 (mouse) 1190mg/kg
Oral LD50 (rabbit) 2000mg/kg
Dermal LD50 (rabbit) >2000mg/kg
Inhalation LC50 (rat) >5.3mg/L
LC50 (bluegill, rainbow trout) >1000mg/L
LC50 (daphnia) >1600mg/L
LD50 (bob white quail) -

MCPA
Oral LD50 (rat) 800mg/kg
Oral LD50 (mouse) 550mg/kg
Oral LD50 (rabbit) -
Dermal LD50 (rabbit) 3400mg/kg
Inhalation LC50 (rat) -4800mg/L
LC50 (bluegill, rainbow trout) 117mg/L
LC50 (daphnia) -
LD50 (bob white quail) 377mg/kg

APVMA Registration No. 53875

CONTACT POINT

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Australia: 1800 033 111
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