



Material Safety Data Sheet

Page: 1 of 5

Infosafe No. NU01B Issue Date : February 2007 ISSUED by NUFARM

Product Name : **KAMBA M Selective Herbicide**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name KAMBA M Selective Herbicide
Product Code 0160
Product Type Group I Herbicide
Company Name NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
Address 103-105 Pipe Road Laverton North
Victoria 3026 Australia
Emergency Tel. 24hr 1800 033 498
Telephone/Fax Number Tel:
(03) 9282-1000
Fax:
(03) 9282-1001
Recommended Use For the control of certain broadleaf weeds in winter cereals, pastures, turf and non-crop areas.
Other Information This MSDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

2. HAZARDS IDENTIFICATION

Hazard Classification HAZARDOUS SUBSTANCE.
NON-DANGEROUS GOODS.
Hazard classification according to the criteria of NOHSC.
Dangerous goods classification according to the Australia Dangerous Goods Code.
Risk Phrase(s) R22 Harmful if swallowed.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
Safety Phrase(s) S13 Keep away from food, drink and animal feeding stuffs.
S2 Keep out of reach of children.
S25 Avoid contact with eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S46 If swallowed, seek medical advice immediately and show this container or label.
Other Information Poisons Schedule S5

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Liquid

Ingredients	Name	CAS	Proportion
	MCPA (present as the dimethylamine salt)	94-74-6	340 g/L
	Dicamba (present as dimethylamine salt)	1918-00-9	80 g/L
	Water		to 100%

4. FIRST AID MEASURES

Inhalation Remove affected person to fresh air until recovered.
Obtain medical advice.
Ingestion Rinse mouth thoroughly with water.
If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust). Make every effort to prevent vomit from entering the lungs by careful placement of the patient.



Material Safety Data Sheet

Page: 2 of 5

Infosafe No. NU01B Issue Date : February 2007 ISSUED by NUFARM

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Skin Wash affected areas thoroughly with soap and water.
Remove contaminated clothing and launder before re-use.

Eye If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes.

First Aid Facilities If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.

Advice to Doctor Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media Water fog, foam, carbon dioxide or dry chemical.

Hazards from Combustion Products Non-combustible.
If involved in a fire, it will emit hydrogen chloride and possibly organochlorine compounds.

Special Protective Equipment for fire fighters Breathable air apparatus may have to be worn if material is involved in fires especially in confined spaces.

Hazchem Code None Allocated

Decomposition Temp. Not known (>100C)

Emergency Action in case of Fire If exposed to fire, keep container cool by spraying with water fog.

Other Information Prevent fire water from entering drains or water bodies.

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite).
Collect spilled material and waste in sealable open-top type containers for disposal.
Dispose of at a landfill in accordance with local regulations.

Clean-up Methods - Large Spillages Place damaged containers in recovery bins (if available) and return to manufacturer.

7. HANDLING AND STORAGE

Precautions for Safe Handling Do NOT spray in high winds.
Do NOT contaminate dams, rivers or streams, or any other water bodies with pesticide or used containers.

Conditions for Safe Storage Store in the closed, original container in a dry, cool well ventilated area out of direct sunlight.
Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.

Other Information Equipment that has been used for this chemical should not be used for the application of other materials to sensitive plants, unless it has been well washed out with hot soapy water or 1% solution of ammonia, followed by several clear water rinses.
Do not use on or in situations where damage to susceptible crops or plants such as cotton, tobacco, tomatoes, flowers, vines, fruit trees or other susceptible crop plants may result from direct application or drift.
Always read the label and any attached leaflet before use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards No biological exposure limit allocated.
No exposure standard has been established for this product.

Engineering Controls Handle in well ventilated areas, generally natural ventilation is adequate.

Personal Protective Equipment When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles.



Material Safety Data Sheet

Page: 3 of 5

Infosafe No. NU01B Issue Date : February 2007 ISSUED by NUFARM

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Hygiene Measures After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.
After each day's use, wash contaminated clothing and safety equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Liquid
Appearance Amber liquid
Odour Mild amine odour
Decomposition Temperature Not known (>100C)
Melting Point <0
Boiling Point 100°C
Solubility in Water Soluble in water.
Specific Gravity 1.128 @ 20°C
Vapour Pressure The salts of dicamba and MCPA are not volatile.
Volatile Component ~ 50%
Flammability Non combustible material.

10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions.
Incompatible Materials Reaction of the concentrate or spray mix with acids will precipitate solid dicamba and MCPA and largely de-activate the product and cause blockages in spray equipment.
The addition of a strong alkali such as caustic soda will cause release of dimethylamine vapour.
Dimethylamine is moderately toxic, LD50 (oral, rat) is 700 mg/kg and a TLV of 2 ppm (TWA) has been set.
Hazardous Reactions Keep away from strong oxidising agents.
Hazardous Polymerization Hazardous polymerisation is not possible.

11. TOXICOLOGICAL INFORMATION

Toxicology Information No harmful effects are expected if the precautions on the label and this MSDS are followed.
Inhalation Not a likely route of exposure when handling the concentrate.
When applying the product as a spray avoid breathing in spray mist.
Ingestion The concentrate is harmful if swallowed.
Skin Will irritate the skin.
Eye The concentrate will cause severe irritation and possible damage unless washed off immediately.
Chronic Effects Liver and kidney damage has been noted in laboratory animals that have been fed excessive doses of MCPA.
Reproductive Toxicity Data indicates no reproductive effects.
Data indicates no teratogenic effects.
Information is for dicamba.
Mutagenicity Data indicates no mutagenic effects.
Carcinogenicity The weight of the evidence is that dicamba is not carcinogenic.
Acute Toxicity - Oral LD50 (rat) 1707 mg/kg for dicamba
LD50 (rat) 700 mg/kg for MCPA
LD50 (mice) 550 mg/kg for MCPA
Acute Toxicity - Dermal LD50 (rabbit) >2000 mg/kg for dicamba
LD50 (rat) >1000 mg/kg for MCPA
Acute Toxicity - Inhalation LC50 (rat) (4hr) >9.6 mg/l for dicamba
LC50 (rat) (4hr) >6.36 mg/l for MCPA



Material Safety Data Sheet

Page: 4 of 5

Infosafe No. NU01B Issue Date : February 2007 ISSUED by NUFARM

Product Name : **KAMBA M Selective Herbicide**

Eye Irritation Kamba M is a severe eye irritant. Risk of serious damage to eyes.
Skin Irritation Mild skin irritant.
Other Information The Australian Acceptable Daily Intake (ADI) for dicamba for a human is 0.03 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 3 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing, 'ADI List', TGA, September 2006).
ADI for MCPA is 0.01 mg/kg/day, NOEL 1.1 mg/kg/day.

12. ECOLOGICAL INFORMATION

Persistence / Degradability Loss from soil is principally by microbial degradation. Average field half life of dicamba is 14 days. Average field half life of MCPA is 7 days.
Other Precautions Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.
Environ. Protection Spray drift can cause damage, read the label for more information.
Acute Toxicity - Fish LC50 (96 hr) for rainbow trout and bluegill sunfish is 135 mg/l for dicamba
LC50 (96 hr) for rainbow trout is 50 - 560 mg/l for MCPA
LC50 (96 hr) for bluegill sunfish is >135 mg/l for MCPA
Acute Toxicity - Daphnia LC50 (48 hr) for daphnia is 110 mg/l for dicamba.
LC50 (48 hr) for daphnia is >190 mg/l for MCPA.
Acute Toxicity - Other Organisms Bees: Not toxic to bees. LD50 for dicamba is >100 µg/bee.
Bees: Not toxic to bees. LD50 for MCPA is 104 µg/bee.
LD50 for bobwhite quail is 377 mg/kg for MCPA
Low toxicity to birds.

13. DISPOSAL CONSIDERATIONS

Product Disposal On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).
Container Disposal Do not use this container for any other purpose. Triple rinse containers, add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMuster symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program. 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.

14. TRANSPORT INFORMATION

Transport Information It is good practice to separate this product from food, food related materials, animal feedstuffs, seed or fertilisers during transport.
U.N. Number None Allocated
Proper Shipping Name None Allocated
DG Class None Allocated
Hazchem Code None Allocated
Packing Group None Allocated
Storage and Transport Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

15. REGULATORY INFORMATION



Material Safety Data Sheet

Page: 5 of 5

Infosafe No.	NU01B	Issue Date : February 2007	ISSUED by NUFARM
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Product Name : **KAMBA M Selective Herbicide**

Poisons Schedule	S5
Packaging & Labelling	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Hazard Category	Harmful, Irritant
AICS (Australia)	All of the components in this product are listed on the Australian Inventory of Chemical Substances.

16. OTHER INFORMATION

Contact Person/Point	Normal Hours: Mr Volker Maier After Hours: Shift Supervisor	Phone: (03) 9282 1000 Phone: 1800 033 498
Revisions Highlighted	The MSDS was reviewed. Various changes were made to the information. Poisons Schedule changed from S6 to S5. Risk and Safety phrases amended. Changes in Sections 3,4, 11 and 15. ...End Of MSDS...	