



# Material Safety Data Sheet

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Infosafe No. 3NU5B Issue Date: January 2005 ISSUED by NUFARM

Product Name: **KAMBA 500 Selective Herbicide**

Classified as hazardous according to criteria of NOHSC

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

**Product Name** KAMBA 500 Selective Herbicide  
**Product Code** 0150  
**Product Use** For the control of certain broadleaf weeds in winter cereals, pastures, conservation tillage, sugar-cane, turf, rice, grain sorghum and non-crop areas.  
**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/Telex Number** Tel: (03) 9282-1000 Fax: (03) 9282-1001  
**Product Type** Group I Herbicide  
**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. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical Characterization** Liquid

<b>Ingredients</b>	<b>Name</b>	<b>CAS</b>	<b>Proportion</b>
	Dicamba (present as dimethylamine salt)	1918-00-9	500 g/L
	Water		30-50 %

## 3. HAZARDS IDENTIFICATION

Irritating to eyes.  
**Other Information** Poisons Schedule S6

## 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.  
**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 Poisons Information Centre on 13 11 26 (Australia).  
**Advice to Doctor** Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

**Extinguishing Media** Water fog, foam, carbon dioxide or dry chemical.  
**Hazardous** Non-combustible.  
**Combustion Products** If involved in a fire, it will emit hydrogen chloride and possibly organochlorine compounds.  
**Emergency Action in case of Fire** If exposed to fire, keep container cool by spraying with water fog.



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

**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

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

**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.

## 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

**Exposure Limits** No biological exposure limit allocated.  
No exposure standard has been established for this product.

**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.

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

**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

**Appearance** Amber liquid

**Odour** Mild amine odour

**Melting Point** -5°C

**Solubility in Water** Soluble in water.

**Boiling Point** ~108°C

**Specific Gravity (H<sub>2</sub>O=1)** 1.185 @ 20°C

**Vapour Pressure** Dicamba salt is not volatile.

**Volatile Component** ~ 40%

**Flammability** Non combustible material.

## 10. STABILITY AND REACTIVITY

**Stability** Stable under normal conditions.

**Hazardous Polymerization** Hazardous polymerisation is not possible.

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**Materials to Avoid** Reaction of the concentrate or spray mix with acids will precipitate solid dicamba 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 Reaction** Keep away from strong oxidising agents.

## 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 mists.

**Ingestion** The concentrate is of low toxicity if swallowed.

**Skin** Will irritate the skin.

**Eye** Will irritate the eyes.  
Prolonged contact with the concentrate may cause damage to the eye.

**Chronic Effects** Myotoxic muscular spasms, urinary incontinence and if excessive, dyspnea, cyanosis and exhaustion.

**Reproductive Toxicity** Data indicates no reproductive effects.  
Data indicates no teratogenic effects.

**Mutagenicity** Data indicates no mutagenic effects.

**Carcinogenicity** Data indicates no carcinogenic effects.

**Acute Toxicity - Oral** LD50 (rat) 1707 mg/kg for dicamba

**Acute Toxicity - Dermal** LD50 (rabbit) >2000 mg/kg for dicamba

**Acute Toxicity - Inhalation** LC50 (rat) (4hr) >9.6 mg/l for dicamba

**Eye Irritation** The product is an eye irritant.

**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, June 2004).

## 12. ECOLOGICAL INFORMATION

**Known Harmful Effects on the Environment** Dicamba products do not appear to pose any threat to birds.  
Dicamba products do not appear to pose any threat to fish or other aquatic organisms other than in very high concentrations.

**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.

**Persistence / Degradability** Loss from soil is principally by microbial degradation.  
Average field half life of dicamba is 14 days.

**Acute Toxicity - Fish** LC50 (96 hr) for rainbow trout and bluegill sunfish is 135 mg/l for dicamba

**Acute Toxicity - Daphnia** LC50 (48 hr) for daphnia is 110 mg/l for dicamba.

**Acute Toxicity - Other Organisms** Bees: Not toxic to bees. LD50 for dicamba is >100 µg/bee.



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## 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 (ChemCollect).
- 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

- 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

- Risk Phrase** R36 Irritating to eyes.
- Safety Phrase** S2 Keep out of reach of children.  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Poisons Schedule** S6
- Hazard Category** Irritant
- Packaging & Labelling** POISON  
KEEP OUT OF REACH OF CHILDREN  
READ SAFETY DIRECTIONS BEFORE OPENING OR USING
- 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 Phone: (03) 9282 1000  
After Hours: Shift Supervisor Phone: 1800 033 498
- Revisions Highlighted** The MSDS was reviewed. Minor changes were made to the information. The MSDS is now issued in a 16 header format.  
...End Of MSDS...