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| Infosafe No™ 3NUAD | Issue Date : November 2018 | ISSUED by NUFARMNZ |
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 Product Name **KAMBA® 500**

## 1. Identification

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| <b>GHS Product Identifier</b>                                  | KAMBA® 500   |
| <b>Product Code</b>  | 00376  |
| <b>Product Type</b>  | Herbicide  |
| <b>Company Name</b>  | Nufarm NZ  |
| <b>Address</b>   | 6 Manu Street, Otahuhu<br>Auckland 2024 New Zealand  |
| <b>Telephone/Fax Number</b>                                    | Tel: 0-9-270 4150  |
| <b>Emergency phone number</b>                                  | 0800 651 911   |
| <b>Email</b>   | info@nz.nufarm.com   |
| <b>Recommended use of the chemical and restrictions on use</b> | A selective herbicide for the control of difficult broadleaf weeds in cereals, maize, pasture, plantain and waste areas. (Controls atrazine resistant fathen in maize.)  |
| <b>Other Information</b>                                       | This SDS 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. Hazard Identification

|                             |   |
|-----------------------------|---|
| <b>Signal Word (s)</b>      | WARNING   |
| <b>Hazard Statement (s)</b> | H303 May be harmful if swallowed.<br>H313 May be harmful in contact with skin.<br>H333 May be harmful if inhaled<br>H315 Causes skin irritation.<br>H319 Causes serious eye irritation.<br>H373 May cause damage to liver through repeated oral exposure at high doses.<br>H400 Very toxic to aquatic life.<br>H421 Very toxic to soil environment.<br>H432 Toxic to terrestrial vertebrates.<br>H442 Toxic to terrestrial invertebrates. |
| <b>Pictogram (s)</b>        | Exclamation mark, Health hazard, Environment,<br>The below pictograms are GHS Hazard symbols for workplace use only.<br>See SECTION 14 for Dangerous Goods information.   |



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|---|--|
| <b>Precautionary statement – Prevention</b> | P101 If medical advice is needed, have product container or label at hand.<br>P102 Keep out of reach of children.<br>P103 Read label before use.<br>P264 Wash hands and face thoroughly after handling.<br>P280 Wear protective gloves/protective clothing/eye protection/face protection. |
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| <b>Precautionary statement – Response</b> | P301+P310 IF SWALLOWED: DO NOT induce vomiting. Contact the National Poisons Centre 0800 POISON (0800 764 766) or doctor immediately.<br>P304+P312 IF INHALED: Call POISON center or doctor if you feel unwell.<br>P302+P352 IF ON SKIN: Wash with plenty of soap and water. DO NOT SCRUB THE SKIN.<br>P332+P313 If skin irritation occurs: Get medical advice/attention.<br>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing<br>P337+P313 If eye irritation persists: Get medical advice/attention.<br>P362 Take off contaminated clothing and wash before reuse.<br>P391 Collect spillage. |
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|--------------------------|---|
| <b>Other Information</b> | 6.1E acute toxicant, 6.3A skin irritant, 6.4A eye irritant, 6.9B target organ toxicant, 9.1A aquatic toxicant, 9.2A soil toxicant, 9.3B |
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terrestrial vertebrate toxicant, 9.4B terrestrial invertebrate toxicant,

### 3. Composition/information on ingredients

Chemical Liquid

#### Characterization

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

### 4. First-aid measures

|                             |   |
|-----------------------------|---|
| <b>First Aid Measures</b>   | For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. Begin artificial respiration if the victim is not breathing. Use mouth-to-nose rather than mouth-to-mouth. Obtain medical attention. |
| <b>Inhalation</b>           | Remove patient to fresh air. Lay down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.   |
| <b>Ingestion</b>            | Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. For advice, contact the National Poisons Centre (0800 764 766). Seek medical assistance immediately.  |
| <b>Skin</b>                 | Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. If a large area is affected seek medical assistance. Do not scrub the skin.         |
| <b>Eye contact</b>          | Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance. Remove contact lenses, if present and easy to do.  |
| <b>First Aid Facilities</b> | Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.  |
| <b>Advice to Doctor</b>     | Treat symptomatically.  |

### 5. Fire-fighting measures

|   |   |
|---|---|
| <b>Suitable extinguishing media</b>                   | Water fog, foam, carbon dioxide or dry chemical.  |
| <b>Hazards from Combustion Products</b>               | Non-combustible.<br>If involved in a fire, it will emit hydrogen chloride and possibly organochlorine compounds.                  |
| <b>Special Protective Equipment for fire fighters</b> | Full protective clothing and self-contained breathing apparatus.  |
| <b>Specific Methods</b>                               | Keep up wind. Do not allow washings to reach sewage or effluent systems.  |
| <b>Hazchem Code</b>                                   | 2Z  |
| <b>Decomposition Temp.</b>                            | c 200°C for dicamba.  |
| <b>Other Information</b>                              | Location Certificate: Not applicable<br>Hazardous Atmosphere Zone: Not applicable<br>Number of Fire Extinguishers: Not applicable |

### 6. Accidental release measures

|                                  |  |
|----------------------------------|--|
| <b>Spills &amp; Disposal</b>     | Wear protective clothing. Clear area of unprotected personnel. Contain spill and absorb with sand, soil or absorbent granules. If spill does enter waterways contact the local authority. Collect in an appropriate sealable container for disposal in an approved landfill. |
| <b>Personal Protection</b>       | For appropriate personal protective equipment (PPE), refer Section 8.  |
| <b>Environmental Precautions</b> | Prevent from entering drains, waterways or sewers.   |

### 7. Handling and storage

|                                      |   |
|--------------------------------------|---|
| <b>Precautions for Safe Handling</b> | Do not handle until all safety precautions have been read and understood. The person mixing or applying KAMBA 500 must be a 'Qualified Contractor' or a 'Qualified Person'. The spray mixture may also be prepared by 'Qualified Loader'. For more information refer to the Hazardous Substances (Hazardous |
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Property Controls) Notice 2017.

It is the duty of the PCBU that a person who uses, handles, manufactures or stores a hazardous substance (including hazardous waste) is provided information, instruction and training in accordance with Regulation 4.5 of the Health and Safety at work (Hazardous Substances) Regulations 2017.

Avoid skin and eye contact and inhalation of spray mist.

CERTIFIED HANDLER: Is not required.

TRACKING: Is not required.

RECORD KEEPING: Records of use as described in NZS 8409 Management of Agrichemicals must be kept if 3 litres or more is applied within 24 hours.

BEWARE: Spray drift hazard. Apply this product carefully. Spray drift may cause serious damage to other desirable plants.

Do NOT spray in high winds.

Keep out of reach of children.

**Conditions for safe storage, including any incompatibilities**

Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, fertilisers and seeds. Storage must be in accordance with NZS 8409 Management of Agrichemicals.

Stores containing 100L of KAMBA 500 require secondary containment and are subject to signage, and more than 100L require emergency response plans.

**Other Information**

Always read the label and any attached leaflet before use.

Aggregate Storage Volume Thresholds:

When stored with substances of the same hazard classification the aggregate quantity must be considered. For full details refer to the current NZS8409 Management of Agrichemicals and the HSNO Regulations.

## 8. Exposure controls/personal protection

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|---|---|
| <b>Occupational exposure limit values</b> | No exposure limits (WES, TEL or EEL's) have been specifically assigned for this product.  |
| <b>Appropriate engineering controls</b>   | Handle in well ventilated areas, generally natural ventilation is adequate.   |
| <b>Personal Protective Equipment</b>      | When opening the container, preparing spray and using the prepared spray wear safety goggles, waterproof gloves, cotton overalls buttoned to the neck and wrist, washable hat, and boots. |
| <b>Hygiene Measures</b>                   | Do not eat, drink or smoke while using.<br>Remove protective clothing and wash hands and face thoroughly before meals and after work. Wash protective clothing daily after work.          |

## 9. Physical and chemical properties

|   |                               |
|---|-------------------------------|
| <b>Form</b>                                   | Liquid                        |
| <b>Appearance</b>                             | Amber liquid                  |
| <b>Odour</b>                                  | Mild amine odour              |
| <b>Decomposition Temperature</b>              | c 200°C for dicamba.          |
| <b>Melting Point</b>                          | -5°C                          |
| <b>Boiling Point</b>                          | > 108 °C                      |
| <b>Solubility in Water</b>                    | Soluble in water.             |
| <b>Specific Gravity</b>                       | 1.185 @ 20°C                  |
| <b>pH</b>                                     | 8.5                           |
| <b>Vapour Pressure</b>                        | Dicamba salt is not volatile. |
| <b>Vapour Density (Air=1)</b>                 | Not applicable.               |
| <b>Partition Coefficient: n-octanol/water</b> | -0.55 (pH 5.0) for dicamba.   |
| <b>Flash Point</b>                            | Not applicable.               |
| <b>Flammability</b>                           | Non combustible material.     |
| <b>Auto-Ignition Temperature</b>              | Not applicable.               |

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| <b>Flammable Limits - Lower</b> | Not applicable.          |
| <b>Flammable Limits - Upper</b> | Not applicable.          |
| <b>Kinematic Viscosity</b>      | Not available.           |
| <b>Other Information</b>        | (SL) Soluble concentrate |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Chemical Stability</b>                 | Stable under normal conditions of handling and storage.   |
| <b>Incompatible Materials</b>             | 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.<br>The addition of a strong alkali such as caustic soda will cause release of dimethylamine vapour.<br>Dimethylamine is moderately toxic, LD50 (oral, rat) is 700 mg/kg and a TLV of 2 ppm (TWA) has been set. |
| <b>Possibility of hazardous reactions</b> | Keep away from strong oxidising agents.   |
| <b>Hazardous Polymerization</b>           | Hazardous polymerisation will not occur.  |

## 11. Toxicological Information

|                                    |   |
|------------------------------------|---|
| <b>Toxicology Information</b>      | No harmful effects are expected if the precautions on the label and this SDS are followed.  |
| <b>Acute Toxicity - Oral</b>       | LD50 (rat) 1,267 mg/kg for dicamba-dimethylammonium   |
| <b>Acute Toxicity - Dermal</b>     | LD50 (rabbit) >2000 mg/kg for dicamba   |
| <b>Acute Toxicity - Inhalation</b> | LC50 (male rat) (4hr) 4.46 mg/L for dicamba.  |
| <b>Ingestion</b>                   | The concentrate is of low toxicity if swallowed.  |
| <b>Inhalation</b>                  | Not a likely route of exposure when handling the concentrate.<br>When applying the product as a spray avoid breathing in spray mist.  |
| <b>Skin</b>                        | Will irritate the skin.   |
| <b>Eye</b>                         | Causes serious eye irritation.<br>Prolonged contact with the concentrate may cause damage to the eye.   |
| <b>Respiratory sensitisation</b>   | Data not available.   |
| <b>Skin Sensitisation</b>          | Not a skin sensitiser (dicamba)   |
| <b>Germ cell mutagenicity</b>      | Data not available.   |
| <b>Carcinogenicity</b>             | Data indicates no carcinogenic effects.   |
| <b>Reproductive Toxicity</b>       | Data indicates no reproductive effects.<br>Data indicates no teratogenic effects.   |
| <b>STOT-repeated exposure</b>      | May cause liver damage from repeated oral exposure at high doses.   |
| <b>Aspiration Hazard</b>           | Data not available.   |
| <b>Chronic Effects</b>             | Myotoxic muscular spasms, urinary incontinence and if excessive, dyspnea, cyanosis and exhaustion.  |
| <b>Mutagenicity</b>                | Data indicates no mutagenic effects.  |
| <b>Respiratory Irritation</b>      | Not an irritant.  |
| <b>Other Information</b>           | 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, Office of Chemical Safety, 'ADI List', December 2014). |

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## 12. Ecological information

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|---|---|
| <b>Persistence and degradability</b>            | Dicamba is not rapidly degradable.  |
| <b>Mobility</b>                                 | Dicamba is mobile in soil.  |
| <b>Environmental Fate</b>                       | In the soil, dicamba microbially degrades, the principal metabolite being 3,6-dichlorosalicylic acid. Under conditions amenable to rapid metabolism, DT50 <14 days. Koc = 249-2930 depending on the soil. |
| <b>Bioaccumulative Potential</b>                | Dicamba and dimethylamine are not bioaccumulative.  |
| <b>Known Harmful Effects on the Environment</b> | Dicamba products do not appear to pose any threat to birds.   |
| <b>Other Precautions</b>                        | Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.  |
| <b>Environmental Protection</b>                 | Spray drift can cause damage, read the label for more information.  |
| <b>Acute Toxicity - Fish</b>                    | LC50 (96h) for rainbow trout = 28mg/L for dicamba   |
| <b>Acute Toxicity - Daphnia</b>                 | LC50 (48h) for daphnia = 110mg/L for dicamba<br>LC50 (48h) for daphnia magna straus = 88.7mg/L for dimethylamine  |
| <b>Acute Toxicity - Algae</b>                   | EC50 for Skeletonema costatum = 0.493mg ae/L for dicamba  |
| <b>Acute Toxicity - Other Organisms</b>         | LD50 for bobwhite quail = 188mg ae/kg for dicamba<br>Not toxic to bees: LD50 >100µg/bee for dicamba<br>EC25 (14d) for soyabean = 0.0017mg ai/kg soil for dicamba  |

## 13. Disposal considerations

|                           |   |
|---------------------------|---|
| <b>Product Disposal</b>   | Dispose of product only by using according to the label, or at an approved landfill.  |
| <b>Container Disposal</b> | Triple rinse empty container and add rinsate to spray tank. Recycle empty container. Otherwise crush and bury in a suitable landfill. |

## 14. Transport information

|                                   |  |
|-----------------------------------|--|
| <b>Transport Information</b>      | It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.   |
| <b>U.N. Number</b>                | 3082   |
| <b>UN proper shipping name</b>    | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. - (dicamba, 50%)   |
| <b>Transport hazard class(es)</b> | 9  |
| <b>Hazchem Code</b>               | 2Z   |
| <b>Packaging Method</b>           | -  |
| <b>Packing Group</b>              | III  |
| <b>EPG Number</b>                 | -  |
| <b>IERG Number</b>                | 47   |
| <b>IMO Marine Pollutant</b>       | Yes. Environmentally Hazardous Substance mark required.  |
| <b>IMDG EMS</b>                   | F-A, S-F   |
| <b>Other Information</b>          | Do not carry this product on a passenger service vehicle.<br>Segregation: Check the latest Land Transport Rule Dangerous Goods Rule 45001 for additional information. Sea transport may require additional segregation. Refer NZS5433 sea segregation for details. |

## 15. Regulatory information

|   |   |
|---|---|
| <b>National and or International Regulatory Information</b> | Registered pursuant to the ACVM Act 1997, No. P5666<br>See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a> for registration conditions<br>Approved pursuant to the HSNO Act 1996, Approval Code HSR000442<br>See <a href="http://www.epa.govt.nz">www.epa.govt.nz</a> for approval controls. |
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# Safety Data Sheet

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**Packaging & Labelling** HARMFUL \* ECOTOXIC - keep out of reach of children  
**Hazard Rating** NFPA/HMIS: 2-1-1  
**Systems**

## 16. Other Information

**Date of preparation or last revision of SDS** March 2015

**Contact Person/Point** IN AN EMERGENCY, DIAL 111 - FIRE OR POLICE  
24Hr Tollfree Emergency No: 0800 651 911  
24Hr Emergency No: National Poisons Centre Phone: 0800 764 766

**Revisions Highlighted** Addition of plantain claim. SDS updated in accordance with Hazardous Substances (Safety Data Sheets) Notice 2017.  
...End Of MSDS...

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