



103 - 105 PIPE ROAD, LAVERTON NORTH, VIC. AUSTRALIA 3026
Postal Address: PO Box 103, LAVERTON, VIC. AUSTRALIA 3028
Telephone: 03 9282 1000 Fax: 03 9282 1001

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| PRODUCT: KAMBA M Selective Herbicide | Infosafe No:NU01B ISSUED: Dec 01 |
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Hazardous according to criteria of Worksafe Australia

UN NO....:None Allocated D.G.CLASS: CAS NO...:
HAZCHEM...: SUB. RISK:
SUSDP....: S5 (FED) S5 (NSW) S5 (VIC) S5 (SA) S5 (WA) S5 (Qld) S5 (Tas) S5 (NT)
G.T.EPG...: SPEC.EPG.: PACK. GRP:
IMDG.....:NA

PRODUCT IDENTIFICATION

CORRECT SHIPPING NAME:

Non Dangerous Good

OTHER NAMES:

Banvel M

TRADENAMES.:

KAMBA M Selective Herbicide

MANUF.: MANCODE:

NUFARM 0160

INGREDIENTS:

CHEMICAL ENTITY:

Dimethylamine salt of dicamba
Dimethylamine salt of MCPA
Water

CAS NO:

2300-66-5

PROPORTION:

8%
34%
to 100

PHYSICAL DESCRIPTION/PROPERTIES

APPEARANCE:

Amber solution, mild amine odour.

BOILING POINT.....: 100°C

MELTING POINT.....: <0

VAPOUR PRESSURE....: The salts of dicamba and MCPA are not volatile

VOLATILE COMPONENT.: ~ 47%

SPECIFIC GRAVITY...: 1.128 @ 20°C (H2O = 1)

FLASH POINT.....: Not flammable

FLAMMABILITY LIMITS: Not flammable

EXPLOSIVE LIMITS...: NA

AUTOIGNITION TEMP.: Unknown

DECOMPOSITION TEMP.: Not known (>100C)

FORM.....: Liquid

OTHER PROPERTIES:

Completely soluble in water

USE:

Controls certain broadleaf weeds in wheat, barley, oats, triticale, rye, grass pastures, turf and non-crop situations.



MATERIAL SAFETY DATA SHEET

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HEALTH HAZARD INFORMATION

ACUTE EFFECTS

SWALLOWED:

The concentrate is considered harmful if swallowed, when classified according to the Worksafe Criteria.

EYE:

Irritating to eyes. Prolonged contact with the concentrate may cause permanent damage.

SKIN:

Will cause irritation and possible damage if contact is prolonged or excessive. Considered harmful by absorption through skin, according to Worksafe Criteria.

INHALED:

Not considered a serious hazard with the concentrate, because the active ingredients are not volatile. However, inhalation of spray mists should be avoided. Considered harmful by inhalation, according to Worksafe Criteria.

CHRONIC EFFECTS

Liver and kidney damage has been noted in the laboratory with test animals but only after excessive doses.

OTHER HEALTH HAZARD INFORMATION

Signs and Symptoms of Acute Over Exposure: Non-specific. Symptoms may include gastroenteric distress, diarrhoea, mild central nervous system depression, dyspagia.

FIRST AID

SWALLOWED:

If swallowed and if more than 15 minutes from a hospital, induce vomiting preferably using Ipecac Syrup (APF).

EYE:

Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open.

SKIN:

Wash affected areas with copious quantities of soap and water immediately. Remove contaminated clothing and launder before re-use.

INHALED:

Remove to fresh air, apply artificial respiration if necessary. Consult a doctor.

FIRST AID FACILITIES:

If poisoning occurs, contact a doctor or Poisons Information Centre 13 11 26.



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ADVICE TO DOCTOR:

Treat Symptomatically.

TOXICITY DATA:

MCPA is considered to be of moderate toxicity to man. There have been very few reported acute toxic effects on users over many years. Several deaths have been recorded, but all have been deliberate suicide, generally using the sodium salt.

Toxicity to mammals

Acute oral LD50 (rats): 700mg/kg, (mice): 550mg/kg
Acute percutaneous LD50 (rats) >1000mg/kg

Dicamba, one of the active ingredients in Kamba M has been studied extensively to determine potential health effects. Animal experimentation with dicamba has not demonstrated any carcinogenic, teratogenic or other reproductive effects with the exception of slightly reduced fetal body weights and post-implantation losses reported at the Maximum Tolerated Dose level. The preponderance of experimental data suggests dicamba is not a mutagen.

Toxicity to mammals:

Acute oral LD50 (rats): 1700mg/kg
Acute dermal LD50 (rabbit): >2000mg/kg
Skin irritation in rabbit: mild to moderately irritating
Eye irritation in rabbit: extremely irritating and may be corrosive

Toxicity to fish:

MCPA threshold value in perch: 200mg/L
roach: 215mg/L (3-4 days)
LC50 (rainbow trout): 232mg/L (96 hours)

Not considered toxic to bees.

The Australian Acceptable Daily Intake(ADI) of 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 3.0 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 & Aged Care, "ADI List", August 2001).

The Australian Acceptable Daily Intake(ADI) of MCPA for a human is 0.01 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1.1 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 & Aged Care, "ADI List", August 2001).

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PRECAUTIONS FOR USE

EXPOSURE STANDARDS:

No exposure standards have been set for this product.

ENGINEERING CONTROLS:

Natural ventilation only is required under normal circumstances.

PERSONAL PROTECTION:

May irritate the eyes and skin. Avoid contact with eyes and skin.
When preparing product for use, wear cotton overalls buttoned to the neck and wrist and washable hat, elbow length PVC gloves and effective eye protection. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly. After each day's use, wash contaminated clothing and safety equipment.

FLAMMABILITY:

Non flammable.

ENVIRONMENT:

Do not contaminate dams, rivers or streams with pesticide or used container. Do not use the container for any other purpose. Wash out container and dispose of it in an approved manner.
Both dicamba and MCPA are biodegradable by bacteria, with half lives of one to several weeks in soil, depending on temperature and soil type.

SAFE HANDLING INFORMATION

STORAGE AND TRANSPORT:

STORAGE

Store in closed, original container in a cool, well-ventilated area.
Do not store for prolonged periods in direct sunlight.
Do not store near insecticides, fertilisers, foodstuffs or eating utensils.

TRANSPORT

Considered non hazardous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Packaging and Labelling:

WARNING

KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING

The product has been assessed according to the Worksafe criteria for classifying hazardous substances and is classified as hazardous:

Risk Phrases:

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.



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Packaging and Labelling: - (continued)

Safety Phrases:

- S2 Keep out of reach of children
- S13 Keep away from food, drink, and animal feeding stuffs

SPILLS AND DISPOSAL:

Contain spill and absorb with sand or proprietary absorbent (vermiculite).
Prevent from entering drains, waterways and sewers.
Collect in a sealed open top container for disposal.

FIRE/EXPLOSION HAZARD:

In case of severe fire, protective clothing and self-contained breathing apparatus should be worn.

Extinguishing Media: Water spray, foam, dry chemical, CO2.

Use water to keep fire exposed containers cool.

At first opportunity, remove from fire.

Products of Combustion: May yield steam, dicamba amine salt, MCPA amine salt, HCl, organochloride products, oxides of nitrogen, carbon monoxide.

Unusual Fire Hazards: Drums may burst as a result of steam being generated.

Reactivity Data:

Reaction of the concentrate or spray mix with acids will precipitate dicamba and MCPA and largely deactivate the product and cause blockages in spray equipment.

The addition of a strong alkali such as caustic soda (or even lime) will cause release of dimethylamine gas from the concentrate. Dimethylamine is moderately toxic LD50 (oral, rat) is 700 mg/Kg and a TLV of 10 ppm (TWA) has been set.

Under adverse conditions, the product may react violently with strong oxidising agents.

Hazardous polymerisation is not possible.

OTHER INFORMATION

User Data:

Contact Point:

Normal Hours: Mr. Volker Maier Phone: (03) 9282-1000
After Hours: Shift Supervisor Phone: 1 800 033 498