



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

PRODUCT: BROMICIDE MA Selective Herbicide	Infosafe No: NU017 ISSUED: May 00
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Hazardous according to criteria of Worksafe Australia

UN NO....:	D.G.CLASS:	CAS NO...:
HAZCHEM...:	SUB. RISK:	
SUSDP....: S6 (FED) S6 (NSW) S6 (VIC) S6 (SA) S6 (WA) S6 (Qld) S6 (Tas) S6 (NT)	SPEC.EPG.:	PACK. GRP:
G.T.EPG...:		

..... **PRODUCT IDENTIFICATION**

OTHER NAMES:

TRADENAMES.:	MANUF.:	MANCODE:
BROMICIDE MA Selective Herbicide	NUFARM	0220

INGREDIENTS:

CHEMICAL ENTITY:	CAS NO:	PROPORTION:
Bromoxynil present as the n-octanoyl ester	1689-99-2	200 g/L
MCPA present as the iso-octyl ester	26544-20-7	200 g/L
Solvesso 150 solvent; not classified as hazardous	64742-94-5	338 g/L
Proprietary surfactant mixture		50-100g/L

PHYSICAL DESCRIPTION/PROPERTIES

APPEARANCE:

Dark brown liquid with typical solvent odour.

BOILING POINT.....: 190 - 270°C for solvent present

MELTING POINT.....: <0 C

VAPOUR PRESSURE....: Not determined

VOLATILE COMPONENT.: 35 - 45%

SPECIFIC GRAVITY...: 1.07 - 1.09

FLASH POINT.....: 75°C (PMCC)

FLAMMABILITY LIMITS: 0.6 - 7.0% (for solvent present)

EXPLOSIVE LIMITS...: No information

AUTOIGNITION TEMP.: Not determined

DECOMPOSITION TEMP.: Not determined

FORM.....: Liquid

OTHER PROPERTIES:

Forms an emulsion with water.

USE:

For the control of certain broadleaf weeds in wheat, oats, barley, triticale, cereal rye, linseed, and also in parks, golf courses and lawns. Compatible with some wild oat post emergent herbicides. Read the "DIRECTIONS FOR USE" on the label.



MATERIAL SAFETY DATA SHEET

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HEALTH HAZARD INFORMATION

ACUTE EFFECTS

SWALLOWED:

The formulation is expected to be moderately toxic if swallowed. An acute oral toxicity has not been determined. Amounts swallowed incidental to normal handling procedures are not expected to cause injury. However swallowing of a large quantities may cause injury. If aspirated, that is vomitus enters the lung, the petroleum derived solvent may cause chemical pneumonitis. The product has been classified as harmful if swallowed, according to the Worksafe Criteria.

EYE:

The concentrate may cause irritation of the eyes.

SKIN:

Acute dermal toxicity has not been determined for this product but based on data available for the components dermal toxicity is expected to be moderate. Classification according to the Worksafe Criteria results in a classification of harmful by skin absorption. Slight skin irritation may occur after repeated or prolonged contact with the product or the spray. Repeated or prolonged exposure with the product will result in defatting of the skin which could lead to dermatitis.

INHALED:

No adverse respiratory effects are expected due to the physical properties of the components - low volatility. However care should be taken to avoid inhalation of excessive amount of spray mist. The product is classified as harmful by inhalation.

CHRONIC EFFECTS

Chronic Over Exposure: Weight loss and damage to liver and kidneys may be expected if exposure is excessive over a period of time.

OTHER HEALTH HAZARD INFORMATION

Over-exposure to the product by ingestion may lead to a general feeling of weakness and depression. Prolonged or repeated inhalation of high concentrations of the solvent vapour may cause headache, nausea and possibly vomiting.

FIRST AID

SWALLOWED:

If poisoning occurs, contact a doctor or Poisons Information Centre. Never give fluids or induce vomiting to a person who is unconscious or having convulsions.

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



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EYE:

Irrigate eyes for 15 minutes with copious quantities of water with eyelids held open. If irritation persists consult a doctor.

SKIN:

Wash areas of skin contact thoroughly with soap and water. Remove contaminated clothing and launder before re-use. If irritation persists seek obtain medical advice.

INHALED:

Remove affected person to fresh air. Obtain medical advice.

FIRST AID FACILITIES:

Obtain a supply of Ipecac Syrup APF.

ADVICE TO DOCTOR:

Treat symptomatically.
If vomiting and aspiration occurs solvent present may cause pulmonary pneumonitis.

TOXICITY DATA:

For a product of similar composition;
Acute oral LD50 (rats) : 691 mg/kg.

Bromoxynil octanoate technical:

Toxicity to Mammals:

Acute oral LD50 (rats): 365mg/kg
Acute oral LD50 (mice): 306mg/kg
Acute dermal LD50 (rats); >2000 mg/kg

Toxicity to Fish: Toxic to fish.

LC50 (48 hr) (rainbow trout): 0.15mg/l (as bromoxynil)

Toxicity to Birds: Moderately toxic.

Acute oral LD50 (pheasants): 175mg/kg

Toxicity to Bees: Not toxic to bees.

For iso-octyl ester of MCPA

Toxicity to Mammals:

Acute oral LD50 (rat): 1550mg/kg
Acute dermal LD50 (rabbit): > 2000mg/kg
Acute inhalation LC50, 4hr (rat): >4.5mg/L
(maximum attainable concentration)

Skin irritation (rabbit): No skin irritation.

Eye irritation (rabbit): No eye irritation

Sensitization (guinea pig): Did not cause sensitization.

Toxicity to Fish: Acutely toxic to fish.

LC50 (96hr) for rainbow trout; 3.2mg/l

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TOXICITY DATA: - (continued)

Toxicity to birds: Essentially not toxic
LD50 for mallard duck: >2250 mg/kg

Toxicity to bees: Not toxic to bees.

Biodegradability: Rapidly biodegradable, according to appropriate test procedure. Half-life is approximately 20 days.

The List of Designated Hazardous Substances [NOHSC:10005 (1999)] classifies bromoxynil octanoate as "Possible Risk of Harm to the Unborn Child" (R63), a Category 3 Reproductive warning. This classification is based on a classification made by the European authorities. In general, classification in Category 3 is assigned on an ad hoc basis where the only effects in test animals recorded are small changes in the incidence of spontaneous defects, small changes in the proportion of common variations such as are observed in skeletal examinations, or small differences in post natal developmental assessments. In the case of bromoxynil there are two studies in the literature where rats were dosed daily with very large doses of the material resulting in minor skeletal changes to the foetus. Persons using the product as per label instructions would have exposures orders of magnitude lower than those experienced by the test animals. Bromoxynil does not persist in the body or bioaccumulate in the food chain.

The Australian Acceptable Daily Intake(ADI) of Bromoxynil for a human is 0.003 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.3 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 & Family Services, TGA, "ADI List", AGPS, April 1997).

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 & Family Services, TGA, "ADI List", AGPS, April 1997).

PRECAUTIONS FOR USE

EXPOSURE STANDARDS:

Exposure standards or guidelines have not been established for bromoxynil, MCPA, their esters or the product.
The supplier of the solvent recommends an occupational exposure limit of 100ppm, TWA, as total hydrocarbon.



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ENGINEERING CONTROLS:

In the field natural ventilation is adequate when handling the concentrated product.

PERSONAL PROTECTION:

Product is harmful if swallowed, inhaled or absorbed. May irritate the eyes and skin. Avoid contact with eyes and skin. Avoid inhalation of spray mist. Open container in the open air. When preparing spray wear cotton overalls buttoned to the neck and wrist, washable hat, and elbow length PVC gloves. Wear goggles when handling the concentrate and preparing the spray.

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 gloves.

FLAMMABILITY:

Product is a combustible liquid. The spray mist is not combustible.

ENVIRONMENT:

Marine pollutant.

Moderately toxic to toxic for fish, depending on the species of fish.

Moderately toxic to birdlife.

Not toxic to bees.

Do NOT spray in high winds.

Do not contaminate dams, waterways or sewers with pesticide or used containers. Do not use this container for any other purpose.

Wash out the container and dispose of it in an approved manner.

Average half-life of bromoxynil in soil is 7 days.

Half-life for the iso-octyl ester of MCPA in soil is approximately 20 days.

..... **SAFE HANDLING INFORMATION**

STORAGE AND TRANSPORT:

STORAGE:

Store in original container tightly closed, out of direct sunlight.

Store away from food, feedstuffs, seed or fertilisers. Store out of the reach of children.

ROAD TRANSPORT:

Not classified as a dangerous good for transport by road and rail in Australia.

AIR & SEA TRANSPORT:

ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, TOXIC, N.O.S.,
(CONTAINS BROMOXYNIL)

UN No.

3082

Class: 9

Packaging Group: III



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Packaging and Labelling:

The product is a Schedule 6 poison according to the Standard for the Uniform Scheduling of Drugs and Poisons.

POISON

NOT TO BE TAKEN

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
(Repr.) Toxic to reproduction Cat.3 R63 Possible risk of harm to the unborn child.

Safety Phrases

S2 Keep out of reach of children

S13 Keep away from food, drink and animal feeding stuffs

S36/37 Wear suitable protective clothing & gloves

S23 Do not breathe vapour

S24 Avoid contact with eyes

S62 This phrase is not appropriate, it forbids the induction of vomiting. The label, as agreed with the NRA, suggests vomiting if more than 15 minutes from medical help.

SPILLS AND DISPOSAL:

Contain spill and absorb with sand or proprietary absorbent (vermiculite).

Prevent from entering drains, waterways or sewers.

Collect in sealable open-top containers for disposal.

Triple rinse containers, add rinsate to the spray tank, then offer container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. On-site disposal of concentrate is not acceptable.

Both active ingredients will degrade in soil and water.

FIRE/EXPLOSION HAZARD:

Concentrate is combustible and will burn if sufficient heat and oxygen available. Products of combustion will include harmful fumes of hydrogen bromide, hydrogen chloride and hydrogen cyanide and other compounds of bromine, chlorine and nitrogen if involved in fires or exposed to extreme heat.

Breathable air apparatus should be worn if product is involved in fires in confined spaces. Keep upwind.

Extinguishing media: Water fog, 'alcohol' foam, carbon dioxide and dry chemical. Hazchem code not assigned.



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Reactivity Data:

Product may react violently with strong oxidising agents.
Avoid contact with chlorine and inorganic peroxides.

OTHER INFORMATION

User Data:

WSA Haz? :Y

Contact Point:

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

End: Infosafe printed Material Safety Data Sheet - 9 April 2001