

# SAFETY DATA SHEET

According to Safe Work Australia

## 1. IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

**Product Name:** GENFARM BROM-M HERBICIDE

**Other Means of Identification:** Mixture

**Recommended Use of the Chemical and Restriction on Use:** Agricultural herbicide

**Details of Manufacturer or Importer:**

Landmark Operations Limited  
Suite 3, Level 1, Building B  
11 Talavera Road  
Macquarie Park NSW 2113

**Phone Number:** 02 9889 5400

**Emergency telephone number:** National Poison Information Centre: 13 11 26

## 2. HAZARDS IDENTIFICATION

**Hazardous Nature:**

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)



health hazard

Repr. 2                    H361 Suspected of damaging fertility or the unborn child.

Asp. Tox. 1            H304 May be fatal if swallowed and enters airways.



environment

Aquatic Acute 1        H400 Very toxic to aquatic life.

Aquatic Chronic 1    H410 Very toxic to aquatic life with long lasting effects.



Acute Tox. 4            H302 Harmful if swallowed.

Acute Tox. 4            H312 Harmful in contact with skin.

Acute Tox. 4            H332 Harmful if inhaled.

Skin Sens. 1            H317 May cause an allergic skin reaction.

**Signal Word** Danger

**Hazard Statements**

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

H317                      May cause an allergic skin reaction.

H361                      Suspected of damaging fertility or the unborn child.

H304                      May be fatal if swallowed and enters airways.

H410                      Very toxic to aquatic life with long lasting effects.

**Precautionary Statements**

P261                      Avoid breathing dust/fume/gas/mist/vapours/spray.

P280                      Wear protective gloves/protective clothing/eye protection/face protection.

P273                      Avoid release to the environment.

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- P264 Wash hands thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- P321 Specific treatment (see on this label).
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P330 Rinse mouth.
- P331 Do NOT induce vomiting.
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P391 Collect spillage.
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national regulations.

### 3 . COMPOSITION AND INFORMATION ON INGREDIENTS

**Chemical Characterization: Mixtures**

**Description:** Mixture of substances listed below with nonhazardous additions.

**Hazardous Components:**

64742-94-5	Solvent naphtha (petroleum), heavy arom. ⚠ Asp. Tox. 1, H304	37.1%
26544-20-7	MCPA, iso- octyl ester ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H332	20%
1689-99-2	Bromoxynil octanoate (ISO) ⚠ Acute Tox. 3, H331; ⚠ Repr. 2, H361; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317	20%

### 4 . FIRST AID MEASURES

**Inhalation:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

**Skin Contact:**

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

**Eye Contact:**

In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Seek medical attention if symptoms occur.

**Ingestion:**

If swallowed, do not induce vomiting. Immediately wash mouth with water. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

**Symptoms Caused by Exposure:**

Inhalation: Harmful if inhaled. May cause mild irritation.

Skin Contact: Harmful in contact with skin. May cause skin irritation, itchiness and reddening. May cause an allergic skin reaction, rash and inflammation.

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Eye Contact: May cause eye irritation, stinging, redening and watering.

Ingestion: Harmful if swallowed. May cause irritation, reddening and burning sensation to mouth and throat. May be fatal if swallowed and enters airways.

## 5 . FIRE FIGHTING MEASURES

**Suitable Extinguishing Media:** Use fire extinguishing methods suitable to surrounding conditions.

**Specific Hazards Arising from the Chemical:**

Hazardous combustion products include oxides of carbon, nitrogen, nitrogen oxides, other nitrogen compounds, hydrogen cyanide, hydrogen fluoride, other fluorine compounds, bromine compounds, smoke and water.

Product is combustible.

Closed containers may explode when exposed to extreme heat. Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

**Special Protective Equipment and Precautions for Fire Fighters:**

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

## 6 . ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures:**

Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.

**Environmental Precautions:**

In the event of a major spill, prevent spillage from entering drains or water courses.

**Methods and Materials for Containment and Cleaning Up:**

Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material. If absorbent material is not available or spill is too large, create a dike to stop spill from spreading. Collect the spilled material and place into a suitable container for disposal.

## 7 . HANDLING AND STORAGE

**Precautions for Safe Handling:**

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only outdoors or in a well-ventilated area. Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

**Conditions for Safe Storage:**

Store in a cool, dry and well ventilated area. Keep in original container tightly closed when not in use. Protect from heat, sparks, open flames and other sources of ignition. Keep away from strong oxidising agents, strong acids, strong bases, chlorates, nitrates, nitric acid, organic peroxides and potassium chlorate.

## 8 . EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Exposure Standards:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Engineering Controls:** Ensure adequate ventilation of the working area.

**Respiratory Protection:**

Use an approved vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for

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more information.

## Skin Protection:

PVC or rubber gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

## Eye and Face Protection:

Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337 for more information.

## 9 . PHYSICAL AND CHEMICAL PROPERTIES

### Appearance:

Form:	Liquid
Colour:	Clear dark brown
Odour:	Characteristic solvent
Odour Threshold:	No information available
pH-Value:	No information available
Melting point/Melting range:	<0 °C
Initial Boiling Point/Boiling Range:	190-270 °C
Flash Point:	75 °C
Flammability:	Combustible Liquid Class 1
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	0.6 Vol % (hydrocarbon solvent)
Upper:	7 Vol % (hydrocarbon solvent)
Vapour Pressure at 20 °C:	0.48 mPa (MCPA 2EHE)
Relative Density at 20 °C:	1.078
Vapour Density:	~5 (solvent)
Evaporation Rate:	No information available
Solubility in Water:	Emulsifies into water.

## 10 . STABILITY AND REACTIVITY

**Possibility of Hazardous Reactions:** Hazardous polymerisation will not occur.

**Chemical Stability:** Stable at ambient temperature and under normal conditions of use.

**Conditions to Avoid:** Heat, sparks, open flames and other sources of ignition.

### Incompatible Materials:

Strong oxidising agents, strong acids, strong bases, chlorates, nitrates, nitric acid, organic peroxides and potassium chlorate.

### Hazardous Decomposition Products:

Oxides of carbon, nitrogen, nitrogen oxides, other nitrogen compounds, hydrogen cyanide, hydrogen fluoride, other fluorine compounds, bromine compounds, smoke and water.

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## 11 . TOXICOLOGICAL INFORMATION

**Toxicity:**

**LD<sub>50</sub>/LC<sub>50</sub> Values Relevant for Classification:** No information available

**Acute Health Effects**

**Inhalation:** Harmful if inhaled. May cause mild irritation.

**Skin:**

Harmful in contact with skin. May cause skin irritation, itchiness and reddening. May cause an allergic skin reaction, rash and inflammation.

**Eye:**

May cause eye irritation, stinging, redening and watering. Prolonged exposure or delayed treatment may cause permanent eye damage.

**Ingestion:**

Harmful if swallowed. May cause irritation, reddening and burning sensation to mouth and throat. May be fatal if swallowed and enters airways.

**Skin Corrosion / Irritation:** Based on classification principles, the classification criteria are not met.

**Serious Eye Damage / Irritation:** Based on classification principles, the classification criteria are not met.

**Respiratory or Skin Sensitisation:** May cause an allergic skin reaction.

**Germ Cell Mutagenicity:** Based on classification principles, the classification criteria are not met.

**Carcinogenicity:** This product does NOT contain any IARC listed chemicals.

**Reproductive Toxicity:**

Bromoxynil octanoate (ISO) is classified by Safe Work Australia as Toxic to Reproduction Category 3. Suspected of damaging fertility or the unborn child.

**Specific Target Organ Toxicity (STOT) - Single Exposure:**

Based on classification principles, the classification criteria are not met.

**Specific Target Organ Toxicity (STOT) - Repeated Exposure:**

Based on classification principles, the classification criteria are not met.

**Aspiration Hazard:** May be fatal if swallowed and enters airways.

**Chronic Health Effects:** Prolonged exposure or delayed treatment may cause permanent eye damage.

**Existing Conditions Aggravated by Exposure:** No information available

**Additional toxicological information:**

The Australian Acceptable Daily Intake (ADI) for 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 and Ageing Office of Chemical Safety, 'ADI List', June 2014).

The Australian Acceptable Daily Intake (ADI) for 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 and Ageing Office of Chemical Safety, 'ADI List', June 2014).

## 12 . ECOLOGICAL INFORMATION

**Ecotoxicity:**

Non-toxic to bees.

LD50 > 100 µg/bee

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## Aquatic toxicity:

Very toxic to aquatic life with long lasting effects.

MCPA:

LC50 / 96h 1.66 mg/L (blue gill)

LC50 / 96h 1.15 mg/L (rainbow trout)

Bromoxynil octanoate:

LC50 / 96h 0.041 mg/L (rainbow trout)

LC50 / 48h 0.046 mg/L (daphnia)

## Persistence and Degradability:

Easily biodegradable. Bromoxynil half-life in soil: 10 days to 2 weeks. MCPA half-life in soil: 14 days to 1 month .

**Bioaccumulative Potential:** Bioaccumulation is not expected to occur.

**Mobility in Soil:** No information available

**Other adverse effects:** No information available

## 13 . DISPOSAL CONSIDERATIONS

**Disposal Methods and Containers:** Dispose according to applicable local and state government regulations.

### Special Precautions for Landfill or Incineration:

Please consult your state Land Waste Management Authority for more information.

## 14 . TRANSPORT INFORMATION

### UN Number

ADG

Not regulated

IMDG, IATA

UN3082

### Proper Shipping Name

ADG

Not regulated

IMDG

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MCPA, iso-octyl ester, Bromoxynil octonoate (ISO)), MARINE POLLUTANT

IATA

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MCPA, iso-octyl ester, Bromoxynil octonoate (ISO))

### Dangerous Goods Class

ADG Class:

Not regulated

IMDG Class:

9 Miscellaneous dangerous substances and articles.

### Packing Group:

ADG

Not regulated

IMDG, IATA

III

### Marine pollutant:

Yes

Symbol (fish and tree)

### EMS Number:

F-A,S-F

### Hazchem Code:

.3Z

### Special Provisions:

179, 274, 331, 335, AU01

### Limited Quantities:

5L

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**Packagings & IBCs - Packing Instruction:** P001, IBC03, LP01

**Packagings & IBCs - Special Packing Provisions:** PP1

**Portable Tanks & Bulk Containers - Instructions:** T4

**Portable Tanks & Bulk Containers - Special Provisions:** TP1, TP29

## 15 . REGULATORY INFORMATION

### Australian Inventory of Chemical Substances:

64742-94-5	Solvent naphtha (petroleum), heavy arom.
26544-20-7	MCPA, iso- octyl ester
1689-99-2	Bromoxynil octanoate (ISO)

### Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:

Poisons Schedule: 6

## 16 . OTHER INFORMATION

**Date of Preparation or Last Revision:** 13.07.2015

**Prepared by:** MSDS.COM.AU Pty Ltd

[www.msds.com.au](http://www.msds.com.au)

### Abbreviations and acronyms:

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC<sub>50</sub>: Lethal concentration, 50 percent

LD<sub>50</sub>: Lethal dose, 50 percent

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

### Disclaimer

This SDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - December 2011"

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