

1 Identification

Product Name: BROMOXYNIL MA SELECTIVE HERBICIDE by TITAN

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

Details of Manufacturer or Importer:

Titan Ag Pty Ltd
15/16 Princes Street
Newport NSW 2106

Phone Number: 02 9999 6655

Emergency telephone number: 02 9999 6655

2 Hazard(s) 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

Toxic To Reproduction 2 H361 Suspected of damaging fertility or the unborn child.
Aspiration Hazard 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 Toxicity (Oral) 4 H302 Harmful if swallowed.
Acute Toxicity (Dermal) 4 H312 Harmful in contact with skin.
Acute Toxicity (Inhalation) 4 H332 Harmful if inhaled.
Skin Sensitisation 1 H317 May cause an allergic skin reaction.
Flammable Liquids 4 H227 Combustible liquid.

Signal Word Danger

Hazard Statements

H227 Combustible liquid.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H332 Harmful 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

P201 Obtain special instructions before use.

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- P202 Do not handle until all safety precautions have been read and understood.
 P210 Keep away from flames and hot surfaces. No smoking.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 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.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P321 Specific treatment (see on this label).
 P330 Rinse mouth.
 P331 Do NOT induce vomiting.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P370+P378 In case of fire: Use to extinguish: CO₂, powder or water spray.
 P391 Collect spillage.
 P403+P235 Store in a well-ventilated place. Keep cool.
 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. ☠ Aspiration Hazard 1, H304	34.3%
26544-20-7	MCPA, iso- octyl ester ☠ Acute Toxicity (Oral) 3, H301; Acute Toxicity (Dermal) 3, H311; ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ☠ Acute Toxicity (Inhalation) 4, H332	20%
1689-99-2	Bromoxynil octanoate (ISO) ☠ Acute Toxicity (Inhalation) 3, H331; ☠ Toxic To Reproduction 2, H361; ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ☠ Acute Toxicity (Oral) 4, H302; Skin Sensitisation 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, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.

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Ingestion:

If swallowed, do not induce vomiting. 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 weakness, headache, dizziness and nausea.

Skin Contact: Harmful in contact with skin. May cause skin irritation. May cause an allergic skin reaction.

Eye Contact: May cause serious eye irritation.

Ingestion: Harmful if swallowed. May cause weakness, headache, dizziness and nausea. May be fatal if swallowed and enters airways. If aspirated into the lung from vomiting, the presence of solvent may result in chemical pneumonitis or other lung damage.

5 Fire Fighting Measures

Suitable Extinguishing Media: Alcohol resistant foam, dry chemical powder and carbon dioxide.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon and nitrogen and other pyrolysis products.

Combustible liquid C1.

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 and full protective clothing. 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.

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.

Contaminated work clothing must not be allowed out of the workplace.

Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Protect from direct sunlight, heat, sparks, open flames and hot surfaces. Keep away from strong oxidising agents.

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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 more information.

Skin Protection:

PVC, PVA, nitrile, neoprene, rubber or vinyl 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.

9 Physical and Chemical Properties

Appearance:

Form:	Liquid
Colour:	Dark brown
Odour:	Hydrocarbon odour
Odour Threshold:	No information available
pH-Value:	No information available
Melting point/freezing point:	No information available
Initial Boiling Point/Boiling Range:	190-270 °C (solvent)
Flash Point:	75 °C
Flammability:	Combustible liquid
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	0.6 Vol %
Upper:	7 Vol %
Vapour Pressure:	No information available
Relative Density at 20 °C:	1.07-1.09
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Dispersible
Partition Coefficient (n-octanol/water):	5.4 log POW (bromoxynil octanoate)
% Volatiles by Weight:	30-40

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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, hot surfaces and direct sunlight.

Incompatible Materials: Strong oxidising agents.

Hazardous Decomposition Products: Oxides of carbon and nitrogen.

11 Toxicological Information

Toxicity:

LD₅₀/LC₅₀ Values Relevant for Classification: No information available

Acute Health Effects

Inhalation: Harmful if inhaled. May cause weakness, headache, dizziness and nausea.

Skin: Harmful in contact with skin. May cause skin irritation. May cause an allergic skin reaction.

Eye: May cause serious eye irritation.

Ingestion:

Harmful if swallowed. May cause weakness, headache, dizziness and nausea. May be fatal if swallowed and enters airways. If aspirated into the lung from vomiting, the presence of solvent may result in chemical pneumonitis or other lung damage.

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:

Suspected of damaging fertility or the unborn child.

Bromoxynil octanoate (ISO) is classified by Safe Work Australia as Toxic to Reproduction Category 3.

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 contact with the concentrate can cause defatting of the skin and may result in dermatitis.

Chronic overexposure may cause weight loss and damage to liver and kidneys.

Existing Conditions Aggravated by Exposure: No information available

Additional toxicological information:

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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 NOAEL 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.

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 NOAEL of 0.3 mg/kg/day.

(Ref: Australian Pesticides and Veterinary Medicines Authority, 'Acceptable Daily Intakes for Agricultural and Veterinary Chemicals', 2017).

12 Ecological Information

Ecotoxicity: Bromoxynil is moderately toxic to hens, quail and mallard ducks and non-toxic to bees.

Aquatic toxicity:

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Persistence and Degradability: Bromoxynil has a low persistence in soil. Average soil half life is 7 days

Bioaccumulative Potential: No information available

Mobility in Soil: 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 Not regulated

Proper Shipping Name Not regulated

Dangerous Goods Class Not regulated

Packing Group: Not regulated

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: 12.12.2017

Abbreviations and acronyms:

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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

LC₅₀: Lethal concentration, 50 percent

LD₅₀: 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)

Flammable Liquids 4: Flammable liquids – Category 4

Acute Toxicity (Oral) 3: Acute toxicity – Category 3

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Acute Toxicity (Inhalation) 4: Acute toxicity – Category 4

Skin Sensitisation 1: Skin sensitisation, Hazard Category 1

Toxic To Reproduction 2: Reproductive toxicity – Category 2

Toxic To Reproduction 2: Reproductive toxicity – Category 2

Aspiration Hazard 1: Aspiration hazard – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment, short-term (Acute). Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment, long-term (Chronic). Category 1

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 - February 2016”

The information contained in this material safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. Titan Ag Pty Ltd makes no representation of the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability for any loss or damage related to the supply or use of the information in this material safety data sheet. The user is cautioned to make their own determinations as to the suitability of the information provided to the particular circumstances in which the product is used.