

Safety Data Sheet

according to WHS Regulations

Printing date 03.12.2021

Revision: 03.12.2021

1 Identification

Product Name: TITAN BROMOXYNIL 200 SELECTIVE HERBICIDE

Other Means of Identification: Mixture

APVMA Approval Number: 61796

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

Details of Manufacturer or Importer:

Titan Ag Pty Ltd
Princes Street Marina
Suite 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.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition), IATA and IMDG/IMSBC.

Not subject to the ADG Code when transported in Australia by Road or Rail in packagings that do not incorporate a receptacle exceeding 500(L) or less; or IBCs (refer to SP AU01). However if transported by Air or Sea, this provision does not apply.



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 (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.

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.

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Precautionary Statements

- P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 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/hearing protection.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
 P321 Specific treatment (see on this label).
 P331 Do NOT induce vomiting.
 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.
 P312 Call a POISON CENTER/doctor if you feel unwell.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P370+P378 In case of fire: Use CO₂, powder or water spray to extinguish.
 P391 Collect spillage.
 P403 Store in a well-ventilated place.
 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:**

CAS: 64742-94-5	Solvent naphtha (petroleum), heavy arom. ⚠️ Aspiration Hazard 1, H304	60-65%
CAS: 1689-99-2	Bromoxynil (as the octanoate) ⚠️ 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	15-20%

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.

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Symptoms Caused by Exposure:

Inhalation: Harmful if inhaled. May cause mild irritation.

Skin Contact: May cause skin irritation. May cause an allergic skin reaction.

Eye Contact: May cause eye irritation.

Ingestion: May be fatal if swallowed and enters airways. May cause irritation to mucous membranes.

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, bromine compounds, smoke and water.

Product is combustible.

Containers close to fire should be removed only if safe to do so. Use water spray to cool fire exposed containers.

Prevent run-off from fire fighting entering drains or water courses.

HAZCHEM Code: •3Z

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 and acids.

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.

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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 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
Odour:	Hydrocarbon
Odour Threshold:	No information available
pH-Value:	No information available
Melting point/freezing point:	No information available
Initial Boiling Point/Boiling Range:	~178 °C (solvent)
Flash Point:	>68 °C
Flammability:	Product is combustible.
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapour Pressure:	Not determined.
Relative Density:	1.03
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Emulsifies into water.
Partition Coefficient (n-octanol/water):	5.4 log POW (bromoxynil octanoate)
Solvent separation test:	
% Volatiles by Weight:	~60 %

10 Stability and Reactivity

Possibility of Hazardous Reactions: Hazardous polymerisation will not occur.

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

Conditions to Avoid: Heat, sparks, open flames, hot surfaces and direct sunlight.

Incompatible Materials: Strong oxidising agents.

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Hazardous Decomposition Products:

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

11 Toxicological Information

Toxicity:**LD50/LC50 Values:****CAS: 64742-94-5 Solvent naphtha (petroleum), heavy arom.**

Oral	LD50	5,000 mg/kg (rat)
	LD50	2,000 mg/kg (rabbit)

CAS: 1689-99-2 Bromoxynil (as the octanoate)

Oral	LD50	63 mg/kg (guinea pig)
		190 mg/kg (rat)
		260 mg/kg (rabbit)
	LD50	>2,000 mg/kg (rabbit)

Acute Health Effects**Inhalation:** Harmful if inhaled. May cause mild irritation.**Skin:** May cause skin irritation. May cause an allergic skin reaction.**Eye:** May cause eye irritation.**Ingestion:** May cause irritation to mucous membranes. 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:** 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:** May cause weight loss, fever, vomiting, headache and urinary problems.**Existing Conditions Aggravated by Exposure:** No information available**Additional toxicological information:**

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, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species.

(Ref: Australian Pesticides and Veterinary Medicines Authority, 'Acceptable Daily Intakes for Agricultural and Veterinary Chemicals', 2021).

12 Ecological Information

Ecotoxicity:

Non-toxic to bees.

Toxic to bird life.

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LD50 50 mg/kg (pheasants)
 LD50 240 mg/kg (hens)
 LD50 100 mg/kg (quails)
 LD50 200 mg/kg (mallard ducks)

Aquatic toxicity:

Very toxic to aquatic life with long lasting effects.

CAS: 64742-94-5 Solvent naphtha (petroleum), heavy arom.	
EC50/48 h	12 mg/l (daphnia)
EC50/72 h	2.5 mg/l (skeletonema costatum)
LC50/96 h	45 mg/l (fathead minnow)
CAS: 1689-99-2 Bromoxynil (as the octanoate)	
LC50	0.46 mg/l (goldfish)
	0.05 mg/l (rainbow trout)

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 data available on finished product.**Other adverse effects:** No further relevant 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, IMDG, IATA	UN3082
Proper Shipping Name	
ADG, IMDG, IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bromoxynil (as the octanoate))
Dangerous Goods Class	
ADG Class:	9
Subsidiary Risk:	
Packing Group:	
ADG, IMDG, IATA	III
Marine pollutant:	
EMS Number:	F-A,S-F
Hazchem Code:	•3Z
Special Provisions:	274, 331, 335, 375, AU01
Transport/Additional information:	Not subject to the ADG Code when transported by road or rail in packagings that do not incorporate a receptacle exceeding 500 kg(L) or IBCs. (refer to SP AU01)

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Limited Quantities: 5L

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 Industrial Chemicals:

All components are on the inventory, or in compliance with the inventory.

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

Poisons Schedule: 6

Australian Pesticides and Veterinary Medicines Authority:

This product is registered with the Australian Pesticides and Veterinary Medicines Authority. APVMA number 61796.

16 Other Information

Date of Preparation or Last Revision: 03.12.2021

Prepared by: MSDS.COM.AU Pty Ltd

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

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) 4: Acute toxicity – Category 4

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

Skin Sensitisation 1: Skin sensitisation, Hazard Category 1

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 - July 2020”

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