

Safety Data Sheet according to WHS Regulations

Date of issue: 29.07.2025 Revision date: 29.07.2025

1 Identification

Product Name: TITAN PARAQUAT 250 HERBICIDE

Other Means of Identification: Mixture **APVMA Approval Number:** 61869

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).



GHS06 Skull and crossbones

Acute toxicity - oral – Category 3 H301 Toxic if swallowed.

Acute toxicity - dermal – Category 3 H311 Toxic in contact with skin.

Acute toxicity - inhalation – Category 2 H330 Fatal if inhaled.



GHS08 Health hazard

Specific target organ toxicity (repeated exposure) – H372 Causes damage to organs through prolonged or repeated exposure.



GHS05 Corrosion

Skin corrosion/irritation – Category 1C H314 Causes severe skin burns and eye damage.

Eye damage/irritation – Category 1 H318 Causes serious eye damage.



GHS09 Environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

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

effects.



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H335 May cause respiratory irritation.

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Specific target organ toxicity (single exposure) –

Category 3

Signal Word Danger

Hazard Statements

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H330 Fatal if inhaled.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

H372 Causes damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

Do not breathe dusts or mists. P260 P264 Wash thoroughly after handling.

Do not eat, drink or smoke when using this product. P270 Use only outdoors or in a well-ventilated area. P271

P273 Avoid release to the environment.

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

P284 Wear respiratory protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin

with water/shower.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for

breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P312 Call a POISON CENTER/doctor if you feel unwell. P314 Get medical advice/attention if you feel unwell. P320 Specific treatment is urgent (see on this label).

P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

Collect spillage. P391

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

3 Composition and Information on Ingredients

Chemical Characterization: Mixtures

Description: Mixture: consisting of the following components.

Hazardous Components:		
CAS: 1910-42-5	Paraquat (present as paraquat dichloride)	20-25%
	Acute toxicity - oral – Category 3, H301; Acute toxicity - dermal – Category 3, H311; Acute toxicity - inhalation – Category 2, H330; Specific target organ toxicity (repeated exposure) – Category 1, H372; Aquatic Chronic 1, H410; Skin corrosion/irritation – Category 2, H315; Eye damage/irritation – Category 2A, H319; Specific target organ toxicity (single exposure) – Category 3, H335	
CAS: 110-86-1	Pyridine	<10%
	Flammable liquids – Category 2, H225; Specific target organ toxicity (repeated exposure) – Category 2, H373; Skin corrosion/irritation – Category 1C, H314; Acute toxicity - oral – Category 4, H302; Acute toxicity - dermal – Category 4, H312; Acute toxicity - inhalation – Category 4, H332	

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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.

Eye Contact:

In case of eye contact, rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention.

Ingestion:

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

Inhalation: Fatal if inhaled. May cause respiratory irritation, headaches, nausea, nose bleeding and a sore throat. May cause pulmonary oedema, which can be fatal.

Skin Contact: Causes severe skin burns. May cause white spots on fingernails, cracked nails and possible loss of fingernails.

Eye Contact: Causes serious eye irritation, stinging, reddening and watering.

Ingestion: Harmful if swallowed. May cause vomiting, diarrhoea, soreness and inflamation of mouth and throat, kidney failure and liver damage.

5 Fire Fighting Measures

Suitable Extinguishing Media: Water fog or fine spray.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon, nitrogen, nitrogen oxides, other nitrogen compounds, hydrogen cyanide, hydrogen chloride, other chlorine compounds and smoke. Product is not flammable.

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: 2X

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.

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

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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 direct sunlight. Keep away from strong oxidising agents.

8 Exposure Controls and Personal Protection

Exposure Standards:

CAS: 110-86-1 Pyridine

NES TWA: 16 mg/m³, 5 ppm

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapour below occupational exposure standards.

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: Dark blue

Odour: Characteristic pyridine base odour

Odour Threshold:No information availablepH-Value:5.0 - 6.5 (1% solution)Melting point/freezing point:No information available

Initial Boiling Point/Boiling Range: ~100 °C Flash Point: Not applicable

Flammability Product is not flammable

Auto-ignition Temperature: Not applicable

Decomposition Temperature: No information available

Explosion Limits:

Lower: No information available Upper: No information available

Vapour Pressure: Not determined.

Relative Density: 1.1

Vapour Density:No information availableEvaporation Rate:No information availableSolubility in Water:Completely soluble

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Partition Coefficient (n-octanol/water): No information available

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: Direct sunlight.

Incompatible Materials: Strong oxidising agents.

Hazardous Decomposition Products:

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

11 Toxicological Information

Toxicity:

LD50/LC50 Values:		
CAS: 1910-42-5 Paraquat (present as paraquat dichloride)		
Oral	LD50	283-344 mg/kg (Rattus norvegicus (rat))
Inhalation	LD50	0.0006-0.0019 mg/l (Rattus norvegicus (rat))

Acute Health Effects

Inhalation: Fatal if inhaled.
Skin: Causes severe skin burns.
Eye: Causes serious eye damage.
Ingestion: Toxic if swallowed.

Skin Corrosion / Irritation: Causes severe skin burns.

Serious Eye Damage / Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitisation: Based on classification principles, the classification criteria are not met.

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

Carcinogenicity:

Not expected to be a hazard.

Pyridine is classified by IARC as Group 3 - Not classifiable as to its carcinogenicity to humans.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Single Exposure: May cause respiratory irritation.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

Causes damage to organs through prolonged or repeated exposure if swallowed.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.

Chronic Health Effects:

Prolonged exposure or delayed treatment may cause permanent eye damage. May cause damage to the kidneys and liver.

Existing Conditions Aggravated by Exposure: No information available

Additional toxicological information:

The Australian Acceptable Daily Intake (ADI) for paraquat (as cation) for a human is 0.004 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 0.45 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', 2024)

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12 Ecological Information

Ecotoxicity:

CAS: 1910-42-5 Paraquat (present as paraquat dichloride)

LD50 981 mg/kg (Colinus virginianus (bobwhite quail))

970 mg/kg (Coturnix coturnix (common quail))

Aquatic toxicity:

Very toxic to aquatic life with long lasting effects.

CAS: 1910-42-5 Paraquat (present as paraquat dichloride)

EC50/48 h 6.1 mg/l (Daphnia magna (water flea))

EC50/72 h 0.00103 mg/l (Bacillariophyceae (diatom))

0.6 mg/l (Pseudokirchneriella subcapitata (algae))

LC50/96 h 55 mg/l (Oncorhynchus mykiss (rainbow trout))

Persistence and Degradability: No information available

Bioaccumulative Potential: Bioaccumulation is not expected to occur.

Mobility in Soil: Paraquat strongly adsorbs to soil particles, and so has low mobility in soils.

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, IMDG, IATA UN3016

Proper Shipping Name

ADG BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC (Paraquat

dichloride), ENVIRONMENTALLY HAZARDOUS

IMDG BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC (Paraquat

dichloride), MARINE POLLUTANT

IATA BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC (Paraquat

dichloride)

Dangerous Goods Class

ADG Class: 6.1

Packing Group:

ADG, IMDG, IATA

Marine pollutant: Yes

Symbol (fish and tree)

EMS Number: F-A,S-A

Hazchem Code: 2X

Special Provisions: 61, 274

Excepted quantities (EQ): E4

Limited Quantities: 100 ml

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Packagings & IBCs - Packing Instruction: P001, IBC02

Portable Tanks & Bulk Containers - Instructions: T11

Portable Tanks & Bulk Containers - Special

Provisions: TP2, TP13, TP27

15 Regulatory Information

Australian Inventory of Industrial Chemicals:

All ingredients are listed.

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

Poisons Schedule: 7

Australian Pesticides and Veterinary Medicines Authority:

This product is registered with the Australian Pesticides and Veterinary Medicines Authority. APVMA approval number 61869.

16 Other Information

Date of Preparation or Last Revision: 29.07.2025

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 - Category 2: Flammable liquids - Category 2

Acute toxicity - oral - Category 3: Acute toxicity - Category 3
Acute toxicity - oral - Category 4: Acute toxicity - Category 4 Acute toxicity - inhalation - Category 2: Acute toxicity - Category 2

Skin corrosion/irritation - Category 1C: Skin corrosion/irritation - Category 1C

Skin corrosion/irritation - Category 2: Skin corrosion/irritation - Category 2

Eye damage/irritation - Category 1: Serious eye damage/eye irritation - Category 1

Eye damage/irritation – Category 2A: Serious eye damage/eye irritation – Category 2A

Specific target organ toxicity (single exposure) – Category 3: Specific target organ toxicity (single exposure) – Category 3

Specific target organ toxicity (repeated exposure) - Category 1: Specific target organ toxicity (repeated exposure) - Category 1 Specific target organ toxicity (repeated exposure) - Category 2: Specific target organ toxicity (repeated exposure) - Category 2

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 - June 2023".

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