

# Safety Data Sheet

according to WHS Regulations

Date of issue: 17.07.2025

Revision date: 17.07.2025

## 1 Identification

**Product Name:** TITAN DIQUAT 200 NON-RESIDUAL HERBICIDE

**Other Means of Identification:** Mixture

**APVMA Approval Number:** 64177

**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 - inhalation – Category 3

H331 Toxic if inhaled.



GHS08 Health hazard

Specific target organ toxicity (repeated exposure) – Category 1

H372 Causes damage to organs through prolonged or repeated exposure.



GHS09 Environment

Aquatic Chronic 2

H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin corrosion/irritation – Category 2

H315 Causes skin irritation.

Eye damage/irritation – Category 2A

H319 Causes serious eye irritation.

Skin sensitisation – Category 1

H317 May cause an allergic skin reaction.

**Signal Word** Danger

**Hazard Statements**

H331 Toxic if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H372 Causes damage to organs through prolonged or repeated exposure.

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H411 Toxic to aquatic life with long lasting effects.

**Precautionary Statements**

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash 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 / eye protection / face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P311	Call a POISON CENTER/doctor.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see on this label).
P314	Get medical advice/attention 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.
P337+P313	If eye irritation persists: Get medical advice/attention.
P391	Collect spillage.
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 of substances listed below with nonhazardous additions.**Hazardous Components:**

CAS: 85-00-7	Diquat dibromide	15-20%
	 Acute toxicity - inhalation – Category 2, H330;  Specific target organ toxicity (repeated exposure) – Category 1, H372;  Aquatic Chronic 1, H410;  Acute toxicity - oral – Category 4, H302; Skin corrosion/irritation – Category 2, H315; Eye damage/irritation – Category 2A, H319; Skin sensitisation – Category 1, H317; Specific target organ toxicity (single exposure) – Category 3, H335	

### 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 irritation occurs.

**Eye Contact:**

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

**Ingestion:**

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Give a glass of water to drink in small sips. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

**Symptoms Caused by Exposure:**

Inhalation: Toxic if inhaled. May cause respiratory irritation, headaches, nose bleeding, shortness of breath, increased secretion of mucous and sore throat. May cause pulmonary oedema, which can be fatal.  
Skin Contact: Causes skin irritation. May cause an allergic skin reaction.

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Eye Contact: Causes serious eye irritation. Prolonged exposure or delayed treatment may cause permanent eye damage.

Ingestion: May be corrosive to the gastrointestinal tract, causing nausea, vomiting, diarrhoea, ulceration of the lips, throat and intestines, severe dehydration, changes in body fluid balances, kidney failure and liver damage.

## 5 Fire Fighting Measures

### Suitable Extinguishing Media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Do not use a solid water stream.

### Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon, nitrogen, oxides of nitrogen, various, unidentified nitrogen compounds, hydrogen cyanide, bromine compounds, smoke and water.

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.

Extinguish all sources of ignition. Avoid sparks and open flames. No smoking. Take care as spill may cause a slip hazard.

### Environmental Precautions:

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

Inform respective authorities in case of seepage into water course or sewage system.

### 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. Decontaminate spill area with water and detergents. Contain all runoff.

## 7 Handling and Storage

### Precautions for Safe Handling:

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of mists or 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, direct sunlight, sparks, open flames and other sources of ignition. Avoid contact with metals, e.g. aluminium, zinc, iron.

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## 8 Exposure Controls and Personal Protection

**Exposure Standards:****CAS: 85-00-7 Diquat dibromide**

WES	TWA: 0.5 mg/m <sup>3</sup> Sen
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**Engineering Controls:**

Ensure adequate ventilation of the working area, keeping airborne concentrations below occupational exposure standards.

**Respiratory Protection:**

Use an approved mixed type organic vapour / particulate respirator (types A and P) 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:**

Elbow-length gloves. Recommended materials: PVC, natural rubber. 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:**

Safety glasses with top and side shields or goggles. See Australian/New Zealand Standards AS/NZS 1336 and 1337 for more information.

## 9 Physical and Chemical Properties

**Appearance:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Dark red to brown
<b>Odour:</b>	No information available
<b>Odour Threshold:</b>	No information available
<b>pH-Value:</b>	4 - 5
<b>Melting point/freezing point:</b>	approx. 0 °C
<b>Initial Boiling Point/Boiling Range:</b>	approx. 100 °C
<b>Flash Point:</b>	No information available
<b>Flammability</b>	Not applicable
<b>Auto-ignition Temperature:</b>	No information available
<b>Decomposition Temperature:</b>	No information available
<b>Explosion Limits:</b>	
<b>Lower:</b>	No information available
<b>Upper:</b>	No information available
<b>Vapour Pressure:</b>	No information available
<b>Relative Density:</b>	approx. 1.2
<b>Vapour Density:</b>	No information available
<b>Evaporation Rate:</b>	No information available
<b>Solubility in Water:</b>	Completely soluble
<b>Partition Coefficient (n-octanol/water):</b>	No information available
<b>Organic solvents:</b>	
<b>Physical state</b>	Liquid

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## 10 Stability and Reactivity

**Possibility of Hazardous Reactions:** No dangerous reactions known under conditions of normal use.

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

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

**Incompatible Materials:** Contact with metals, e.g. aluminium, zinc, iron.

**Hazardous Decomposition Products:**

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

## 11 Toxicological Information

**Toxicity:**

**LD50/LC50 Values:**

**CAS: 85-00-7 Diquat dibromide**

Oral	LD50	1,000 mg/kg (Rattus norvegicus (rat))
	LD50	400-500 mg/kg (Oryctolagus cuniculus (rabbit))
Dermal	LD50	2,000 mg/kg (Rattus norvegicus (rat))
Inhalation	LC50/4 h	0.226 mg/l (Rattus norvegicus (rat)) (OECD Test Guideline 403)

**Acute Health Effects**

**Inhalation:**

Toxic if inhaled. May cause respiratory irritation, headaches, nose bleeding, shortness of breath, increased secretion of mucous and sore throat. May cause pulmonary oedema, which can be fatal.

**Skin:** Causes skin irritation. May cause an allergic skin reaction.

**Eye:**

Causes serious eye irritation. Prolonged exposure or delayed treatment may cause permanent eye damage.

**Ingestion:**

May be corrosive to the gastrointestinal tract, causing nausea, vomiting, diarrhoea, ulceration of the lips, throat and intestines, severe dehydration, changes in body fluid balances, kidney failure and liver damage.

**Skin Corrosion / Irritation:** Causes skin irritation.

**Serious Eye Damage / Irritation:** Causes serious eye irritation.

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

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

**Carcinogenicity:**

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

This product does NOT contain any IARC listed chemicals.

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

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

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

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

Causes damage to organs through prolonged or repeated exposure.

**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 loss of appetite, decreased growth, lung changes, skin inflammation, changes to fingernails and damage to the kidneys.

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

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**Additional toxicological information:**

The Australian Acceptable Daily Intake (ADI) for diquat for a human is 0.002 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 0.2 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)

## 12 Ecological Information

**Ecotoxicity:**

Non-toxic to bees. Moderately toxic to birds.

**CAS: 85-00-7 Diquat dibromide**

LD50	200-400 mg/kg (hen)
	564 mg/kg (Anas platyrhynchos (mallard duck))

**Aquatic toxicity:**

Toxic to aquatic life with long lasting effects.

**CAS: 85-00-7 Diquat dibromide**

IC50/96 h (static)	21 mg/l (Oncorhynchus mykiss (rainbow trout))
EC50/48 h	5.9 mg/l (Daphnia magna (water flea))

**Persistence and Degradability:** Highly persistent, diquat half life in soil: >1000 days. May accumulate in soil.

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

**Mobility in Soil:** If it enters soil, it will adsorb to soil particles and will not be mobile.

**Other adverse effects:** No further relevant information available.

## 13 Disposal Considerations

**Disposal Methods and Containers:**

Must not be disposed together with household garbage. Do not allow product to reach sewage system. 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

<b>UN Number</b>	
<b>ADG, IMDG, IATA</b>	UN1760
<b>Proper Shipping Name</b>	
<b>ADG, IMDG, IATA</b>	CORROSIVE LIQUID, N.O.S. (Diquat dibromide)
<b>Dangerous Goods Class</b>	
<b>ADG Class:</b>	8
<b>Packing Group:</b>	
<b>ADG, IMDG, IATA</b>	III
<b>Marine pollutant:</b>	Yes
	Symbol (fish and tree)
<b>EMS Number:</b>	F-A,S-B
<b>Hazchem Code:</b>	2X
<b>Special Provisions:</b>	223, 274
<b>Excepted quantities (EQ):</b>	E1

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**Limited Quantities:** 5L

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

**Packagings & IBCs - Special Packing Provisions:** None

**Portable Tanks & Bulk Containers - Instructions:** T7

**Portable Tanks & Bulk Containers - Special Provisions:** TP1, TP28

### 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 approval number 64177.

### 16 Other Information

**Date of Preparation or Last Revision:** 17.07.2025**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

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)

Acute toxicity - oral - Category 4: Acute toxicity - Category 4

Acute toxicity - inhalation - Category 2: Acute toxicity - Category 2

Acute toxicity - inhalation - Category 3: Acute toxicity - Category 3

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

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

Skin sensitisation - Category 1: Skin sensitisation, Hazard Category 1

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

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

Aquatic Chronic 2: Hazardous to the aquatic environment, long-term (Chronic). Category 2

**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".

The information contained in this 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. MSDS.COM.AU Pty Ltd is not in a position to warrant the accuracy of the data herein. 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.