



# SAFETY DATA SHEET

According to Safe Work Australia

Printing date 13.08.2021

Revision: 13.08.2021

## 1. IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

**Product Name:** 4FARMERS BROWN OUT 250 HERBICIDE

**Other Means of Identification:** Mixture

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

**Uses Advised Against:**

FOR USE ONLY AS AN AGRICULTURAL AND HORTICULTURAL HERBICIDE. THIS PRODUCT IS TOO HAZARDOUS TO BE USED IN THE HOME GARDEN.

**Details of Manufacturer or Importer:**

4Farmers Australia Pty Ltd  
70 McDowell Street  
Welshpool WA 6106

**Phone Number:** +61 8 9356 3446

**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.

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



skull and crossbones

Acute Tox. (Inhalation) 2 H330 Fatal if inhaled.



health hazard

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.



environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



Acute Tox. (Oral) 4 H302 Harmful if swallowed.

Acute Tox. (Dermal) 4 H312 Harmful in contact with skin.

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

Aquatic Acute 2 H401 Toxic to aquatic life.

**Signal Word** Danger

**Hazard Statements**

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

H330 Fatal if inhaled.

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.  
P284 [In case of inadequate ventilation] wear respiratory protection.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P273 Avoid release to the environment.  
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.  
P310 Immediately call a POISON CENTER/doctor.  
P320 Specific treatment is urgent (see on this label).  
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P314 Get medical advice/attention if you feel unwell.  
P330 Rinse mouth.  
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.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
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:**

Hazardous Components:		
1910-42-5	Paraquat (present as paraquat dichloride) Acute Tox. (Oral) 3, H301; Acute Tox. (Dermal) 3, H311; Acute Tox. (Inhalation) 2, H330; ⚠ STOT RE 1, H372; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	11.5%
85-00-7	Diquat dibromide Acute Tox. (Inhalation) 2, H330; STOT RE 1, H372; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. (Oral) 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	9.8%

**Additional information:**

This product contains a stenching agent, &lt;1% and an emetic, &lt;1%. CAS numbers not supplied.

### 4. FIRST AID MEASURES

**Inhalation:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. OBTAIN IMMEDIATE MEDICAL ATTENTION. SPEED IS ESSENTIAL.

**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 immediate medical attention.

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**Ingestion:**

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

**Information for Doctor:**

RAPID TREATMENT FOR PARAQUAT POISONING IS ESSENTIAL. Evacuation of the stomach, stomach washout and administration of adsorbents should be carried out as quickly as possible. A booklet entitled 'Paraquat Poisoning, a practical guide to diagnosis, first aid and hospital treatment' prepared by Syngenta) is available at major hospitals or Poisons Information Centres.

TREATMENT: Wash out stomach and test urine and gastric aspirate (if clear) for presence of paraquat. Give activated charcoal (100 g for adults or 2 g / kg body weight for children) orally or via gastric tube, together with a suitable purgative (200 ml of an aqueous solution of mannitol). Alternatively, 1 litre of 15% aqueous suspension of Fuller's Earth or a 7% suspension of bentonite in 10% glycerol in water should be used if activated charcoal is unavailable. Repeat administration of adsorbent plus purgative until adsorbent is seen in the stools. This should normally take between 4 and 6 hours after the start of

treatment. NOTE: The use of gastric lavage without administration of an adsorbent has not shown any clinical benefit. Do not use supplemental oxygen. Treat skin irritation / damage symptomatically with daily review if contaminated with concentrate as blistering and chemical burns may develop over 1 to 3 days. If systemic toxicity is suspected, test for paraquat in urine or blood and treat confirmed paraquat systemic toxicity as above.

**Symptoms Caused by Exposure:**

Inhalation: Fatal if inhaled. Spray mist or dust may cause nose bleeds and soreness of the throat. Irritating to the respiratory system. Pulmonary oedema may occur up to 48 hours after exposure and could prove fatal. If the concentrate is allowed to dry out, solid paraquat dust can be created. Paraquat dust is highly toxic and should not be handled without full respiratory protection. This product contains a stenching agent to give it an offensive smell, this has been done to reduce the likelihood of accidental inhalation. This stenching agent may cause headaches and nausea in some people when inhaled. The presence of this offensive smell in the air does not necessarily indicate the presence of paraquat.

Skin Contact: Toxic in contact with skin. Contact with concentrate causes moderate irritation and inflammation and in severe cases blistering of the skin. Contamination of the nails may cause white spots or in severe cases cracking and loss of the nail with normal growth following. Intact skin is a very effective barrier to paraquat but damaged, abraded or cut skin may allow absorption of paraquat and cause similar effects to those of ingestion.

Eye Contact: Eye irritation may be delayed. May cause ulceration of corneal and conjunctival epithelium.

Ingestion: Toxic if swallowed. Immediate effects of poisoning depend on the dose of paraquat absorbed into the blood. Mild poisoning occurs at <20mg paraquat ion / kg body weight and the effects are vomiting and diarrhoea. Moderate to severe poisoning occurs at 20-30 mg paraquat ion / kg of body weight and the effects are vomiting, abdominal discomfort, soreness and inflammation of the mouth, throat and oesophagus, difficulty in swallowing and diarrhoea. Kidney and liver damage may appear 1-3 days after exposure. Can cause death by a delayed proliferating fibrosis of the lung within 1-3 weeks. Lethal poisoning occurs at >30mg paraquat ion / kg body weight and the effects are nausea and vomiting, and multi-organ failure and circulatory collapse within 48 hours.

## 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 and nitrogen, hydrogen chloride, phosgene, and other pyrolysis products.

This product is not flammable or 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.

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**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, safety glasses, 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. 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 containers tightly closed when not in use.

This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. If you keep more than 10000kg or L of Dangerous Goods of Packaging Group III, you may be required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

**8 . EXPOSURE CONTROLS AND PERSONAL PROTECTION****Exposure Standards:****85-00-7 Diquat dibromide**

NES	TWA: 0.5 mg/m <sup>3</sup>
	Sen

**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 A-P type 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.

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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:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Dark green to blue
<b>Odour:</b>	Characteristic pyridine odour
<b>Odour Threshold:</b>	No information available
<b>pH-Value:</b>	5.0 - 6.5 (1% solution)
<b>Melting point/Melting range:</b>	No information available
<b>Initial Boiling Point/Boiling Range:</b>	~100 °C
<b>Flash Point:</b>	Not applicable
<b>Flammability:</b>	Product is not flammable.
<b>Auto-ignition Temperature:</b>	Not applicable
<b>Decomposition Temperature:</b>	No information available
<b>Explosion Limits:</b>	
<b>Lower:</b>	Not applicable
<b>Upper:</b>	Not applicable
<b>Vapour Pressure:</b>	Not applicable
<b>Relative Density:</b>	1.16
<b>Vapour Density:</b>	Not applicable
<b>Evaporation Rate:</b>	No information available
<b>Solubility in Water:</b>	Miscible

## 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. Paraquat is inactivated by adsorption onto clay.

**Conditions to Avoid:** No further relevant information available.

**Incompatible Materials:** No further relevant information available.

**Hazardous Decomposition Products:**

Oxides of carbon and nitrogen, hydrogen chloride, phosgene and other pyrolysis products.

## 11 . TOXICOLOGICAL INFORMATION

**Toxicity:****LD<sub>50</sub>/LC<sub>50</sub> Values Relevant for Classification:****1910-42-5 Paraquat (present as paraquat dichloride)**

	LD <sub>50</sub>	20 mg/kg (mouse) (Intraperitoneal)
		21 mg/kg (rat) (Intravenous)
		26 mg/kg (rat) (Intraperitoneal)

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Oral	LD <sub>50</sub>	37 mg/kg (mouse) (Subcutaneous)
		120 mg/kg (mouse)
		22 mg/kg (guinea pig)
Dermal	LD <sub>50</sub>	57 mg/kg (rat)
		325 mg/kg (rabbit)
		80 mg/kg (rat)

## Acute Health Effects

### Inhalation:

Fatal if inhaled. Spray mist or dust may cause nose bleeds and soreness of the throat. Irritating to the respiratory system. Pulmonary oedema may occur up to 48 hours after exposure and could prove fatal. If the concentrate is allowed to dry out, solid paraquat dust can be created. Paraquat dust is highly toxic and should not be handled without full respiratory protection. This product contains a stenching agent to give it an offensive smell, this has been done to reduce the likelihood of accidental inhalation. This stenching agent may cause headaches and nausea in some people when inhaled. The presence of this offensive smell in the air does not necessarily indicate the presence of paraquat.

### Skin:

Toxic in contact with skin. Contact with concentrate causes moderate irritation and inflammation and in severe cases blistering of the skin. Contamination of the nails may cause white spots or in severe cases cracking and loss of the nail with normal growth following. Intact skin is a very effective barrier to paraquat but damaged, abraded or cut skin may allow absorption of paraquat and cause similar effects to those of ingestion.

**Eye:** Eye irritation may be delayed. May cause ulceration of corneal and conjunctival epithelium.

### Ingestion:

Toxic if swallowed. Immediate effects of poisoning depend on the dose of paraquat absorbed into the blood. Mild poisoning occurs at <20mg paraquat ion / kg body weight and the effects are vomiting and diarrhoea. Moderate to severe poisoning occurs at 20-30 mg paraquat ion / kg of body weight and the effects are vomiting, abdominal discomfort, soreness and inflammation of the mouth, throat and oesophagus, difficulty in swallowing and diarrhoea. Kidney and liver damage may appear 1-3 days after exposure. Can cause death by a delayed proliferating fibrosis of the lung within 1-3 weeks. Lethal poisoning occurs at >30mg paraquat ion / kg body weight and the effects are nausea and vomiting, and multi-organ failure and circulatory collapse within 48 hours.

**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:** 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:

Repeated or prolonged skin exposure may cause skin redness, swelling and dermatitis. Repeated or prolonged eye contact may cause conjunctivitis. Reactive Airways Dysfunction Syndrome (RADS) may occur following exposure, causing asthma-like symptoms.

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

The Australian Acceptable Daily Intake (ADI) for paraquat for a human is 0.004 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL 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.

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 NOEL 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: Comm. Dept. of Health and Ageing Office of Chemical Safety, 'ADI List', March 2016).

Paraquat dichloride has been found to cause somnolence, convulsions, excitement, pulmonary oedema, emphysema, interstitial fibrosis, dyspnea, stomach ulcers, diarrhoea, nausea, vomiting, changes to the liver and kidneys, changes to fertility and developmental effects.

## 12 . ECOLOGICAL INFORMATION

**Ecotoxicity:** No information available**Aquatic toxicity:** Toxic to aquatic life with long lasting effects.**Persistence and Degradability:**

Diquat dibromide and paraquat dichloride are both highly persistent in water and soil.

**Bioaccumulative Potential:** This product has a low potential for bioaccumulation.**Mobility in Soil:** Diquat dibromide and paraquat dichloride are both moderately mobile.

## 13 . DISPOSAL CONSIDERATIONS

**Disposal Methods and Containers:** Dispose according to applicable local and state government regulations.**Special Precautions for Landfill or Incineration:**

The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals, contact ChemClear 1800 008 182 <http://www.chemclear.com.au/> and for help with the disposal of empty drums, contact DrumMuster <http://www.drummuster.com.au/> where you will find contact details for your area.

## 14 . TRANSPORT INFORMATION

<b>UN Number</b>	UN3016
<b>ADG, IMDG, IATA</b>	
<b>Proper Shipping Name</b>	BIPYRIDILUM PESTICIDE, LIQUID, TOXIC,
<b>ADG</b>	ENVIRONMENTALLY HAZARDOUS
<b>IMDG, IATA</b>	BIPYRIDILUM PESTICIDE, LIQUID, TOXIC
<b>Dangerous Goods Class</b>	
<b>ADG Class:</b>	6.1 Toxic substances.
<b>Packing Group:</b>	
<b>ADG, IMDG, IATA</b>	III
<b>EMS Number:</b>	F-A,S-A
<b>Hazchem Code:</b>	2X
<b>Special Provisions:</b>	61, 223, 274

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**Limited Quantities:** 5L  
**Packagings & IBCs - Packing Instruction:** P001, IBC03, LP01  
**Packagings & IBCs - Special Packing Provisions:** No information available  
**Portable Tanks & Bulk Containers - Instructions:** T7  
**Portable Tanks & Bulk Containers - Special Provisions:** TP2, TP28

## 15 . REGULATORY INFORMATION

### Australian Inventory of Chemical Substances:

1910-42-5	Paraquat (present as paraquat dichloride)
85-00-7	Diquat dibromide
7732-18-5	Water

**Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:**  
Poisons Schedule: 7

## 16 . OTHER INFORMATION

**Date of Preparation or Last Revision:** 13.08.2021

**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)  
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)  
Acute Tox. (Oral) 3: Acute toxicity – Category 3  
Acute Tox. (Oral) 4: Acute toxicity – Category 4  
Acute Tox. (Inhalation) 2: Acute toxicity – Category 2  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A  
Skin Sens. 1: Skin sensitisation, Hazard Category 1  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1  
Aquatic Acute 1: Hazardous to the aquatic environment, short-term (Acute). Category 1  
Aquatic Acute 2: Hazardous to the aquatic environment, short-term (Acute). Category 2  
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 - December 2011"

The information contained in this safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. 4Farmers Australia 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.