



According to Safe Work Australia

Printing date 05.09.2016 Revision:10.08.2020

Product Name: 4FARMERS PARAQUAT 250 HERBICIDE

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. (Oral) 3 H301 Toxic if swallowed.

Acute Tox. (Dermal) 3 H311 Toxic in contact with skin.

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 Acute 1 H400 Very toxic to aquatic life.

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



Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation. STOT SE 3 H335 May cause respiratory irritation.

Signal Word Danger

Hazard Statements

H301+H311 Toxic if swallowed or in contact with skin.

H330 Fatal if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

(Contd. on page 2)

According to Safe Work Australia

Printing date 05.09.2016 Revision: 10.08.2020

Product Name: 4FARMERS PARAQUAT 250 HERBICIDE

(Contd. of page 1)

H335	May cause	respirator	y irritation.
------	-----------	------------	---------------

H372 Causes damage to organs through prolonged or repeated exposure.

H410 Very 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.

P301+P310 IF SWALLOWED: Immediately 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.

P320 Specific treatment is urgent (see on this label).

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: 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.

P361+P364 Take off immediately all 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:

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

Pyridine

25%

Flam. Liq. 2, H225; Acute Tox. (Oral) 4, H302; Acute Tox. (Dermal) 4, H312; Acute Tox. (Inhalation) 4, H332

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. DO NOT allow clothing wet with material to stay in contact with skin. Seek immediate medical attention.

(Contd. on page 3)

According to Safe Work Australia

Printing date 05.09.2016 Revision:10.08.2020

Product Name: 4FARMERS PARAQUAT 250 HERBICIDE

(Contd. of page 2)

Eye Contact:

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

Ingestion:

If swallowed, do not induce vomiting. Do not give anything by mouth to an unconscious person. OBTAIN IMMEDIATE MEDICAL ATTENTION. SPEED IS ESSENTIAL.

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: Water spray or fog, foam and dry chemical powder.

Specific Hazards Arising from the Chemical:

(Contd. on page 4)

According to Safe Work Australia

Printing date 05.09.2016 Revision:10.08.2020

Product Name: 4FARMERS PARAQUAT 250 HERBICIDE

(Contd. of page 3)

Hazardous combustion products include oxides of carbon and nitrogen, phosgene and hydrogen chloride and other poisonous fumes.

Slight fire hazard when exposed to heat or flame.

May form flammable/ explosive vapour-air mixtures.

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 Safe Work Australia approved respiratory protection and full protective clothing. 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 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, out of reach of children. Store only in original container, tightly closed when not in use. Protect from direct sunlight. Keep away from metals such as aluminium, zinc and iron and strong oxidising agents.

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:

110-86-1 Pyridine

NES TWA: 16 mg/m³, 5 ppm

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

NES TWA: 0.1 mg/m³

Engineering Controls:

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

Respiratory Protection:

Use a Safe Work Australia 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

(Contd. on page 5)

According to Safe Work Australia

Printing date 05.09.2016 Revision: 10.08.2020

Product Name: 4FARMERS PARAQUAT 250 HERBICIDE

(Contd. of page 4)

and 1716 for more information.

Skin Protection:

Elbow-length PVC gloves, cotton overall buttoned to the neck and wrist, safety boots and a washable hat. See Australian Standards AS/NZS 2161, 2210.1 and 2210.2 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:

Face shield or goggles 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 blue
Odour: Offensive

Odour Threshold: No information available

pH-Value: 7

Melting point/Melting range: approx 0 °C (water)
Initial Boiling Point/Boiling Range: > 100 °C (water)
Flash Point: Not applicable

Flammability: Product is not flammable.

Auto-ignition Temperature: Not applicable

Decomposition Temperature:No information available

Explosion Limits:

Lower: Not applicable Upper: Not applicable

Vapour Pressure: No information available

Relative Density: 1.1 g/cm³

Vapour Density:No information availableEvaporation Rate:No information available

Solubility in Water: Miscible

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 use. Paraquat is inactivated by adsorption onto clay.

Conditions to Avoid: Direct sunlight.

Incompatible Materials:

Aluminium, iron, mild steel and strong oxidising agents.

Pyridine reacts violently with strong oxidisers, chlorine, fluorine, strong acids, bromine trifluoride, chromic acid, chromium trioxide, dinitrogen tetraoxide, maleic anhydride, perchromates, phosphorus oxychloride, beta-propiolactone, propionaldehyde, silver perchlorate abd sulfur trioxide. Reaction with strong acids may cause violent splattering.

Pyridine is incompatible with organic anhydrides, acrylates, alcohols, aldehydes, alkylene oxides, substituted allyls, cellulose nitrate, cresols, caprolactam solution, epichlorohydrin,ethylene dichloride, formamide, hydroxylamine, glycols, isocyanates, ketones, lithium aluminium hydride, magnesium tetrahydroaluminate, nitrates, phenols and vinyl acetate.

Pyridine forms heat- and shock-sensitive explosive materials with digold ketenide, nitroalkanes, trifluoromethyl hypofluorite.

According to Safe Work Australia

Printing date 05.09.2016 Revision: 10.08.2020

Product Name: 4FARMERS PARAQUAT 250 HERBICIDE

Hazardous Decomposition Products:

Following evaporation of aqueous component, combustion or thermal decomposition will generate toxic or irritating vapours.

11. TOXICOLOGICAL INFORMATION

Toxicity:

LD ₅₀ /LC ₅₀ Values Relevant for Classification:				
110-86-1	110-86-1 Pyridine			
Oral	LD ₅₀	891 mg/kg (rat)		
Dermal	LD ₅₀	1121 mg/kg (rabbit)		
1910-42-	5 Paraqua	at (present as paraquat dichloride)		
Oral	LD ₅₀	129 - 157 mg/kg (rat) 30-58 mg/kg (guinea pig) 104 mg/kg (mouse) 25-20 mg/kg (dog)		
Dermal	LD ₅₀	240 mg/kg (rabbit) (for paraquat ion) 911mg/kg (rat)		
Inhalation	LC₅₀/4h	0.5-105 μg/ (rat)		

Acute Health Effects

Inhalation:

TEATMENT OF PARAQUAT POISONING MUST BE UNDERTAKEN AS RAPIDLY AS POSSIBLE.

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:**

TREATMENT OF PARAQUAT POISONING MUST BE UNDERTAKEN AS RAPIDLY AS POSSIBLE.

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.

According to Safe Work Australia

Printing date 05.09.2016 Revision: 10.08.2020

Product Name: 4FARMERS PARAQUAT 250 HERBICIDE

Skin Corrosion / Irritation: Causes skin irritation.

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:

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:

May cause damage to organs through prolonged or repeated exposure.

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

Chronic Health Effects:

Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a nonallergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

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

Paraquat dichloride has been extensively tested on laboratory mammals and in test tube systems. No evidence was obtained of mutagenic, carcinogenic, or teratogenic effects. Ocular effects (cataracts) have been reported following long term oral exposure of laboratory animals.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Paraquat dichloride is not toxic to bees.

LD50 262-380 mg/kg (hen)

LD50 981 mg/kg (bobwhite quail)

LD50 970 mg/kg (japanese quail)

LD50 4048 mg/kg (mallard duck)

Aquatic toxicity:

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

EC₅₀ 0.32 mg/L/72hr (algae) EC₅₀/48 h 1.2 mg/l (daphnia) LC₅₀/96 h 15 mg/l (rainbow trout)

Very toxic to aquatic life with long lasting effects.

Persistence and Degradability: No information available

Bioaccumulative Potential: Paraquat does not bioaccumulate.

Mobility in Soil:

Paraquat is readily absorbed and inactivated by soil. There is no mobility in soil or into ground water.

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

According to Safe Work Australia

Printing date 05.09.2016 Revision: 10.08.2020

Product Name: 4FARMERS PARAQUAT 250 HERBICIDE

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

UN Number

ADG, IMDG, IATA UN3016

Proper Shipping Name

ADG BIPYR IDILIUM PESTICIDE, LIQ UID, TOXIC,

ENVIRONMENTALLY HAZARDOUS

IMDG BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC, MARINE

POLLUTANT

IATA BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC

Dangerous Goods Class

ADG Class: 6.1 Toxic substances.

Packing Group:

ADG, IMDG, IATA III

Marine pollutant: Yes

Hazchem Code: 2X

Special Provisions: 61, 223, 274

Limited Quantities: 5L

Packagings & IBCs - Packing Instruction: P001, IBC03, LP01
Packagings & IBCs - Special Packing Provisions: Not applicable

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)

110-86-1 Pyridine 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: 10.08.2020

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)

Flam. Liq. 2: Flammable liquids - Category 2

According to Safe Work Australia

Printing date 05.09.2016 Revision: 10.08.2020

Product Name: 4FARMERS PARAQUAT 250 HERBICIDE

(Contd. of page 8)

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

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 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. 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. 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.