

## Section 1 - Identification

**Four Seasons Agribusiness**  
**287 Boorowa Street**  
**Young NSW 2594 AUSTRALIA**

**Phone: 1300 449 255**  
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**Chemical nature:** Herbicide containing paraquat and diquat salts.  
**Trade Name:** **F.S.A. Paraquat + Diquat 250 Herbicide**  
**Product Use:** Agricultural herbicide for use as described on the product label.  
**Creation Date:** **October, 2024**  
**This version issued:** **October, 2024** and is valid for 5 years from this date.  
**Poisons Information Centre: Phone 13 1126 from anywhere in Australia**

## Section 2 - Hazards Identification

### Statement of Hazardous Nature

**SUSMP Classification:** S7

**ADG Classification:** Class 6.1: Toxic Substances.

**UN Number:** 3016, BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC



### GHS Signal word: DANGER

Acute Toxicity Oral Category 4  
 Skin Irritation Category 2  
 Skin Sensitisation Category 1  
 Eye irritation Category 2A  
 Acute Toxicity Inhalation Category 2  
 Specific Target Organ Toxicity - Single Exposure Category 3  
 Specific Target Organ toxicity - repeated exposure Category 1  
 Acute Toxicity Oral and Dermal Category 4  
 Hazardous to aquatic environment Short term/Chronic Category 1

#### HAZARD STATEMENT:

H302: Harmful if swallowed.  
 H315: Causes skin irritation.  
 H317: May cause an allergic skin reaction.  
 H319: Causes serious eye irritation.  
 H330: Fatal if inhaled.  
 H335: May cause respiratory irritation.  
 H372: Causes damage to organs through prolonged or repeated exposure.  
 H302+H312: Harmful if swallowed or in contact with skin.  
 H410: Very toxic to aquatic life with long lasting effects.

#### PREVENTION

P220: Keep or store away from combustible materials.  
 P260: Do not breathe fumes, mists, vapours or spray.  
 P262: Do not get in eyes, on skin, or on clothing.  
 P264: Wash contacted areas 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.  
 P280: Wear protective gloves, protective clothing and eye or face protection.  
 P284: Wear respiratory protection.

#### RESPONSE

P310: Immediately call a POISON CENTRE or doctor/physician.  
 P314: Get medical advice or attention if you feel unwell.  
 P363: Wash contaminated clothing before reuse.  
 P301+P310: IF SWALLOWED: Immediately call a POISON CENTRE or doctor.  
 P301+P312: IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.

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

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P304+P340: IF INHALED: Remove victim to fresh air and keep 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.

P333+P313: If skin irritation or rash occurs: Get medical advice.

P337+P313: If eye irritation persists: Get medical advice or attention.

P370+P378: In case of fire: Use carbon dioxide, dry chemical, foam, to extinguish.

#### STORAGE

P405: Store locked up.

P410: Protect from sunlight.

P402+P404: Store in a dry place. Store in a closed container.

P403+P235: Store in a well-ventilated place. Keep cool.

#### DISPOSAL

P501: Dispose of contents and containers as specified on the registered label.

### Emergency Overview

**Physical Description & Colour:** Liquid, no data regarding colour.

**Odour:** Likely to have an unpleasant odour.

### Section 3 – Composition and Information on Ingredients

Ingredients	CAS No	Conc, g/L	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
Paraquat (as dichloride)	1910-42-5	135	0.1	not set
Diquat (as dibromide monohydrate)	85-00-7	115	0.5	not set
Other non hazardous ingredients	secret	to 1 L	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

### Section 4 - First Aid Measures

#### General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

**Inhalation:** Remove from contaminated area. Apply artificial respiration if not breathing. Do not give direct mouth-to-mouth resuscitation. To protect rescuer, use air-viva, oxy-viva or one-way mask Resuscitate in a well-ventilated area.

**Skin Contact:** Seek urgent medical attention. Flush contaminated area with lukewarm, gently flowing water for at least 60 minutes, by the clock. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting (show paramedics this SDS and take their advice). Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts).

**Eye Contact:** Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

**Ingestion:** If swallowed, do NOT induce vomiting. Rinse mouth thoroughly with water and contact a Poisons Information Centre, or call a doctor at once. Give activated charcoal if instructed.

### Section 5 - Fire Fighting Measures

**Fire and Explosion Hazards:** The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is little risk of an explosion from this product if commercial quantities are involved in a fire.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

**Extinguishing Media:** In case of fire, use carbon dioxide, dry chemical, foam. Water fog or fine spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.

**Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade. There is little danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is liquid-tight chemical protective clothing and breathing apparatus.

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## Section 6 - Accidental Release Measures

**Accidental release:** In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the Fire Brigade. Wear full protective chemically resistant clothing including eye/face protection, gauntlets and self contained breathing apparatus. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include no specific manufacturer recommendations. Use impermeable gloves with care. Eye/face protective equipment should comprise, as a minimum, protective glasses and, preferably, goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. It should be fitted with a cartridge suitable for agricultural chemicals, such as type G.

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Because of the toxicity of this product, special personal care should be taken in any cleanup operation. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this SDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

## Section 7 - Handling and Storage

**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in a cool, well ventilated area. Check containers periodically for leaks. Containers should be kept closed in order to minimise contamination. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. If you keep more than 2500kg or L of Dangerous Goods of Packaging Group II, 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.

## Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

SWA Exposure Limits	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
Paraquat dichloride	0.1	not set
Diquat dibromide monohydrate	0.5	not set

The ADI for Diquat is set at 0.002mg/kg/day. The corresponding NOEL is set at 0.2mg/kg/day. ADI means Acceptable Daily Intake

NOEL means No-observable-effect-level. Data from Australian ADI List, March 2017.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

**Eye Protection:** Protective glasses or goggles must be worn when this product is being used. Failure to protect your eyes may lead to severe harm to them or to general health. Emergency eye wash facilities must also be available in an area close to where this product is being used.

**Skin Protection:** Prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types.

**Protective Material Types:** There is no data that enables us to recommend any type except that it should be impermeable.

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**Respirator:** If there is a significant chance that vapours or mists are likely to build up in the area where this product is being used, we recommend that you use a respirator. It should be fitted with a cartridge suitable for agricultural chemicals, such as type G.

Eyebaths or eyewash stations should, if practical, be provided near to where this product is being handled commercially.

### Section 9 - Physical and Chemical Properties:

<b>Physical Description &amp; colour:</b>	Liquid, no data regarding colour.
<b>Odour:</b>	Likely to have an unpleasant odour.
<b>Freezing/Melting Point:</b>	No specific data. Liquid at normal temperatures.
<b>Boiling Point:</b>	Not available.
<b>Flash point:</b>	No data
<b>Upper Flammability Limit:</b>	No data.
<b>Lower Flammability Limit:</b>	No data.
<b>Flammability Class:</b>	No data.
<b>Volatiles:</b>	No data.
<b>Vapour Pressure:</b>	No data.
<b>Vapour Density:</b>	No data.
<b>Specific Gravity:</b>	No data.
<b>Water Solubility:</b>	No data.
<b>pH:</b>	No data.
<b>Volatility:</b>	No data.
<b>Odour Threshold:</b>	No data.
<b>Evaporation Rate:</b>	No data.
<b>Coeff Oil/water Distribution:</b>	No data
<b>Particle Characteristics:</b>	Not applicable for liquids.
<b>Autoignition temp:</b>	No data.

### Section 10 - Stability and Reactivity

**Reactivity:** This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

**Conditions to Avoid:** Keep isolated from combustible materials. Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

**Incompatibilities:** strong acids, strong bases, strong oxidising agents.

**Fire Decomposition:** Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form hydrogen chloride gas, other compounds of chlorine. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

**Polymerisation:** Polymerisation reactions are unlikely. They are not expected to occur.

### Section 11 - Toxicological Information

**Toxicity:** Paraquat Dichloride: LD50 Oral, Rat 157mg/kg      LD50 Oral, Mouse = 104mg/kg

LD50 Oral, Guinea Pig = 22-42mg/kg      LD50 Oral, Dog = 25-50mg/kg

LD50 Dermal, Rat = 236-500mg/kg

This product may affect lungs, gastrointestinal system, eyes, skin. Ingredients in this product have an established TWA, so exposure by inhalation should be avoided.

### Classification of Hazardous Ingredients

Ingredient	Health Hazard Statement Codes
Paraquat dichloride	H330, H311, H301, H372, H319, H335, H315, H410
<ul style="list-style-type: none"> <li>Acute toxicity – category 2</li> <li>Acute toxicity – category 3</li> <li>Acute toxicity – category 3</li> <li>Specific target organ toxicity (repeated exposure) – category 1</li> <li>Specific target organ toxicity (single exposure) – category 3</li> <li>Skin irritation – category 2</li> <li>Hazardous to the aquatic environment (acute) – category 1</li> <li>Eye irritation – category 2</li> </ul>	

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- Hazardous to the aquatic environment (chronic) – category 1

Diquat dibromide monohydrate H330, H372, H302, H319, H335, H315, H317, H410

- Acute toxicity – category 2
- Specific target organ toxicity (repeated exposure) – category 1
- Acute toxicity – category 4
- Eye irritation – category 2
- Skin irritation – category 2
- Skin sensitisation – category 1
- Hazardous to the aquatic environment (acute) – category 1
- Specific target organ toxicity (single exposure) – category 3
- Hazardous to the aquatic environment (chronic) – category 1

## Potential Health Effects

### Inhalation:

**Short Term Exposure:** Available data shows that this product is very toxic, but symptoms are not available. In addition product is an inhalation irritant. Symptoms may include headache, irritation of nose and throat and increased secretion of mucous in the nose and throat. Other symptoms may also become evident, but they should disappear after exposure has ceased.

**Long Term Exposure:** No data for health effects associated with long term inhalation.

### Skin Contact:

**Short Term Exposure:** Available data shows that this product is harmful, but symptoms are not available. In addition product is a skin irritant. Symptoms may include itchiness and reddening of contacted skin. Other symptoms may also become evident, but all should disappear once exposure has ceased.

**Long Term Exposure:** No data for health effects associated with long term skin exposure.

### Eye Contact:

**Short Term Exposure:** This product is a severe eye irritant. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms such as swelling of eyelids and blurred vision may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment is likely to cause permanent damage.

**Long Term Exposure:** No data for health effects associated with long term eye exposure.

### Ingestion:

**Short Term Exposure:** Significant oral exposure is considered to be unlikely. Available data shows that this product is toxic, but further symptoms are not available. However, this product is an oral irritant. Symptoms may include burning sensation and reddening of skin in mouth and throat. Other symptoms may also become evident, but all should disappear once exposure has ceased.

**Long Term Exposure:** No data for health effects associated with long term ingestion.

### Carcinogen Status:

**SWA:** No significant ingredient is classified as carcinogenic by SWA.

**NTP:** No significant ingredient is classified as carcinogenic by NTP.

**IARC:** No significant ingredient is classified as carcinogenic by IARC.

## Section 12 - Ecological Information

This product is very toxic to aquatic life with long lasting effects. This product is not readily biodegradable; it may accumulate in the soil or water and cause long term problems.

Paraquat Dichloride:

Birds: LD50 hen: 262-380mg/kg LD50 bobwhite quail: 981mg/kg

LD50 Japanese quail: 970mg/kg LD50 mallard duck: 4048mg/kg

Fish: LC50 rainbow trout: 32mg/L LC50 brown trout: 2.15-13mg/L

Environmental fate:

Animals: In rats, following oral administration, 76-90% of the dose was excreted in the faeces, and 11-20% in urine.

Plants: On plant surfaces, photochemical degradation occurs. Degradation products which have been isolated include 1-methyl-4-carboxypyridinium chloride and methylamine hydrochloride.

Soil/environment: Clays and organic materials rapidly and strongly absorb paraquat, resulting in complete deactivation. Typical strong absorption capacities vary from 20-3000mg/kg soil depending on clay or organic material content. Desorption requires digestion with 12N sulfuric acid for several hours.

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## Section 13 - Disposal Considerations

**Disposal:** This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to separate the contamination in some way. Only if neither of these options is suitable, we suggest that you contact a specialist disposal company to arrange disposal. Disposal by untrained personnel may cause a dangerous incident.

## Section 14 - Transport Information

**Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.**

**UN Number:** 3016, BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC

**Hazchem Code:** 2X

**Special Provisions:** 61, 274

**Limited quantities:** ADG 7 specifies a Limited Quantity value of 100 ml for this class of product.

**Dangerous Goods Class:** Class 6.1: Toxic Substances.

**Packing Group:** II

**Packing Instruction:** P001, IBC02

Class 6 Toxic Substances shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 3 (Flammable Liquids where the Flammable Liquid is nitromethane), 5.1 (Oxidising Agents where the Toxic Substances are Fire Risk Substances), 5.2 (Organic Peroxides where the Toxic Substances are Fire Risk Substances), 8 (Corrosive Substances where the Toxic Substances are cyanides and the Corrosives are acids), Foodstuffs and foodstuff empties. They may however be loaded in the same vehicle or packed in the same freight container with Classes, 2.1 (Flammable Gases), 2.2 (Non-Flammable, Non-Toxic Gases), 2.3 (Toxic Gases), 3 (Flammable liquids, except where the flammable liquid is nitromethane), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents except where the Toxic Substances are Fire Risk Substances), 5.2 (Organic Peroxides except where the Toxic Substances are Fire Risk Substances), 7 (Radioactive Substances), 8 (Corrosive Substances except where the Toxic Substances are cyanides and the Corrosives are acids), 9 (Miscellaneous Dangerous Goods)

## Section 15 - Regulatory Information

**AICS:** All of the significant ingredients in this formulation are compliant with AICIS regulations.

The following ingredients: Paraquat (as dichloride), Diquat (as dibromide monohydrate), are mentioned in the SUSMP.

## Section 16 - Other Information

**This SDS contains only safety-related information. For other data see product literature.**

### Acronyms:

<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 <sup>th</sup> edition)
<b>AICS/AIIC</b>	Australian Inventory of Industrial Chemicals
<b>SWA</b>	Safe Work Australia, formerly ASCC and NOHSC
<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>Hazchem Code</b>	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
<b>IARC</b>	International Agency for Research on Cancer
<b>NOS</b>	Not otherwise specified
<b>NTP</b>	National Toxicology Program (USA)
<b>SUSMP</b>	Standard for the Uniform Scheduling of Medicines & Poisons
<b>UN Number</b>	United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (July 2020) and GHS Revision 7  
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## SAFETY DATA SHEET

**SAFETY DATA SHEET**