



# Safety Data Sheet

In accordance with Safe Work Australia

Effective Date: 30 August 2015

## 1. Product identifier & identity for the chemical

<b>Product Identifier</b>	<b>CHOICE PARAQUAT 250 HERBICIDE</b>
<b>Active Constituent</b>	250g/L PARAQUAT present as PARAQUAT DICHLORIDE
<b>Other means of Identification</b>	Agricultural herbicide. Grow Choice product code number: 361 AVPMA registered number: 62096
<b>Recommended use of the chemical and restrictions on use</b>	For the control of wide range of grasses and broadleaf weeds.
<b>Suppliers name, address and phone number:</b>	Grow Choice Pty Ltd 113 Fitzroy Street   TAMWORTH NSW 2340 Phone: 02 6766 3979 1800 817 676 Fax: 02 6766 2922   Email: rfagan@growchoice.com.au
<b>Emergency phone number:</b>	In Case Of Emergency Dial 000
<b>Poisons Information Centre</b>	Phone: 13 11 26 and speak to a Poisons Information Specialist. Fax: +61 2 9845 3597 <a href="http://www.chw.edu.au/poisons/contact.htm">http://www.chw.edu.au/poisons/contact.htm</a>

## 2. Hazard Identification (continued on page 2)

- Classified as **HAZARDOUS** in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (the GHS).
- Considered **DANGEROUS** for road and rail transport by the Australian Code for the Transport of Dangerous Goods Road and Rail (August 2014 edition)
- Considered **DANGEROUS** for transport by sea and air in accordance with the IMDG Code 37-14 (refer Section 14)

**Summary of Hazardous Identifications** ADG Classification: **Class 6.1 Toxic substances:**  
UN Number: **3016 BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC**  
Poisons Schedule number: **S7**

**Classification of the hazardous chemical** Acute toxicity Category: 2  
Acute toxicity Category: 3  
Acute toxicity Category: 3  
Specific target organ toxicity (repeated exposure) Category 1  
Eye Irritation – Category 2  
Specific target organ toxicity (single exposure) – Category 3

<b>GHS symbol</b>	Acute Toxicity	Chronic Health Hazard	Health Hazard	Environment

**Signal word** **DANGER**

**General Precautionary Statements.** If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use

**Hazard Statements** Fatal If Inhaled  
Toxic in contact with skin  
Toxic if swallowed  
Causes damage to organs through prolonged or repeated exposure  
Causes serious eye irritation  
May cause respiratory irritation  
May cause drowsiness or dizziness

**Prevention Statements** P260: Do not breathe dust/fume/gas/mist/ vapours/spray.  
P271: Use only outdoors or in a well-ventilated area.  
P284: Wear respiratory protection.  
P280: Wear protective gloves/protective clothing.  
P264: Wash hands, arms, face and any exposed skin thoroughly after handling.

**Response Statements** P310 + 321: **IF INHALED OR SWALLOWED, Immediately call a POISON CENTER or doctor/physician.**  
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P302 + P352: IF ON SKIN: Wash with plenty of soap and water. (continued on page 2)  
P361: Remove/Take off immediately all contaminated clothing.

P363: Wash contaminated clothing before reuse  
 P270: Do not eat, drink or smoke when using this product.  
 P330: If swallowed, Rinse mouth, DO NOT induce vomiting.  
 P314: Get medical advice/attention if you feel unwell.  
 P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337 + P313: If eye irritation persists: Get medical advice/attention.

**Storage Statements**

P405: **Store locked up.**  
 P403 + P233: Store in a well-ventilated place. Keep container tightly closed.  
 Refer Section 7

**Disposal Statements**

P501: **Dispose of contents and container in accordance with local, regional and national regulations.**

**3. Composition/information on ingredients**

Chemical ingredients: CAS number and other unique identifiers: Concentration of ingredients:	Component	CAS No	Proportion
	Paraquat dichloride;	1910-42-5	250 g/L

**4. First Aid Measures**

**General Information: You will need to call the Poisons Information Centre and seek urgent medical attention if you have been poisoned, burned, inhaled or irritated by this product. The phone number is 131126 from anywhere in Australia (0800 764 766 in New Zealand) and is available 24 hours a day 7 days a week. When calling have this SDS with you and if possible the container.**

**Swallow**

RAPID TREATMENT IS ESSENTIAL IN CASE OF PARAQUAT POISONING.  
 Immediately transfer patient to nearest hospital or medical centre, warning by telephone of the estimated time of arrival so that the start of treatment is not delayed.  
 If swallowed, do NOT induce vomiting; make every effort to prevent vomit from entering the lungs by careful placement of the patient.  
 Rinse mouth. Slurry of activated charcoal or clay (fuller's earth, bentonite) may be administered by a trained person. Ingestion of activated charcoal tablets, food, or even plain dirt, may be of benefit if absorbent slurry cannot be given.

**Eye:**

If product gets in eyes, remove contact lenses if wearing and wash it out immediately with water for several minutes. Seek medical attention.

**Skin:**

Contact of the concentrate with abraded skin or skin with cuts must be avoided.  
 Wash affected areas thoroughly with soap and water. Remove contaminated clothing and launder before re-use. Seek medical advice immediately, but only after the exposed skin has been thoroughly washed.

**Inhaled**

Remove patient from exposure, keep warm and at rest. Obtain medical attention urgently.  
 Move affected person to fresh air and keep at rest until recovered. Obtain URGENT medical advice. If not breathing give artificial respiration and get urgent medical attention as soon as possible.

**Medical Attention and Special Treatment**

In Case Of Emergency Dial 000 and/or Poisons Information Centre: Phone: 13 11 26 and speak to a Poisons Information Specialist with a copy of this SDS or chemical Label.

**Advice to Doctor/Hospital**

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, or contact the emergency number at the end of this SDS.  
 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.

**5. Fire Fighting Measures**

**Suitable extinguishing media**

This product will not burn if involved in a fire, therefore choose extinguishing media to suit the burning material.

**Specific hazards arising from the chemical**

This product is non-combustible.  
 If involved in a fire, the dehydrated components may emit oxides of carbon oxides of nitrogen and hydrogen chloride.

**Special protective equipment and precautions for fire fighters**

Fire fighters should wear Safe Work Australia approved self-contained breathing apparatus (AS/NZS 1715/1716) and full protective gear. Keep unnecessary people away. If it can be done safely, remove intact containers from the fire. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of extinguishing agent and spillage safely later. Contamination of water bodies should be avoided.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures  
 Environmental precautions**

In case of spillage it is important to take all steps necessary to:  
 Instruct and ensure all bystanders to keep away from and upwind of spill/leak.  
 Avoid eye and skin contact;  
 Do not breath dust;  
 Ensure adequate ventilation;  
 Avoid contamination of waterways.  
 Refer to Section 8 for Personal Protection Equipment (PPE).

**Methods and materials for containment and cleaning up** Reposition any leaking containers so as to minimise leakage.  
 Dam and absorb spill with an absorbent material (eg sand or soil) or proprietary absorbent such as vermiculite.  
 Shovel the absorbed spill into drums.  
 Collect in a suitable, closed container to dispose and clean the spilled area with water.

## 7. Handling and Storage

**Precautions for safe handling** Safe work practices are recommended.  
 Avoid contact with eyes and skin.  
 When opening the container and preparing spray wear appropriate PPE (refer Section 8).  
 Do not spray under high wind conditions.  
**Hygiene measures:**  
 When using products, do not eat, drink or smoke.  
 Contaminated work clothing should not be allowed out of the workplace.  
 Wash hands thoroughly with soap and water after use and before eating, drinking, smoking/using tobacco, chewing gum, using the toilet or applying cosmetics.  
 After each day's use, wash gloves, face shield or goggles and contaminated clothing.  
 Avoid contact with eyes and skin.

**Conditions for safe storage, including any incompatibilities:**  
 Keep out of reach of children, unauthorised persons and animals.  
 Store in tightly sealed original containers in a dry secure place away from fertilizers, feed and food.  
 Store out of direct sunlight and extreme temperature.  
 Always read the label and any attached leaflet before use.

## 8. Exposure controls/personal protection (continued on page 3)

**Control parameters – exposure standards, biological monitoring** No exposure standard for this product has been set, however, an exposure standard has been set for paraquat (respirable sizes) at 0.1 mg/m<sup>3</sup>.

**Appropriate engineering controls** No special requirements.  
 Control process conditions to avoid contact. Use in a well-ventilated area only. Use local exhaust ventilation to keep exposure levels below the exposure limits above. Keep stored in original container in a cool, well ventilated area, keeping the lid closed at all-times whilst in storage.

**Personal protective equipment (PPE)** When opening the container, preparing the spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC chemical resistant and face shield or goggles.  
 When using the prepared spray cotton overalls buttoned to the neck and wrist and a washable hat and optional once chemical is prepared for use, elbow length PVC chemical resistant and face shield or goggles if protected from spray drift/contamination.  
**Face and Eye Protection:** Face shield or goggles.  
**Clothing:** Cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat.  
**Gloves:** Elbow-length chemical resistant PVC gloves.  
**Respiratory:** If airborne concentrations are likely to exceed the exposure standards above or if exposed to dust, an AS/NZS 1715/1716 approved respirator should be worn.

Recommended to use Australian and New Zealand Standard PPE:  
 Overalls AS 3765, Clothing for protection against Hazardous chemicals  
 Gloves: AS/NZS 2161, Industrial safety gloves and mittens (not electrical and medical gloves)  
 Goggles and face shield As/NZS 1337, Eye protectors for industrial applications.  
 Footwear AS/NZS 2210, Occupational protective footwear  
 Respirators AS NZS 1715 Selection, Use and Maintenance of Respiratory Protective Devices  
 AS/NZS 1716, Respiratory Protective Devices

**Requirements Concerning Training** Check State and/or Territory regulations that require people who use pesticides in their job or business to have adequate training in the application of the materials.

## 9. Physical and chemical properties (continued on page 3)

**Appearance, form, colour and odour** Clear dark blue liquid with obnoxious odour.

**pH (1% deion. Water);** 5.0 – 6.5

**Partition Coefficient Octanol/Water** Kow Log P is -4.5 (20°C)

**Boiling point** ~100°C

**Specific Gravity** 1.11

**Flammability** Noncombustible material

**Vapour pressure** <1 x 10<sup>-2</sup> mPa (25°C, paraquat dichloride)

**Behaviour in water** Soluble in water

**Solubility in water** Soluble in water

## 10. Stability and Reactivity

**Chemical stability** Paraquat is inactivated by adsorption onto clay.

**Conditions to avoid** Keep away from strong oxidising agents as product may react violently.

**Incompatible materials and possible hazardous reactions** Paraquat is highly corrosive to most metals, e.g. aluminum, zinc and iron.

**Hazardous decomposition products** Hazardous polymerization is not possible.

## 11. Toxicological information (continued on page 4)

**Inhalation** Highly toxic if inhaled.  
 Nose bleeding and soreness of the throat may result from spray mist or dust trapped on the nasal mucosa.  
 Irritating to the respiratory system. Pulmonary oedema may occur up to 48 hours after exposure and could

	<p>prove fatal.</p> <p>If the concentrate is allowed to dry out, solid paraquat dust can be created. Paraquat dust is highly toxic (TLV 0.1mg/m<sup>3</sup>) and should not be handled without full respiratory protection.</p> <p>This product contains a stenching agent to give an offensive smell. This has been done to reduce the likelihood of accidental ingestion. 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.</p> <p>Product is not a skin sensitiser.</p>
<b>Ingestion</b>	<p>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. There is no data available for health effects associated with long term ingestion.</p>
<b>Skin</b>	<p>Contact with skin will result in moderate irritation. Can cause 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. Normal growth follows without delay. Intact skin is a very effective barrier to paraquat. Damaged skin removes the barrier and paraquat may be absorbed with effects as outlined above under ingestion.</p>
<b>Eye</b>	<p>Eye irritation may be delayed. May lead to ulceration of corneal and conjunctival epithelium giving rise to secondary infection. Although healing may be slow, the injury is superficial and with proper medical care will be complete, even in severe cases.</p>
<b>Chronic Effects</b>	<p>Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.</p>
<b>Reproductive</b>	<p>Data indicates no reproductive effects.</p>
<b>Toxicity</b>	<p>TREATMENT OF PARAQUAT POISONING MUST COMMENCE AS RAPIDLY AS POSSIBLE.</p> <p>Rapid treatment is essential. The immediate effects of poisoning depend on the dose of paraquat absorbed into the blood. Mild poisoning occurs at &lt;20 mg paraquat ion/kg body weight and the effects are vomiting and diarrhea.</p> <p>Moderate to severe poisoning occurs at 20-30 mg paraquat ion/kg body weight and the effects are vomiting, abdominal discomfort, soreness and inflammation of the mouth, throat and oesophagus, difficulty in swallowing and, later, diarrhea. 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 &gt;30 mg paraquat ion/kg body weight and the effects are nausea and vomiting, and can cause death by multi-organ failure and circulatory collapse within 48 hours.</p> <p>Data indicates no carcinogenic effects.</p>
<b>Carcinogenicity</b>	
<b>Acute Toxicity - Oral</b>	<p>LD50 (rat) 129 - 157 mg/kg for paraquat dichloride. LD50 (guinea pig) 30 - 58 mg/kg</p>
<b>Acute Toxicity - Dermal</b>	<p>LD50 (rat) 911 mg/kg for paraquat dichloride. D50 (rabbit) 240 mg/kg for paraquat ion</p> <p>May cause temporary damage to nails and a delay in the healing of cuts and wounds.</p>
<b>Acute Toxicity - Inhalation</b>	<p>LC50 (rat) (4hr) 0.5-1.5 µg/l for paraquat dichloride</p>
<b>Eye Irritation</b>	<p>The product is an eye irritant.</p>
<b>Skin Irritation</b>	<p>The product is a skin irritant.</p>
<b>Skin Sensitisation</b>	
<b>Data limitations</b>	<p>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 0.45mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (1-year dog study; based on pulmonary lesions at the next highest dose of 0.9 mg/kg bw/d (males), and above) (Ref: Comm. Dept. of Health and Ageing Office of Chemical Safety, 'ADI List', 30 June 2014).</p>

## 12. Ecological information

<b>Known Harmful Effects on the Environment</b>	<p>Paraquat is rapidly absorbed and inactivated by contact with soil. There is evidence of photodegradation in air.</p> <p>The product is a marine pollutant for sea transport.</p>
<b>Environmental Protection</b>	<p>Keep domestic pets and poultry away from treated areas.</p>
<b>Acute Toxicity - Fish</b>	<p>This formulation should not be applied on or near water which is used for livestock watering.</p>
<b>Acute Toxicity - Daphnia</b>	<p>Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.</p>
<b>Acute Toxicity - Algae</b>	<p>Spray drift should be avoided, read the label for more information.</p>
<b>Acute Toxicity - Other Organisms</b>	<p>This formulation should not be applied on or near water which is used for irrigation purposes.</p> <p>LC50 (96hr) for rainbow trout is 15 mg/l for paraquat dichloride EC50 (48hr) for daphnia is 1.2 mg/l for paraquat dichloride.</p> <p>ECr50 (72hr) for algae is 0.32 mg/l.</p>
	<p>The following data is for the active ingredient, paraquat dichloride.</p> <p>LD50 for mallard duck is 199 mg/kg LD50 for bobwhite quail is 175 mg/kg</p> <p>Bees: Not toxic to bees. LD50 36 µg/bee.</p>

## 13. Disposal considerations (continued on page 5)

<b>Disposal of product</b>	<p>On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).</p>
<b>Disposal of Container</b>	<p>Do not use this container for any other purpose. Triple rinse containers, add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMUSTER symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, puncture or shred and bury containers in local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.</p>

## 14. Transport information

**General Transport Information** It is considered good practice not to transport agricultural chemical products with food, food related materials and animal feed products.

**Land** Considered **DANGEROUS** for road and rail transport by the Australian Code for the Transport of Dangerous Goods Road and Rail (August 2014 edition)

3016 BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC

Hazchem Code: 2X  
Special Provisions: 61, 223, 274  
Limited Quantities: ADG 7 Specified a Limited Quantity value of 5L for this class of product  
Dangerous Goods Class: Class 6.1: Toxic Substances  
Packaging Group: III  
Packaging Method: P001, IBC03, LP01

**Sea and Air** Considered **DANGEROUS** for transport by sea and air in accordance with the IMDG Code 37-14

### Substance: BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC

(1) UN No: <b>3016</b>	(2) PSN: <b>BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC</b>	
(3) Class: <b>6.1</b>	(4) Subsidiary Risks: -	(5) Packing Group: <b>III</b>
(6) Special Provisions: <b>61 223 274</b>	(7a) <b>Limited Quantities: 5 L</b>	(7b) <b>Excepted Quantities: E1</b>
Flashpoint:	(15) Emergency Schedule: <b>F-A, S-A</b>	
Instructions		Provisions
Packing	(8) <b>P001 LP01</b>	(9) -
IBCs	(10) <b>IBC03</b>	(11) -
Tanks	(13) <b>T7</b>	(14) <b>TP2 TP28</b>
(16a) Stowage and Handling		(16b) Segregation

### Category A, SW2

(17) Properties and Observations

**Liquid pesticides which present a very wide range of toxic hazard. Miscibility with water depends upon the composition. Toxic if swallowed, by skin contact or by inhalation.**

Labels/Marks/Signs:

For further information on the use of labels, marks and signs see [part 5](#) of the IMDG Code.



## 15. Regulatory information

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

## 16. Other information

Date of Review This Safety Data Sheet (SDS) was completed 30 August 2015 and replaces the Material Safety Data Sheet.

### Acronyms:

AVPMA: Australian Pesticides and Veterinary Medicines Authority.  
GHS: Globally Harmonised system of Classification and Labelling of chemicals  
HSIS: Hazardous Substances Information System  
NOHSC: National Occupational Health and Safety Commission  
CAS No.: unique numerical identifier assigned by Chemical Abstracts Service (division of the American Chemical Society)  
STEL: Exposure standard - short term exposure limit.  
AS/NZS: Australian Standards and New Zealand Standards for Personal protective equipment  
ADI: Acceptable Daily Intakes For Agricultural And Veterinary Chemicals  
ADG: Australian Dangerous Goods  
IMDG: International Maritime Code of Dangerous Goods  
IATA: International Air Transport Association

End of SDS

### DISCLAIMER:

This SAFETY DATA SHEET has been developed according to the Work Health and Safety Regulations (WHS Regulations) Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals December 2011. The data, information and recommendations herein ("information") are represented in good faith and believed to be correct as of the date hereof. The purpose of this SAFETY DATA SHEET is to describe product in terms of their safety requirements. Grow Choice Pty Ltd makes no representation of merchantability, fitness for a particular purpose of application, or of any other nature with respect to the information or the product to which the information refers ("the product"). The information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purpose prior to the use of the product. The physical data shown herein are typical values based on the material tested. These values should not be construed as a guaranteed analysis of any specific lot or as guaranteed specification for the product or specific lots thereof.

Due care should be taken to make sure that the use or disposal of this product and/or its packaging is in compliance with Relevant Federal, State and Local Government regulations.