

1: Identification of the Substance and Supplier

Product Name	PQ200
Recommended Use	Herbicide
Company Details	Orion AgriScience Ltd Unit 1, 15 Sir Gil Simpson Drive, Harewood, Christchurch, 8053 PO Box 39 071, Harewood, Christchurch, 8545
Web Address	www.orionagriscience.co.nz
Email Address	orders@orionagriscience.co.nz
Telephone Number	(03) 928 2386 (office hours), 0800 674 6627 (free phone)
Emergency Telephone	0800 CHEMCALL (0800 243 622) (24 hours)
National Poison Centre	0800 POISON (0800 764 766) (24 hours)
Date of Issue/Revision	July 2015

2: Hazards Identification

Hazard Pictograms	   
Priority Identifiers:	Toxic, Ecotoxic, Keep Out of Reach of Children
HSNO Classes:	Secondary Identifiers:
6.1A	May be fatal if swallowed, inhaled or absorbed through the skin
6.3A	May cause skin irritation
6.4A	May cause eye irritation
6.9A	May cause organ damage from repeated ingestion at high doses
9.1A	Very toxic to aquatic organisms
9.3B	Toxic to terrestrial vertebrates
9.4B	Toxic to terrestrial invertebrates

3: Composition/ Information on Ingredients

Ingredient	CAS No	Content (% w/v)
Paraquat dichloride (active ingredient)	1910-42-5	20
Stenching agent	Proprietary	<1
Emetic	Proprietary	<1
Other ingredients, water, surfactants, dye, etc	Proprietary	Remainder

4: First Aid Measures

Skin Contact	In case of contact, immediately wash affected area with soap and water. Do not scrub. Wash contaminated clothing before reuse. Seek medical advice if irritation persists.
Eye Contact	Hold eyes open and rinse with water for at least 15 minutes. Remove contact lenses if easy to do so. Seek medical advice immediately.
Ingestion	Rapid treatment is essential. Rush to hospital after alerting by telephone. If available, give an adsorbent such as
Inhalation	Immediately move to fresh air and rest. Maintain half upright position if breathing is difficult. Seek medical advice immediately.
Workplace Facilities	Hand wash facility. Eye wash facility.
Advice to Doctor	Rapid treatment is essential. Refer to an authoritative text on treatment, e.g., Recognition and Management of Pesticide Poisonings, US EPA, Chapter 16 Paraquat and Diquat http://www2.epa.gov/pesticide-worker-safety/pesticide-poisoning-handbook-complete-document Eye splashes should be referred to a specialist after initial treatment.
National Poison Centre	0800 POISON (0800 764 766) (24 hours)

5: Fire-Fighting Measures

Fire/Explosion Hazard	Non-Flammable.
HAZCHEM Code	2X
ERP Guide No	34
Extinguishing Media	Water spray, foam, dry chemical or CO2. Avoid water jet.
Fire Fighting Instructions	During a fire, toxic fumes may be emitted. Wear self-contained breathing apparatus. Contain runoff.

6: Accidental Release Measures

Caution: Floors may be slippery if wet. When dealing with spills wear personal protective clothing and equipment as described in section 8. Prevent further spillage or leakage. Keep bystanders away. Absorb spillage with inert material such as spill kit, sand or cat litter. Collect and place in a sealable container for disposal. Wash down affected area with water and detergent. Absorb and collect washings for disposal. Dispose of safely to a suitable landfill.

7: Storage, Handling and Use

Storage	Keep out of reach of children. Store in the original, tightly closed container, in a secure area away from feed or foodstuffs.
Handling and Use	Keep out of reach of children. Avoid contact with eyes and skin. Avoid inhalation of spray mist. When mixing or applying, wear protective clothing as described in section 8. Wash splashes of concentrate from skin immediately. Do not scrub. Do not eat, drink or smoke while using. Wash hands and face after use. Wash protective clothing after use. Never put in a drinks container.
Approved Handler	Required.
Tracking	Required.
Record Keeping	Record of use must be kept if applied where members of the public may be lawfully present, or where it is likely to enter air or water and leave that place.
REI	24 hours
Site Requirements under the HSNO Act 1996 and HSNO Regulations:	<ul style="list-style-type: none"> • A location test certificate is not required • A hazardous atmosphere zone is not required • Fire extinguishers are not required • Signage is required for 50 litres or more • Emergency information is required for any quantity • An emergency plan is required for more than 100 litres • Secondary containment is required for more than 100 litres • Separation/Segregation from incompatible substances is not applicable
Additional Requirements	All aspects of storage, handling, use, disposal and record keeping must be in accordance with NZS 8409:2004 'Management of Agrichemicals', and relevant local and regional council plans.

8: Exposure Control / Personal Protection

Tolerable Exposure Limit	None established.
Workplace Exposure Standards	<p>Product – None established (Use lowest practicable level).</p> <p>Active ingredient - Paraquat 0.1 mg/m³ (8hr TWA)</p> <p>Excipients – None established (Use lowest practicable level).</p>
Engineering Controls	Not Limited given nature of use.
Personal Protection:	
Eye	Full face respirator.
Skin	Chemical resistant coveralls with hood tightly fitting at head, wrists and ankles (e.g., Tychem F suit), chemical resistant boots and chemical resistant gloves (e.g. PVC, butyl, nitrile, neoprene, rubber, barrier multilayer).
Respiratory	Respirator (organic vapour and particulate matter) when mixing or applying.

9: Physical and Chemical Properties

Form	Brown/green Liquid
Odour	Characteristic pyridine
Boiling Point	100 °C (approx)
Flash Point	Will not flash
Auto ignition Temperature	Not applicable
Explosive Limits	Not applicable
Density	1.08 g/mL (approx)
Vapour Pressure	Not volatile
Vapour Density	Not applicable
Solubility in Water	Soluble
pH	2.0 – 6.0
Oxidising Properties	Not an oxidizer
Corrosive Properties	Can be corrosive to metals

10: Stability and Reactivity

Stability	Stable under normal conditions.
Incompatibility	Avoid mixing with strong acids, alkalis, and oxidizing agents such as chlorine compounds, ammonium nitrate, etc. Can cause corrosion when in contact with metals such as steel or aluminum.
Decomposition	Decomposition will not occur under normal conditions.
Dangerous Reactions	Products arising from combustion or thermal decomposition may be toxic, corrosive or flammable.

11: Toxicological Information

This section describes effects which could occur if this material is not handled in accordance with this data sheet.

Swallowed	Burning pain in mouth, throat, chest and upper abdomen. Inflammation or ulceration of the mouth, nose, throat and oesophagus. Vomiting, diarrhoea, giddiness, headache, fever.
Eye	Irritation. Splashes of concentrate may cause severe conjunctivitis and corneal damage.
Skin	Irritation. Prolonged contact can cause redness, blistering, abrasion, ulceration, cracking of the skin and ridging of fingernails. Can be absorbed via the skin, especially through cuts, blisters, ulcers, etc.
Inhalation	Cough, sore throat, laboured breathing, headache, nosebleeds.
Acute Toxicity (Active Ingredient)	<ul style="list-style-type: none"> Acute Oral LD50 (Guinea Pig) 30 mg/kg Acute Dermal LD50 (Rat) 911 mg/kg Inhalation LC50 (4 hr) (Rat) 1 µg/l
Sensitisation Effects	Potential contact sensitiser in susceptible individuals
Mutagenic Effects	None
Carcinogenic Effects	None
Reproductive Effects	None
Teratogenic (Birth) Effects	None
Systemic Effects	Paraquat has life threatening effects on the lungs, gastrointestinal tract, kidney, liver, heart and other organs.

12: Ecotoxicity Information

This section describes effects which could occur if this material is not handled in accordance with this data sheet.

The following information is presented in respect of the active ingredient:

Ecotoxic Effects	<ul style="list-style-type: none"> Acute Oral LD50 (Bobwhite quail) 175 mg/kg LC50 (96 hr) (Rainbow trout) 26 mg/l LC50 (48 hr) (Daphnia) 6.1 mg/l
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Environmental Fate	<ul style="list-style-type: none">Algae EC50 (96 hr) 0.10 mg/lAcute Oral LD50 (Bee) 36 µg/bee (moderately toxic)
Partition Co-Efficient (Kow)	Biodegradable. DT50 (soil) < 1 week (unadsorbed to soil particles)
Environmental Exposure Limit:	LogP = -4.5 (low)
	None established.

13: Disposal Considerations

Product	Dispose of product by using it in accordance with the label. Waste product should be disposed of to a suitable landfill. For disposal of large quantities contact Orion AgriScience Ltd.
Container	Dispose of to a suitable landfill or agricultural recycling scheme. Do not burn. Do not use packaging for any other purpose.

14: Transport Information

Dangerous Goods	
UN Number	3016
Proper Shipping Name	BIPYRIDYLIUM PESTICIDE, LIQUID, TOXIC (PARAQUAT DICHLORIDE 28%)
Class	6
Subsidiary Class	None
Packing Group	III
Additional Information	MARINE POLLUTANT
MTQ (Non-Commercial)	250 litres
Passenger Service Vehicle:	Must not be carried on passenger service vehicle.

15: Regulatory Information

HSNO Approval No	HSR000828
ACVM Registration No	P4852

16: Other Information

Glossary	
Approved Handler	For some hazardous substances, persons storing, handling and using must be trained and certified
DT50	Time (days) for 50% reduction in concentration
EC50	Concentration required to produce an effect in 50% of organisms
Environmental Exposure Limit	Maximum concentration limit of a substance in an environmental medium, e.g., water, soil.
ERP Guide	Dangerous Goods – Initial Emergency Response Guide SNZ HB 76:2008
HAZCHEM Code	Emergency action code for emergency services
HSNO	Hazardous Substances and New Organisms
LC50	Concentration that will kill 50% of organisms
LD50	Dose that will kill 50% or organisms
MTQ	Maximum Transport Quantity. The maximum amount of dangerous goods that can be transported by road by the user
Partition Co-Efficient Kow	Ratio of concentration between octanol and water. Values are given as the log value. A high value indicates a substance may bioaccumulate
Record Keeping	Includes a spray diary
REI	Restricted Entry Interval – The length of time after application before entry into the treated area is permitted without the use of protective equipment. For indoor environments, this time period commences

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once ventilation after treatment begins.

Safety Note

A brief document providing hazardous substance information for transport, storage and emergency management purposes

STEL

Short term exposure level

Tolerable Exposure Limit

Maximum concentration limit of a substance above which persons must not be exposed

Tracking

For some hazardous substances, a record must be kept of the transport, storage, sale and use of the product

TWA

Time weighted average

Workplace Exposure Standard

An occupational health standard limiting concentrations of specified substances to which persons are exposed

Wide Dispersive Use

A method of application involving equipment such as boom sprayers, mist blowers, vine sprayers, row sprayers, etc., as well as aerial application. Hand gunning within 30m of a property boundary is also classed as wide dispersive use. Knapsack sprayers are not classed as wide dispersive use

Please Note

Users must ensure that the most up to date version of this safety data sheet is used.

This Safety Data Sheet summarises information on this product, and how to safely handle and use the product. Each user should familiarise themselves with the product label, Safety Note and Safety Data Sheet, and consider the information in the context of how the product will be handled and used, including in conjunction with other products. Orion AgriScience Ltd assumes no responsibility for the accuracy, completeness or suitability of this information. The user is responsible for determining the suitability and accuracy of this information for their particular purposes. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. Always read the product label before use.