

## SECTION 1 – IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

<b>Product Name</b>	<b>Speedy 250 Herbicide</b>
<b>Company Name</b>	Kenso Corporation (M) Sdn Bhd
<b>Address</b>	2 Bond Crescent, Forrest Hill, Auckland 0620 New Zealand
<b>Telephone</b>	0800 536 766
<b>Emergency Telephone</b>	<b>0800 CHEMCALL (0800 243 622) (24 hours)</b>
<b>National Poisons Centre Use</b>	<b>0800 POISON (0800 764 766) (24 hours)</b> For weed control in Market Gardens, Nurseries, Orchards, and Vineyards.

## SECTION 2 – HAZARDS IDENTIFICATION

<b>Hazard Pictograms</b>	
<b>Hazard Classification</b>	<b>6.1A, 6.3A, 6.4A, 6.5B, 6.9A, 9.1A, 9.3A, 9.4C</b>
<b>Priority Identifier</b>	<b>DANGER</b>
<b>Secondary Identifier</b>	<b>KEEP OUT OF REACH OF CHILDREN</b> 6.1A = May be fatal if swallowed, inhaled or absorbed through the skin. 6.3A = May cause skin irritation 6.4A = Irritating to eyes 6.5B = May cause sensitisation by skin contact 6.9A = May cause eye damage from repeated oral exposure at high doses. 9.1A = Very toxic to aquatic organisms. 9.3A = Very toxic to terrestrial vertebrates. 9.4C = Harmful to terrestrial invertebrates.

## SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

<b>Ingredients</b>	<b>CAS No</b>	<b>Proportion</b>
Paraquat (present as dichloride)	1910-42-5	13.5% w/v
Diquat (present as dibromide)	85-00-7	11.5% w/v
Other inert ingredients	secret	To 100% w/v

## SECTION 4 – FIRST AID MEASURES

<b>Ingestion</b>	If poisoning occurs get to a doctor or hospital quickly, warning by telephone of the estimated arrival time so that treatment is not delayed. Do not induce vomiting. DO NOT delay the start of treatment.
<b>Eye</b>	Immediately irrigate with copious quantities of water for at least 20 minutes. Eyelids to be held open. Urgently seek medical assistance. Transport to hospital or medical centre.
<b>Skin</b>	Immediately take off all contaminated clothing. Wash skin immediately with water followed by soap and water. If swelling, redness, blistering or irritation occurs seek medical attention. Contaminated clothing should be disposed of or thoroughly laundered before reuse.
<b>Inhalation</b>	Remove victim from exposure. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Obtain immediate medical attention.
<b>Advice to Doctor</b>	Give up to 1 litre of 15% aqueous suspension of Fuller's Earth orally or via gastric tube, together with a suitable purgative (200mL of a 20% aqueous solution of mannitol). If ingested, wash out the stomach and test urine for the presence of Diquat. If there is severe mouth ulceration give nothing by mouth until patient's condition has improved. Give intravenous fluids only. Eye contact: severe damage may be caused by apparently trivial contact and healing may be delayed. Medical supervision should continue until complete healing has occurred.

## SECTION 5 – FIRE FIGHTING MEASURES

<b>Fire/Explosion Hazard</b>	Non-combustible
<b>HAZCHEM Code</b>	2X
<b>IER Guide No</b>	34
<b>Extinguishing Media</b>	Preferred extinguishing media are carbon dioxide, dry chemical, foam, water fog.
<b>Fire Fighting Instructions</b>	Evacuate personnel to a safe area. Always wear positive-pressure self-contained breathing apparatus and full protective clothing. Do not allow water from fire-fighting to enter water supplies or drainage systems.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	For appropriate personal protective equipment (PPE), refer to section 8.
<b>Spillage</b>	
<b>Small Spill</b>	For cleanup of a spill from a single shipping pack soak up with clay, sand or other non-combustible absorbent material and place into containers for disposal. If applicable, wash the area with detergent and water.
<b>Large Spill</b>	Prevent spillage from entering drains or water courses. Wear full chemical resistant protective clothing including coveralls, boots, goggles and gloves. Stop leak if safe to do so, and contain spill. Absorb into clay, sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dyke to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recovery product into labelled containers for recycling or salvage, and dispose of promptly. After spills, wash area with a detergent based solution preventing runoff from entering drains. If a significant quantity of material enters drains, immediately advise regional council and emergency services. 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.
<b>Environmental Precautions</b>	Both Paraquat and Diquat concentrate, solutions and washings must be prevented from entering surface water drains or waterways.

## SECTION 7 – HANDLING AND STORAGE

<b>Storage</b>	Keep out of reach of children. Store in original container, tightly closed, away from human and animal foodstuffs, medicines and remedies, seeds and fertilisers. Segregate from incompatible substances (see section 10 below). Store in a cool, dry, well ventilated place and protect from sunlight.
<b>Handling</b>	Avoid contact with skin and eyes and inhalation of concentrate or spray mist. When using, do not eat, drink or smoke. Wash face and hands before eating, drinking or smoking.
<b>Certified Handler</b>	Required. Product must be under the control of a Certified Handler over all lifecycle stages.
<b>Tracking (Record Keeping)</b>	Required over all lifecycle stages.
<b>Additional Requirements</b>	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.

## SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

<b>Engineering Controls</b>	No special requirements. Product is used outdoors. Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. If airborne mists or vapours are generated, use respiratory protection and local exhaust ventilation controls. Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit. Follow precaution statements on the label and the use and safety directions in Code of Practice for the Management of agrichemical NZS8409.
<b>Personal Protection</b>	Use only protective equipment bearing the mark of the Standards Association

of Australia/ New Zealand. In case of any potential or actual exposure, wear full respiratory protection (at least to organic vapour standard) eye and/or face shield protection, chemical resistant coveralls, footwear and gloves.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form	Soluble liquid
Colour	Dark green/blue colour
Odour	Pyridine base
pH	5 – 6.5
Specific gravity	1.16
Flash point (°C)	NA
Flammability Limits	Non combustible
Miscibility	Soluble
Oxidising properties	Not oxidising
Explosive properties	Not explosive
Corrosiveness	Corrosive

## SECTION 10 – STABILITY AND REACTIVITY

Stability	Corrosive in contact with metals
Incompatibility	Strong oxidising agents. Diquat is highly corrosive to most metals, e.g., aluminium, zinc and iron. Diquat is inactivated by absorption onto clays.
Decomposition	During a fire, smoke may contain the original material in addition to combustion products of varying composition that may be toxic and/ or irritating. Take appropriate protective measures. It may emit oxides of nitrogen and possibly toxic fumes of hydrogen chloride and hydrogen bromide.
Dangerous Reactions	Not known.

## SECTION 11 – TOXICOLOGICAL INFORMATION

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

Acute Toxicity (on active ingredient)	<p>Paraquat:</p> <p>Acute Oral LD<sub>50</sub> (rats) : 283 mg/kg                      Acute Dermal LD<sub>50</sub> (rats) : &gt;2000 mg/kg                      Acute inhalation LC<sub>50</sub> (4h): 0.5-1.5 ug/L air</p> <p>Diquat:</p> <p>Acute Oral LD<sub>50</sub> (rats) : 1389 mg/kg                      Acute Dermal LD<sub>50</sub> (rats) : &gt;2000 mg/kg</p>
Skin Irritation	Irritant
Eye Irritation	Irritant
Sensitisation Effects	Sensitizer
Chronic (on active ingredient)	<p>Studies in animals have shown that repeated doses of paraquat do not produce carcinogenic nor teratogenic effects or adverse reproductive effects. The dietary no effect level in the rat was 25 ppm of paraquat over 2 years. Ingestion studies in animals have shown that repeated doses of diquat produce cataracts in test animals (dog, rat). These effects have not been seen in occupationally exposed humans. The ADI (Acceptable Daily Intake) for humans (paraquat ion) is 0.004 mg/kg/day. The ADI (Acceptable Daily Intake) for humans (diquat ion) is 0.002 mg/kg/day.</p>

## SECTION 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 (on active ingredient)	<p><b>Toxicity to Birds:</b></p> <p>Paraquat: LD<sub>50</sub> (8 d) = 262-380 mg/kg (hens)                      Diquat: LD<sub>50</sub> (8 d) = 155 mg/kg (mallard duck)                      LD<sub>50</sub> (8 d) = 292 mg/kg (partridges)</p>
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<b>Environmental Fate</b>	<b>Acute toxicity to fish:</b>
	Paraquat: LC <sub>50</sub> (96 h) = 55 mg/L (Rainbow trout) LC <sub>50</sub> (96 h) = 2.5-13 mg/L (brown trout)
	Diquat: LC <sub>50</sub> (96 h) = 39 mg/L (Rainbow trout) LC <sub>50</sub> (96 h) = 125 mg/L (Mirror carp)
	<b>Growth inhibition, Algae:</b>
	Paraquat: ErC <sub>50</sub> (72 h) = 0.34 mg/L (green algae)
	Diquat: EC <sub>50</sub> (96 h) = 21 µg/L (green algae)
	<b>Toxicity to aquatic Invertebrates:</b>
	Paraquat: LC <sub>50</sub> (48h) = 6.1 mg/L (Daphnia magna (water flea))
	Diquat: LC <sub>50</sub> (48h) = 2.2 µ/L (Daphnia magna (water flea))
	<b>Toxicity to soil dwelling organisms:</b>
Paraquat: LC <sub>50</sub> (14 days) = >1380 mg/kg (earthworms)	
Diquat: LC <sub>50</sub> (14 days) = 243 mg/kg (earthworms)	
<b>Toxicity to Bees:</b>	
Paraquat: LD <sub>50</sub> (72 h, oral) = 36 µg/bee LD <sub>50</sub> (72 h, contact) = 150 µg/bee	
Diquat: LD <sub>50</sub> (120 h, oral) = 22 µg/bee	
The information presented here is for the active ingredient, diquat dibromide. Distribution and Persistence: Diquat is rapidly absorbed and deactivated by soil. There is no mobility in soil or leaching into ground water; K <sub>d</sub> >10,000. K <sub>ow</sub> logP = -4.6 (20 °C). There is rapid photodegradation in water and on plants. Diquat is rapidly degraded by soil organisms (DT50 of unadsorbed paraquat <1 week). Strong binding in soil increases persistence.	

## SECTION 13 – DISPOSAL CONSIDERATIONS

<b>Product</b>	Dispose of this product only by using according to the label, or at an approved landfill or other approved facility.
<b>Container</b>	Ensure the container is empty. Triple rinse empty container and add rinsate to the spray tank. Recycle empty container through Agrecovery (0800 247 326, www.agrecovery.co.nz). Otherwise crush and bury in a suitable landfill. DO NOT reuse this container for any other purpose.

## SECTION 14 – TRANSPORT INFORMATION

<b>Dangerous Goods</b>	
<b>UN Number</b>	3016
<b>Proper Shipping Name</b>	BIPYRIDILIUM LIQUID, N.O.S. (contains PARAQUAT 13.5% AND DIQUAT 11.5%)
<b>Class</b>	6
<b>Subsidiary Class</b>	None
<b>Packaging Group</b>	III
<b>Additional Information</b>	MARINE POLLUTANT
<b>MTQ (Non-Commercial)</b>	250 L

## SECTION 15 – REGULATORY INFORMATION

<b>HSNO Approval No</b>	HSR000447
<b>ACVM Approval No</b>	P8747

## SECTION 16 – OTHER INFORMATION

<b>This SDS contains only safety-related information. For other data see product literature.</b>	
<b>Contact Points</b>	
Police, Ambulance and Fire Service	111
National Poisons Information Centre	0800 POISON (0800 764 766)
Hazardous Substances Emergency	0800 Chemcall (0800 243 622)