SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

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

SECTION 2 – HAZARDS IDENTIFICATION

Hazard Pictograms	
Priority Identifier	**DANGER**
Hazard Statement	H300: Fatal if swallowed. H310: Fatal in contact with skin. H315: Causes skin irritation. H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. H330: Fatal if inhaled. H372: Causes damage to organs through prolonged or repeated exposure. H400: Very toxic to aquatic life. H410: Very toxic to aquatic life with long lasting effects.
Prevention	P102: Keep out of reach of children. P103: Read label before use. P260: Do not breathe dust/fume/gas/mist/vapours/spray. P262: Do not get in eyes, on skin, or on clothing. P264: Wash contacted area 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. P273: Avoid release to the environment. P280: Wear protective gloves/protective clothing/eye protection/ face protection. P284: Wear respiratory protection.
Response	P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P302 + P350: IF ON SKIN: Gently wash with plenty of soap and water. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position 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. P310: Immediately call a POISON CENTER or doctor/physician. P314: Get medical advice/attention if you feel unwell. P320: Specific treatment is urgent (see FIRST AID on this label). P330: Rinse mouth. P333 + P313: If skin irritation or rash occurs: Get medical advice/attention. P337 + P313: If eye irritation persists: Get medical advice/attention. P361: Remove/Take off immediately all contaminated clothing. P363: Wash contaminated clothing before reuse. P391: Collect spillage
Storage	P403 + P233: Store in a well-ventilated place. Keep container tightly closed. P405: Store locked up.
Disposal	P501: Dispose of contents/container as specified on the registered label.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No	Proportion
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

Ingestion	If ingestion (of any quantity) occurs rush the patient to the Accident and Emergency Department of the nearest hospital after alerting them by telephone of the estimated arrival time so that treatment is not delayed. Do not induce vomiting. DO NOT delay the start of treatment. Take off all contaminated clothing immediately. Begin artificial respiration if the patient is not breathing. Use the mouth to nose rather than mouth to mouth technique. For advice, contact the National Poisons Centre on 0800 POISON (0800 764 766) or an emergency trauma doctor immediately.
Eye	Immediately irrigate with copious quantities of water for at least 20 minutes. Eyelids to be held open. Urgently seek medical assistance. Arrange transport to nearest hospital or medical emergency centre.
Skin	Immediately take off all contaminated clothing. Thoroughly wash skin immediately with copious amounts of water followed by soap and water. If swelling, redness, blistering or irritation occurs seek immediate medical attention. Contaminated clothing should be disposed of or thoroughly laundered before reuse.
Inhalation	Remove victim from exposure. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Begin artificial respiration if the patient is not breathing. Use the mouth to nose rather than mouth to mouth technique. Obtain immediate medication attention.
Advice to Doctor	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

Fire/Explosion Hazard	Non-combustible
HAZCHEM Code	2X
IER Guide No	34
Extinguishing Media	Preferred extinguishing media are carbon dioxide, dry chemical, foam, water fog.
Fire Fighting Instructions	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

Personal Precautions	For appropriate personal protective equipment (PPE), refer to section 8.
Spillage	Always wear full personal protective equipment (PPE) before attempting spill containment and clean-up. Isolate the area (keep people away), get assistance and stop leak if safe to do so, and contain spill. Absorb spilt material into clay, sand, vermiculite or other suitable absorbent material. Clay and Soil offers the added advantage of deactivating the active ingredient on contact. If the 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,sealable containers for recycling or salvage and dispose of promptly. After spills, wash

	area with a detergent based solution (avoid solvents) preventing runoff from entering drains. If a significant quantity of material enters drains, immediately advise regional council and emergency services. Ensure appropriate disposal of recovered contaminated material, washings etc. by consulting the local authority waste management department prior to disposal. Thoroughly launder or discard protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.
Environmental Precautions	To ensure the environmental hazards are mitigated, the EPA have imposed controls relating to buffer zones and spray droplet sizes (as defined in the APPLICATION RESTRICTIONS found on the Speedy 250 label).

SECTION 7 – HANDLING AND STORAGE

Storage	Keep out of reach of children. Always keep Speedy 250 stored in a locked, secure storage facility when not in use. Store in original container, tightly closed, in a cool, dry, well ventilated place and protect from sunlight Segregate from human and animal foodstuffs, medicines and remedies, seeds and fertilisers and other pesticides Segregate from incompatible hazardous substances – Classes 1, 3, 4 and 5.
Handling	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.
Handler Competence	Persons responsible for the storage, handling, mixing, applying or disposing of this product must be a Certified Handler, or trained, experienced or supervised in accordance with requirements for class 6 and 9 substances of the Health and Safety at Work (Hazardous Substances) Regulations 2017 part 4.5 and the Hazardous Substances (Hazardous Property Controls) Notice 2017 Part 4 Subpart C.
Tracking (Record Keeping)	Required over all lifecycle stages.
Additional Requirements	All aspects of storage, handling, use, disposal and record keeping must be in accordance with NZS 8409:2021 'Management of Agrichemicals', and relevant local and regional council plans.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls	Product is used outdoors. Avoid ANY direct contact with concentrate, dilutions, mists or vapours in all cases. Use full PPE where exposure to Speedy 250 is expected or possible. 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.
Personal Protection	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 minimum specification) 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 (ºC)	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)	Paraquat: Acute Oral LD_{50} (rats) : 283 mg/kg Acute Dermal LD_{50} (rats) : >2000 mg/kg Acute inhalation LC_{50} (4h): 0.5-1.5 ug/L air Diquat: Acute Oral LD_{50} (rats) : 1389 mg/kg Acute Dermal LD_{50} (rats) : >2000 mg/kg
Skin Irritation	Irritant
Eye Irritation	Irritant
Sensitisation Effects	Sensitizer
Chronic (on active ingredient)	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.

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)	**Toxicity to Birds:** Paraquat: LD_{50} (8 d) = 262-380 mg/kg (hens) Diquat: LD_{50} (8 d) = 155 mg/kg (mallard duck) LD_{50} (8 d) = 292 mg/kg (partridges) **Acute toxicity to fish:** Paraquat: LC_{50} (96 h) = 55 mg/L (Rainbow trout) LC_{50} (96 h) = 2.5-13 mg/L (brown trout) Diquat: LC_{50} (96 h) = 39 mg/L (Rainbow trout) LC_{50} (96 h) = 125 mg/L (Mirror carp) **Growth inhibition, Algae:** Paraquat: ErC_{50} (72 h)= 0.34 mg/L (green algae) Diquat: EC_{50} (96 h)= 21 µg/L (green algae) **Toxicity to aquatic Invertebrates:** Paraquat: LC_{50} (48h) = 6.1 mg/L (Daphnia magna (water flea)) Diquat: LC_{50} (48h) = 2.2 µ/L (Daphnia magna (water flea)) **Toxicity to soil dwelling organisms:** Paraquat: LC_{50} (14 days) = >1380 mg/kg (earthworms) Diquat: LC_{50} (14 days) = 243 mg/kg (earthworms) **Toxicity to Bees:**

Environmental Fate	Paraquat: LD_{50} (72 h, oral) = 36 µg/bee LD_{50} (72 h, contact) = 150 µg/bee Diquat: LD_{50} (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; Kd >10,000. Kow 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

Product	Dispose of Speedy 250 by using according to the label. Otherwise dispose of waste product at an approved hazardous substances receival facility or other local authority approved facility, or the Agrecovery chemical disposal service (0800 247 326). DO NOT contaminate ponds, waterways, stormwater systems, running drains/ditches with Speedy 250 or used containers. DO NOT dispose of waste or contaminated material into the sewer.
Container	Triple rinse empty containers and add rinsate to the spray tank. Apply as per the label or distribute over appropriate (safe areas) waste ground not exceeding maximum permissible per hectare rates. Recycle empty containers through the Agrecovery container recycling service (0800 247 326). Otherwise submit to an approved local authority refuse receival facility.

SECTION 14 – TRANSPORT INFORMATION

Dangerous Goods	
UN Number	3016
Proper Shipping Name	BIPYRIDILIUM LIQUID, N.O.S. (CONTAINS PARAQUAT, DIQUAT)
Class	6
Subsidiary Class	None
Packaging Group	III
Additional Information	MARINE POLLUTANT
MTQ (Non-Commercial)	250 L

SECTION 15 – REGULATORY INFORMATION

HSNO Approval No	HSR000447
ACVM Approval No	P008747

SECTION 16 – OTHER INFORMATION

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

Contact Points	
Police, Ambulance and Fire Service	111
National Poisons Information Centre	0800 POISON (0800 764 766)
Hazardous Substances Emergency	0800 Chemcall (0800 243 622)