

SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product Name: Kenso Agcare Para-Ken 334 Herbicide
Product Type: Group 22 Herbicide
Company Name: Kenso Corporation (M) Sdn Bhd
Address: Level 1, 98 Commercial Road, Teneriffe, 4005 QLD.
Telephone Number: (07) 3216 1188
Emergency Telephone Number: 000 (Police or Fire Brigade)
13 11 26 (Poisons Information Centre)
Use: Herbicide for the control of a wide range of grasses and broadleaf weeds.

SECTION 2 – HAZARDS IDENTIFICATION

Hazard Classification: Classified as Hazardous according to criteria of Safe Work Australia.
Classified as a Dangerous Good according to the ADG code.



Classification of the Hazardous Chemical: Acute toxicity (Oral) – Category 3
Acute toxicity (Dermal) – Category 3
Serious eye damage/eye irritation – Category 2/2A
Acute toxicity (Inhalation) – Category 1,2
Specific target organ toxicity, single exposure – Category 3
Specific target organ toxicity, repeated exposure – Category 1
Hazardous to the aquatic environment, long term – Chronic 1

GHS Signal Word: **DANGER**

Hazard Statement: H301: Toxic if swallowed.
H311: Toxic in contact with skin.
H319: Causes serious eye irritation.
H330: Fatal if inhaled.
H335: May cause respiratory irritation.
H372: Causes damage to organs through prolonged or repeated exposure.
H410: Very toxic to aquatic life with long lasting effects.

Prevention: P260: Do not breathe fumes, mists, vapours or spray.
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.
P273: Avoid release to the environment.
P280: Wear protective gloves, protective clothing and eye or face protection.
P284: Wear respiratory protection.

Response: P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 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.
 P320: Specific treatment is urgent (see FIRST AID on this label).
 P330: Rinse mouth.
 P337+P313: If eye irritation persists: Get medical advice/attention.
 P361+P364: Take off immediately all contaminated clothing and wash it 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 and containers as specified on the registered label.

SUSMP Classification: S7
ADG Classification: Class 6.1: Toxic substances.
UN Number: 3016, BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC

Emergency Overview

Physical Description & colour: Clear dark blue/green liquid.

Odour: Obnoxious pyridine odour.

Major Health Hazard: Toxic if swallowed, in contact with skin. Causes serious eye irritation. Fatal if inhaled. May cause respiratory irritation. Causes damage to organs through prolonged or repeated exposure.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredients | CAS number | Proportion |
|---|------------|------------|
| Paraquat (present as paraquat dichloride) | 1910-42-5 | 33.4% |
| Inert ingredients | secret | <20% |
| Water | secret | to 100% |

SECTION 4 – FIRST AID MEASURES

Inhalation: Move person to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or Poisons Information Centre immediately.

Skin contact: Wash off immediately with plenty of water. If irritation persists, call a physician. Contact of the concentrate with abraded skin or skin with cuts must be

- avoided. Seek medical advice immediately, but only after the exposed skin has been thoroughly washed. Wash contaminated clothing before re-use.
- Eye contact:** Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. Remove contact lenses. Seek medical advice immediately.
- Ingestion:** If poisoning occurs get to a doctor or hospital quickly, warning by telephone of the estimated arrival time so that 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. A 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.

Advice to Doctor:

RAPID TREATMENT IS ESSENTIAL. Refer to 'Paraquat Poisoning, a practical guide to diagnosis, first aid and hospital treatment' (prepared by Syngenta) is available at major hospitals or Poisons Information Centres.

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.

SECTION 5 – FIRE FIGHTING MEASURES

Fire/Explosion Hazard

Dangerous Decomposition or Combustion Products

Thermal Decomposition

Not combustible, however, following evaporation of aqueous component residual material may burn. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media

Extinguish fire with foam, dry powder, carbon dioxide, water fog or fine water spray.

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.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spills and Disposal

Ensure suitable personal protection (including respiratory protection) during removal of spillage. Contain spill and absorb with sand or other absorbent material. Do not allow to enter drains, sewers and watercourses. Collect in sealable open top container for disposal. On-site disposal is not acceptable. 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. Ensure legality of disposal by consulting regulations prior to disposal.

SECTION 7 – HANDLING AND STORAGE

Handling

Very dangerous, particularly the concentrate. Product is poisonous if swallowed. Will irritate the nose, throat and skin. Attacks the eyes, protect the eyes while using. Avoid contact with eyes, skin and clothing. When opening the container and preparing product for use wear elbow-length PVC gloves, face shield or goggles.

If product on skin, immediately wash area with soap and water. If clothing becomes contaminated with product remove clothing immediately. If product in eyes, wash it out immediately with water. Avoid contact with spray mist. DO NOT inhale spray mist. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

SPRAY APPLICATION

- Do not work in spray mist.
- Do not continue to use if skin irritation or nose bleed occurs. This may be caused by exposure to spray mist as the result of incorrect use of equipment or adverse climatic conditions. Stop and review handling and spraying techniques before further spraying. If symptoms persist seek medical advice.
- When there is a risk of exposure to spray mist wear waterproof footwear and waterproof protective clothing, impervious gauntlet length gloves (rubber or PVC), goggles and a face mask and respirator covering nose and mouth and capable of filtering spray droplets. A high efficiency type particulate respirator is recommended, but in any event use a respirator which complies with the requirements of AS1716 (Standards Association of Australia). Further advice on safety equipment should be obtained from a safety equipment manufacturer.
- Avoid contacting vegetation wet with spray, but if necessary to do so wear waterproof footwear and waterproof protective clothing and gloves.

Storage

Store in the closed, original container in a dry, cool, well-ventilated locked room or place away from children, food, feedstuffs, seed and fertilisers. Do not store for prolonged periods in direct sunlight.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:

There are no assigned values for this specific product, however, exposure standards for the active ingredient are as follows:

| | TWA | | STEL | |
|-----------------------------|-----|-------------------|------|-------------------|
| | ppm | mg/m ³ | ppm | mg/m ³ |
| Paraquat (respirable sizes) | -- | 0.1 | -- | -- |

As published by the National Occupational Health and Safety Commission –

TWA – the Time-Weighted Average airborne concentrations over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) – the average airborne concentration over a 15 minutes period which should not be exceeded at any time during a normal eight-hour work day. According to current knowledge these concentrations should neither impair the health of nor cause undue discomfort to nearly all workers.

These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. Exposure Standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely potentially exposed during manufacture of the product.

Engineering Controls:

Well ventilated

Personal Protection:

Avoid contact with eyes and skin. Do not inhale spray mist. When preparing spray solution, wear PVC/rubber apron or cotton overalls buttoned to the neck and wrist, elbow-length PVC gloves and goggles or face-shield. After use and before eating, drinking and smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face and contaminated clothing.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

| | |
|----------------------------|--|
| Form: | liquid |
| Colour: | Clear dark blue/green |
| Odour: | Obnoxious pyridine odour |
| Boiling Point (°C): | approx. 100°C |
| Vapour Pressure: | 2.37 kPa at 20°C (water vapour pressure) |
| Flashpoint: | Non flammable |
| Specific Density: | 1.13 ± 0.01 |
| Solubility: | Soluble in water |

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability

Paraquat is inactivated by adsorption onto clay.

Conditions to avoid

Avoid direct sunlight.

Incompatible Materials

Paraquat is highly corrosive to most metals, e.g. aluminium, zinc and iron.

Hazardous decomposition products

Combustion or thermal decomposition will evolve toxic and irritant vapours.

Hazardous Reactions

Keep away from strong oxidising agents.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity – Oral

LD₅₀ (rat) 129 - 157 mg/kg for paraquat dichloride

LD₅₀ (guinea pig) 30 - 58 mg/kg

Acute Toxicity – Dermal

LD₅₀ (rat) 911 mg/kg for paraquat dichloride

LD₅₀ (rabbit) 240 mg/kg for paraquat ion

May cause temporary damage to nails and a delay in the healing of cuts and wounds.

Acute Toxicity – Inhalation

LC₅₀ (rat) (4hr) 0.5 - 1.5 µg/l for paraquat dichloride

Other Information

The Australian Acceptable Daily Intake (ADI) for paraquat (as cation) for a human is 0.004 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.45 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species.

**Data adopted from Australia ADI List, December 2023.*

Potential Health Effects

Health Effects

This product is **toxic** according to NOHSC Australia

Acute:

Inhalation:

TOXIC

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 prove fatal. If the concentrate is allowed to dry out, solid paraquat dust can be created. Paraquat dust is highly toxic (TLV 0.1mg/m³) and should not be handled without full respiratory protection.

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.

Skin contact:

IRRITANT

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.

Eye contact: IRRITANT

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.

Ingestion: TOXIC. CAN KILL IF SWALLOWED

Rapid treatment is essential. The immediate effects of poisoning depend on the dose of paraquat absorbed into the blood. Mild poisoning occurs at <20 mg paraquat ion/kg body weight and the effects are vomiting and diarrhoea. 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, diarrhoea. 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 >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.

Chronic:

Paraquat dichloride technical has been extensively tested on laboratory mammals and in test-tube systems. No evidence was obtained of mutagenic, carcinogenic, or teratogenic effects. Ocular effects (cataracts) have been reported following long term oral exposure of laboratory animals.

SECTION 12 – ECOLOGICAL INFORMATION

Acute Toxicity – Fish

LC₅₀ (96 hr) for brown trout is 2.5 - 13 mg/l for paraquat dichloride

LC₅₀ (96 hr) for mirror carp is 135 mg/l

Acute Toxicity – Daphnia

EC₅₀ (48 hr) for daphnia is 6.1 mg/l for paraquat dichloride.

Acute Toxicity – Other Organisms

The following data is for the active ingredient, paraquat dichloride.

LD₅₀ for mallard duck is 199 mg/kg

LD₅₀ for bobwhite quail is 175 mg/kg

Bees: Not toxic to bees. LD₅₀: 36 µg/bee.

Degradability

Paraquat is rapidly absorbed and inactivated by contact with soil. There is evidence of photodegradation in air.

Other Precautions

Keep domestic pets and poultry away from treated areas. This formulation should not be applied on or near water which is used for livestock watering. Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.

Environ. Protection

Spray drift should be avoided, read the label for more information. This formulation should not be applied on or near water which is used for irrigation purposes.

SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal: Instructions concerning the disposal of this product and its containers are given on the product label. These should be carefully followed.

SECTION 14 – TRANSPORT INFORMATION

ADG

UN Number: UN3016
Proper shipping name: BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC - (contains PARAQUAT)
Class: Class 6.1
Packaging group: III
Hazchem: 2X

IMO-IMDG

UN Number: UN3016
Proper shipping name: BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC - (Contains PARAQUAT)
Class: Class 6.1
Packaging group: III
Marine pollutant: Yes

SECTION 15 – REGULATORY INFORMATION

SUSMP Classification S7
Packaging & Labelling DANGEROUS POISON
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING
CAN KILL IF SWALLOWED
DO NOT PUT IN DRINK BOTTLES
KEEP LOCKED UP

SECTION 16 – OTHER INFORMATION

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

Acronyms:

ADG Code Australian Code for the Transport of Dangerous Goods by Road and Rail
CAS number Chemical Abstracts Service Registry Number
Hazchem Number Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC International Agency for Research on Cancer
NOHSC National Occupational Health and Safety Commission

| | |
|------------------|--|
| SUSMP | Standard for the Uniform Scheduling of Medicines & Poisons |
| UN Number | United Nations Number |
| GHS | Globally Harmonised System |

CONTACT POINT:

Police and Fire Brigade:

Dial 000

National Poisons Information Centre:

Dial 13 11 26 (from anywhere in Australia)

For 24 hour emergency response:

Dial 1800 951 288

03 9573 3188