

## SAFETY DATA SHEET

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

<b>Product Name:</b>	<b>Kenso Agcare Ken-Star 450 Herbicide</b>
<b>Product Type:</b>	Group I Herbicide
<b>Company Name:</b>	Kenso Corporation (M) Sdn Bhd
<b>Address:</b>	Level 1, 98 Commercial Road, Teneriffe, 4005 QLD.
<b>Telephone Number:</b>	(07) 3216 1188
<b>Facsimile Number:</b>	(07) 3216 0388
<b>Emergency Telephone Number:</b>	000 (Police or Fire Brigade) <b>13 11 26 (Poisons Information Centre)</b>
<b>Use:</b>	For the control of emerged broadleaf weeds prior to sowing crops and pastures in conservation tillage situations and for selective weed control in crops and situations detailed in the Directions For Use.

### SECTION 2 – HAZARDS IDENTIFICATION

**Hazard Classification:** Classified as hazardous according to criteria of Safe Work Australia. Not classified as a Dangerous Good according to the ADG Code.



**GHS Signal Word:** **DANGER**

**Hazard statements:**

H302: Harmful if swallowed.  
H317: May cause an allergic skin reaction.  
H318: Causes serious eye damage.  
H335: May cause respiratory irritation.  
H360: May damage fertility or the unborn child.  
H411: Toxic to aquatic life with long lasting effects.

**Prevention:**

P201: Obtain special instructions before use.  
P202: Do not handle until all safety precautions have been read and understood.  
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264: Wash contacted areas thoroughly after handling.  
P270: Do not eat, drink or smoke when using this product.  
P271: Use only in 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 and eye or face protection.  
P281: Use personal protective equipment as required.

<b>Response:</b>	<p>P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P302+P352: IF ON SKIN: Wash with plenty of soap and water.</p> <p>P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P308+P313: IF exposed or concerned: Get medical advice/attention.</p> <p>P310: Immediately call a POISON CENTER or doctor/physician.</p> <p>P312: Call a POISON CENTER or doctor/ physician if you feel unwell.</p> <p>P321: Specific treatment (see FIRST AID on this label)</p> <p>P330: Rinse mouth.</p> <p>P333+P313: If skin irritation or rash occurs: Get medical advice/attention.</p> <p>P363: Wash contaminated clothing before reuse.</p> <p>P391: Collect spillage.</p>
<b>Storage:</b>	<p>P403 + P233: Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405: Store locked up.</p>
<b>Disposal:</b>	<p>P501: Dispose of contents and containers as specified on the registered label.</p>
<b>SUSMP Classification:</b>	S6
<b>ADG Classification:</b>	None allocated. Not a dangerous good.
<b>UN Number:</b>	None allocated.

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### Emergency Overview

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**Physical Description & colour:** Clear reddish brown liquid.

**Odour:** Ammoniacal odour.

**Major Health Hazards:** The oral LD<sub>50</sub> of 2,4-D ranges from 375 to 666 mg/kg in the rat, 370 mg/kg in mice, and from less than 320 to 1000 mg/kg in guinea pigs. The dermal LD<sub>50</sub> values are 1500 mg/kg in rats and 1400 mg/kg in rabbits, respectively. In humans, prolonged breathing of 2,4-D causes coughing, burning, dizziness, and temporary loss of muscle coordination. Other symptoms of poisoning can be fatigue and weakness with possible nausea. On rare occasions following high levels of exposure, there can be inflammation of the nerve endings with muscular effects.

### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS number	Proportion
2,4D (present as Isopropylamine salt)	5742-17-6	45%
Inert ingredients	secret	to 100%

### SECTION 4 – FIRST AID MEASURES

<b>Inhalation:</b>	Remove to fresh air, keep warm and at rest. Give artificial respiration or oxygen if breathing is shallow or stopped. Get medical attention immediately.
<b>Skin contact:</b>	Remove contaminated clothing and wash affected areas or skin with soap and water. Seek medical advice if irritation develops.
<b>Eye contact:</b>	Hold the eyes and flush immediately with plenty of water. Seek medical advice if irritation develops.
<b>Ingestion:</b>	If swallowed, and if more than 15 minutes from a hospital induce vomiting, preferably using Ipecac Syrup APF. Seek medical advice immediately.

**Advice to Doctor:**

Treatment is symptomatic.

**SECTION 5 – FIRE FIGHTING MEASURES**

**Fire/Explosion Hazard**

**Dangerous Decomposition or Combustion Products**

**Thermal Decomposition**

Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas. Oxides of sulphur (sulphur dioxide is a respiratory hazard) and other sulphur compounds. Most will have a foul odour. Hydrogen chloride gas, other compounds of chlorine. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death. Hydrogen cyanide poisoning signs and symptoms are weakness, dizziness, headache, nausea, vomiting, coma, convulsions, and death. Death results from respiratory arrest. Hydrogen cyanide gas acts very rapidly; symptoms and death can both occur quickly.

**Incompatibilities**

Strong acids, strong bases, strong oxidising agents.

**Hazardous Decomposition Products**

None known

**Hazardous Reactions**

None known

**Extinguishing Media**

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

**SECTION 6 – ACCIDENTAL RELEASE MEASURES**

**Spills & Disposal**

Minor spills do not normally need any special cleanup measures. In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. Stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this MSDS and the label, instructions on the label prevail. 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.

## SECTION 7 – HANDLING AND STORAGE

### Handling

When handling this product, do not eat, drink or smoke.

When mixing this product always wear a PVC or rubber apron, elbow length PVC gloves, face shield or goggles and overalls buttoned at the wrist and neck.

When spraying this product, wear a face shield or goggles

After each days use, wash gloves, face shield or goggles and overalls.

If product gets on skin, immediately wash area with soap and water.

### Storage

Store in the closed, original container in a well-ventilated area as cool as possible out of direct sunlight. Keep from contact with fertilisers and seeds.

## SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

### Exposure Standards:

None established for formulated product

Ingredient	TWA mg/m <sup>3</sup>
2,4-D Acid	10

ADI for 2,4-D Acid is set at 0.01 mg/kg/day. The corresponding NOAEL is set at 1mg/kg/day. ADI means Acceptable Daily Intake and NOAEL means No-observable-adverse-effect-level. Values taken from Australia ADI list, Sept 2019.

### 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

<b>Form:</b>	Liquid
<b>Colour:</b>	Clear reddish brown liquid
<b>Odour:</b>	Ammoniacal odour
<b>Boiling Point (°C):</b>	About 100 °C
<b>Vapour Pressure:</b>	16 mm Hg (water)
<b>Specific Density:</b>	1.15 ± 0.01
<b>Flashpoint:</b>	Non flammable
<b>Solubility:</b>	Soluble in water

## SECTION 10 – STABILITY AND REACTIVITY

### Hazardous Polymerization

Hazardous polymerisation is not possible.

### Materials to Avoid

Reaction of the concentrate or spray mix with acids will precipitate solid 2,4-D acid and largely deactivate the product and cause blockages in spray equipment. The addition of a strong alkali such as caustic soda will cause release of mono-isopropylamine vapour. Mono-isopropylamine is moderately toxic, LD<sub>50</sub> (oral, rat) is 820 mg/kg and a TLV of 5 ppm (TWA) has been set.

## SECTION 11 – TOXICOLOGICAL INFORMATION

### Acute Toxicity – Oral

Acute oral LD<sub>50</sub> for rats: > 500 mg/kg

### Acute Toxicity – Dermal

Acute dermal LD<sub>50</sub> for rats: > 2000 mg/kg

## Potential Health Effects

**Health Effects** No LD<sub>50</sub> information is available for this product.

### Acute:

**Inhalation:** Irritation to respiratory system

**Skin contact:** Cause irritation

**Eye contact:** Cause irritation

**Ingestion:** Harmful

### Chronic:

Not available

## SECTION 12 – ECOLOGICAL INFORMATION

### Known Harmful Effects on the Environment

2,4-D products do not appear to pose any threat to birds.

2,4-D products do not appear to pose any threat to fish or other aquatic organisms other than in very high concentrations.

### Acute Toxicity – Fish

LC<sub>50</sub> (96 hr) for (rainbow trout) is >100 mg/l.

### Acute Toxicity – Daphnia

LC<sub>50</sub> (48 hr) for (daphnia) is 184 mg/l for 2,4-D (2,4-dichlorophenoxyacetic acid) dimethylamine salt.

### Acute Toxicity – Other Organisms

Not toxic to bees.

LD<sub>50</sub> for (mallard duck) is >500 mg/kg

### 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

<b>Storage and Transport:</b>	Not a dangerous good.
<b>UN Number (Sea Transport):</b>	None Allocated
<b>IMO Class/Packing Group:</b>	None Allocated
<b>IMO Marine Pollutant:</b>	None Allocated
<b>IMO Proper Shipping Name:</b>	None Allocated
<b>Hazchem code:</b>	None Allocated

### SECTION 15 – REGULATORY INFORMATION

<b>SUSMP Classification</b>	S6
<b>Packaging &amp; Labelling</b>	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING

### SECTION 16 – OTHER INFORMATION

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

**Acronyms:**

<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail
<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>Hazchem Number</b>	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
<b>IARC</b>	International Agency for Research on Cancer
<b>NOHSC</b>	National Occupational Health and Safety Commission
<b>SUSMP</b>	Standard for the Uniform Scheduling of Medicines & Poisons
<b>UN Number</b>	United Nations Number
<b>GHS</b>	Globally Harmonised System

**CONTACT POINT:**

Police and Fire Brigade:	Dial	000
<b>National Poisons Information Centre:</b>	<b>Dial</b>	<b>13 11 26 (from anywhere in Australia)</b>
For 24 hour emergency response:	Dial	0439 933 556
		Ask for Murray Goodlich