

SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product Name: Kenso Agcare Ken-Zon Herbicide
Product Type: Group I Herbicide
Company Name: Kenso Corporation (M) Sdn Bhd
Address: Level 1, 98 Commercial Road, Teneriffe, 4005 QLD.
Telephone Number: (07) 3216 1188
Facsimile Number: (07) 3216 0388
Emergency Telephone Number: 000 (Police or Fire Brigade)
13 11 26 (Poisons Information Centre)
Use: For control of a range of environmental and noxious woody and herbaceous weeds as specified in the Directions for Use table.

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: **WARNING**
Hazard statements: H227: Combustible liquid.
H302: Harmful if swallowed.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H410: Very toxic to aquatic life with long lasting effects.

Prevention: P210: Keep away from flames and hot surfaces. – No smoking.
P264: Wash contacted area thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release to the environment
P280: Wear protective gloves, protective clothing and eye or face protection.

Response: P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321: Specific treatment (see FIRST AID on this label)
P330: Rinse mouth.
P332 + P313: If skin irritation occurs: Get medical advice/attention.
P337 + P313: If eye irritation persists: Get medical advice/attention.

P362: Take off contaminated clothing and wash before reuse.
 P370 + P378: In case of fire: Use water fog, foam, dry agent (carbon dioxide, dry chemical powder) for extinction.
 P391: Collect spillage.
 P403 + P235: Store in a well-ventilated place. Keep cool.
 P501: Dispose of contents and containers as specified on the registered label.

Storage:
Disposal:
SUSMP Classification:
ADG Classification:
UN Number:

S6
 N/A
 N/A

Emergency Overview

Physical Description & colour: Clear brown liquid.
Odour: Aromatic odour.
Major Health Hazards: No major health hazard is known.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS number	Proportion
Triclopyr (present as butoxyethyl ester)	64700-56-7	30%
Picloram (present as hexyloxypropylamine salt)	1918-02-1	10%
Diethylene glycol ethyl ether	111-90-0	41%
Inert ingredients	secret	to 100%

SECTION 4 – FIRST AID MEASURES

Inhalation:	If affected, remove from contaminated area to fresh air.
Skin contact:	If on skins, remove contaminated clothing and wash affected skin thoroughly with soap and water.
Eye contact:	If in eyes, hold eyes open and flood with water for at least 15 minutes. Seek medical advice.
Ingestion:	If swallowed, do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26. Make every effort to prevent vomit from entering the lungs by careful placement of the patient.

Advice to Doctor
 Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

Specific Hazard
 Product is a combustible liquid, (C1)

Fire/Explosion Hazards

Dangerous decomposition or Combustion Products

Thermal decomposition

May produce irritating vapours under fire conditions. Combustible liquid. Breathable air apparatus may be required in confined spaces.

There is a moderate risk of an explosion from this product if it is involved in a fire. Fire decomposition products from this product may form toxic and corrosive mixtures in confined spaces.

Hazardous decomposition products

Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen, and under some circumstances, oxides of nitrogen. Hydrogen chloride gas, chlorides, and in some circumstances, phosgene. Water.

Hazardous Reactions

Avoid oxidising agents.

Extinguishing Media

Carbon dioxide, dry chemical, foam, water fog

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spills and Disposal

Contain spill and absorb with sand or proprietary absorbent (vermiculite). Prevent from entering drains, waterways or sewers. Collect in sealed open top containers for disposal. The product is an herbicide and spills should be contained. The product is relatively toxic to fish and hence should be kept from entering water bodies. Triple rinse containers, add rinsate to the spray tank, then offer container for recycling/reconditioning, or puncture top, sides and bottom and dispose off in landfill in accordance with local regulations. On-site disposal off concentrate is not acceptable.

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:

A time weighted average (TWA) has been established for picloram, present in significant quantities in this product. This value is 10 mg/m³. The corresponding STEL level is “not set”. The exposure

value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The ADI (Acceptable Daily Intake) for triclopyr is set at 0.005 mg/kg/day. The corresponding NOAEL (No-observable-adverse-effect-level) is set at 0.5 mg/kg/day. The ADI for Picloram is set at 0.07 mg/kg/day. The corresponding NOAEL is set at 7 mg/kg/day. Values taken from Australian ADI List, Sept 2019.

Engineering Controls:

In industrial situations, concentrated values below the TWA value should be maintained. Values may be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.

Personal Protection:

Moderately harmful if swallowed. Will irritate eyes and skin. When preparing with eyes and skin. Do not inhale spray mist. When preparing product for use, wear cotton overalls buttoned to the neck and wrist and washable hat, elbow length PVC gloves and effective eye protection. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly. After each day's use, wash contaminated clothing and safety equipment.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form:	liquid
Colour:	clear brown
Odour:	aromatic odour
Boiling point (°C):	Solvents may begin boiling at 196°C.
Vapour Pressure:	10 x 10 ⁻⁵ mm Hg at 33°C (triclopyr butoxyethyl ester) 65 x 10 ⁻⁷ mm Hg at 35°C (picloram acid)
Specific Gravity:	1.124 at 20°C.
Flashpoint:	82°C.
Flammability:	Combustible Liquid, (C1)
Solubility:	Emulsify in water

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability

This product is unlikely to spontaneously decompose.

Conditions to Avoid

None.

Incompatibilities

Strong oxidizing agent.

Hazardous Polymerization

Hazardous polymerization is not possible.

SECTION 11 – TOXICOLOGICAL INFORMATION

Toxicity data:

Acute Toxicity – Oral

LD₅₀ rats > 2000 mg/kg

Acute Toxicity – Dermal

LD₅₀ (rabbits) > 2000 mg/kg

Other Information

The Australian Acceptable Daily (ADI) of triclopyr for a human is 0.005 mg/kg/day, set for public for daily, lifetime exposure. This is based on the NOAEL of 0.5mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species.

The Australian Acceptable Daily (ADI) of picloram for a human is 0.07mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 7 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species.

Potential Health Effects

Health Effects

Acute:

- Inhalation:** The acute inhalation toxicity is low.
- Skin contact:** Prolonged or repeated contact may cause moderate irritation, drying or flaking of the skin.
- Eye contact:** May cause temporary, moderate eye irritation.
- Ingestion:** A moderate hazard if the concentrate is accidentally swallowed. If liquid enters the lungs may cause lung damage or even death due to chemical pneumonia, a condition caused by solvents or surfactants.

Chronic: Possible chronic health effects from exposure to Ken-Zon are based on the active ingredient. Rats and mice administered the active ingredients, picloram or triclopyr, in long-term carcinogenicity studies showed no increase in tumours when compared to the untreated group. Studies in rats and rabbits indicate that picloram and triclopyr do not cause birth defects or interfere with reproduction. Picloram and triclopyr do not cause genetic change and do not accumulate in the body.

SECTION 12 – ECOLOGICAL INFORMATION

Known Harmful Effects on the Environment

The breakdown of picloram in soil is variable and is influenced by soil moisture, temperature and organic content. Under spill conditions or very high use rates, residues could remain in the soil up to four years, particularly in arid soils. At low application rates, under warm, moist conditions, residues decline sufficiently to allow growth of susceptible plants within twelve months. In soil, picloram is degraded by photodegradation and microbial action. In water, it is degraded by ultra-violet light with a half-life of one to forty days depending on sunlight intensity. Picloram typically remains in the top thirty centimetres of a soil profile depending on soil adsorption properties.

Triclopyr butoxyethyl ester is rapidly hydrolysed to triclopyr acid in soil and water. Triclopyr acid is degraded by microbial action and photodecomposition. Triclopyr acid, in soil, has a half life of approximately forty days, depending on soil and climatic conditions. In water, triclopyr acid will

decompose rapidly with a half-life of one to two days. Minimal leaching of triclopyr acid may occur in light soils under high rainfall conditions.

Environ. Protection

Contamination of ground water by picloram and triclopyr is highly unlikely. If used according to the label, Ken-Zon Herbicide will not be harmful to the environment.

Persistence / Degradability

Picloram ester and triclopyr ester rapidly convert to the parent acids picloram and triclopyr once in soil, water, plants and animals. It is the properties of these compounds that are important in assessing any effects from treatment.

Acute Toxicity - Fish

Picloram and triclopyr have low toxicity to fish and do not bioaccumulate in animal systems.

Acute Toxicity – Other Organisms

Picloram has low toxicity to birds, honey bees, livestock and aquatic organisms. Triclopyr has low toxicity to aquatic organisms, livestock, birds and honeybees.

For Triclopyr as the butoxyethyl ester:

Non-toxic to honey bees at > 100 mg/bee

LC₅₀ (96 hrs) for rainbow trout: 0.74 mg/L

LC₅₀ (96 hrs) for bluegill sunfish: 0.87 mg/L

For Picloram:

Not toxic to bees.

LC₅₀ (96 hrs) for bluegill sunfish: 19.4 mg/L

LC₅₀ (96 hrs) for flathead minnow: 55.3 mg/L

Picloram and triclopyr do not bioaccumulate in animal systems.

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

Storage and Transport:	Considered non dangerous for road and rail transport (in packaging) by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Ref: ADG7; SP No. AU01.
UN Number (Sea Transport):	3082
IMO Class/Packing Group:	Class 9; Packing Group III
IMO Marine Pollutant:	Marine Pollutant
IMO Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Triclopyr ester and Picloram)
Hazchem code:	3Z

SECTION 15 – REGULATORY INFORMATION

SUSMP Classification S6
Packaging & Labelling 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:

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	0439 933 556 Ask for Murray Goodlich