

SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product Name: Kenso Agcare Kensban 500 Insecticide
Product Type: Group 1B Insecticide
Company Name: Kenso Corporation (M) Sdn Bhd
Address: Level 1, 98 Commercial Road, Teneriffe, QLD 4005
Telephone Number: (07) 3216 1188
Emergency Telephone Number: 000 (Police or Fire Brigade)
13 11 26 (Poisons Information Centre)
Use: For the control of certain insect pests in crops as specified in the Directions for Use.

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 (Dermal) – Category 4
Skin corrosion/ irritation – Category 1,2,3
Acute toxicity (Inhalation) – Category 4
Hazardous to the aquatic environment, long term – Chronic 3

GHS Signal Word: **DANGER**

Hazard statements: H227: Combustible liquid.
H301: Toxic if swallowed.
H304: May be fatal if swallowed and enters airways.
H319: Causes serious eye irritation
H410: Very toxic to aquatic life with long lasting effects.

Prevention: P210: Keep away from heat/sparks/open flames/hot surfaces and other ignition sources. No smoking.
P264: Wash contacted areas 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 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
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.
P331: Do NOT induce vomiting.

	P337 + P313: If eye irritation persists: Get medical advice/attention.
	P370 + P378: In case of fire: Use carbon dioxide, dry chemical, foam and water fog to extinguish.
	P391: Collect spillage.
Storage:	P403: Store in a well-ventilated place
	P405: Store locked up.
Disposal:	P501: Dispose of contents/container as specified on the registered label
SUSMP Classification:	S6
ADG Classification:	Class 6.1: Toxic substances
UN Number:	3018, ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC

Emergency Overview

Physical Description & colour: Light amber liquid.

Odour: Hydrocarbon odour.

Major Health Hazards: Poisoning from chlorpyrifos may affect the central nervous system, the cardiovascular system, and the respiratory system. It is also a skin and eye irritant. While some organophosphates are readily absorbed through the skin, studies in humans suggest that skin absorption of chlorpyrifos is limited. Symptoms of acute exposure to organophosphate or cholinesterase-inhibiting compounds may include the following: numbness, tingling sensations, incoordination, headache, dizziness, tremor, nausea, abdominal cramps, sweating, blurred vision, difficulty breathing or respiratory depression, and slow heartbeat. Very high doses may result in unconsciousness, incontinence, and convulsions or fatality.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS number	Proportion
Chlorpyrifos	2921-88-2	50%
Inert ingredients	secret	20%
Aromatic hydrocarbon solvent	secret	To 100%

SECTION 4 – FIRST AID MEASURES

Inhalation:	Remove victim from exposure – avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.
Skin contact:	Wash contaminated skin with plenty of water. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice.
Eye contact:	Irrigate with copious quantities of water for at least 15 minutes. In all cases of eye contamination it is sensible precaution to seek medical advice.
Ingestion:	If poisoning occurs, contact a doctor or Poisons Information Centre (Tel 131126). Administer one Atropine tablet every 5 minutes until dryness of the mouth occurs. If excessive dryness of mouth occurs cease Atropine treatment. Seek medical advice.

Advice to Doctor:

Cholinesterase inhibitor, readily absorbed through the skin, cholinesterase activity recovers on removal from contact, approx. two weeks to restore normal levels.

Atropine treatment may be necessary in combination with 1 g IV Pralidoxime for profound weakness and muscle twitching.

NB: This product also contains liquid hydrocarbon. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary oedema.

SECTION 5 – FIRE FIGHTING MEASURES

Specific Hazard

Product is a combustible liquid, (C1)

Fire/Explosion Hazards

Dangerous Decomposition or Combustion Products

Thermal Decomposition

Solvent vapours are flammable/explosive, where sufficient vapour exists. Avoid all ignition sources. High flash point combustible solvents. Flash point: 89°C. Large fires have the potential to release decomposition products, use full protective clothing including breathing air system.

Extinguishing Media

Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder)

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spills & Disposal

Clean up immediately. Wear protective equipment to prevent skin and eye contamination. Contain using sand or soil – prevent run off into drains and waterways. Use adsorbent (soil, sand or other inert material). Collect and seal in properly labelled containers for disposal. Alkali's, i.e. lime and soda ash hasten decomposition of chlorpyrifos.

Triple rinse containers, add rinsings to spray tanks and send containers for recycling or if not recycling, break, crush or puncture and bury empty containers in a local authority landfill or in accordance with local, state or federal regulation. Do not dispose of undiluted chemicals on site.

Personal Protection

For appropriate personal protective equipment (PPE), refer Section 8.

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 day's 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 ³
Chlorpyrifos	0.2

Engineering Controls:

Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

Personal Protection:

Harmful if swallowed. Will irritate the eyes and skin. Facial skin contact may cause temporary facial numbness. Avoid contact with eyes and skin. Avoid inhaling vapour or spray mist. When preparing spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and a face-shield or goggles. If product in eyes, wash it out immediately with water. 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.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Colour:	Clear light amber liquid
Odour:	Hydrocarbon odour
Vapour Pressure:	Not applicable
Specific Gravity:	1.09 ± 0.01
Flashpoint:	89°C
Flammability:	Combustible Liquid, (C1)
Solubility:	Emulsify in water

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability

This product is unlikely to react or decompose under normal storage conditions.

Conditions to avoid

This product should be kept in a cool place, preferably below 30°C.

Incompatibilities

Strong oxidising agents.

Polymerisation

This product is unlikely to undergo polymerisation processes.

SECTION 11 – TOXICOLOGICAL INFORMATION

Toxicity data (On Chlorpyrifos technical)

Acute Toxicity – Oral

LD₅₀ (rats) 95 - 270 mg/kg

LD₅₀ (mice) 60 mg/kg

LD₅₀ (rabbits) 1000 mg/kg

Acute Toxicity – Dermal

LD₅₀ (rats) >2000 mg/kg

LD₅₀ (rabbits) 1000-2000 mg/kg

Acute Toxicity – Inhalation:

LC₅₀ (rats) (4hr) >0.2 mg/l

Potential Health Effects

Health Effects

Acute:

- Inhalation:** Mildly toxic. Avoid breathing spray mists.
- Skin contact:** Severe irritant readily absorbed through skin and causes Cholinesterase inhibition symptoms.
- Eye contact:** Severe irritant
- Ingestion:** Muscle tremor, weakness and sweating. Effects body motor system. Cholinesterase inhibition symptoms.

Chronic:

Cholinesterase activity returns to normal after ceasing exposure, generally 2 weeks. Repeated exposure could result in peripheral nervous system damage.

Chronic toxicity

Repeated or prolonged exposure to organophosphates may result in the same effects as acute exposure including the delayed symptoms, other effects reported in workers repeatedly exposed include impaired memory and disorientation, irritability, headache, concentration, severe depression, speech difficulties, delayed reaction times, nightmares, sleepwalking, and drowsiness or insomnia. An influenza-like condition with headache, weakness, loss of appetite, and malaise has also been reported.

Other Information

The Australian ADI for Chlorpyrifos is set at 0.001 mg/kg/day with corresponding NOAEL is set at 0.1 mg/kg/day. *ADI= Acceptable Daily Intake; NOAEL: No Observable Adverse Effect Level. Data adopted from Australia ADI List, December 2022.

SECTION 12 – ECOLOGICAL INFORMATION

Effects on birds

Chlorpyrifos is moderately to very highly toxic to birds.

LD₅₀ for pheasants is 8.41mg/kg

LD₅₀ for mallard ducks is 112 mg/kg

LD₅₀ for chickens is 32mg/kg

Effects on aquatic organisms

Chlorpyrifos is very highly toxic to freshwater fish, aquatic invertebrates and estuarine and marine organisms.

LC₅₀ (96 hr) for chlorpyrifos in mature rainbow trout is 0.009 mg/l

LC₅₀ (96 hr) for chlorpyrifos in lake trout is 0.098 mg/l

LC₅₀ (96 hr) for chlorpyrifos in goldfish is 0.01 mg/l

LC₅₀ (96 hr) for chlorpyrifos in fathead minnow is 0.331 mg/l

Acute Toxicity – Other Organisms

Aquatic and general agricultural uses of chlorpyrifos pose a serious hazard to wildlife and honeybees.

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: 3018
Proper shipping name: ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC
Class: Class 6.1
Packaging group: III
Hazchem: 2X

IMO-IMDG

UN Number: 3018
Proper shipping name: ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC
Class: Class 6.1
Packaging group: III
Marine pollutant: Yes

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	0428 776 327 Ask for Russell Clark