

SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product Name: Kenso Agcare Bifenthrin Termiticide & Insecticide
Product Type: Group 3A 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 protection of structures from subterranean termite damage, for the control of termites and a range of other urban pests, and for the control of various insect and mite pests in a variety of crops, including turf, 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.



Classification of the Hazardous Chemical: Flammable liquids – Category 4
Acute toxicity (Oral) – Category 4
Skin sensitization – Category 1
Serious eye damage/eye irritation -Category 2/2A
Acute toxicity (Inhalation) – Category 4
Hazardous to the aquatic environment, long-term – Chronic 1

GHS Signal Word: **WARNING**

Hazard statements: H227: Combustible liquid.
H302: Harmful if swallowed
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H332: Harmful if inhaled.
H410: Very toxic to aquatic life with long lasting effects.
Prevention: P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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 outdoors or in a well-ventilated area.

Response:

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.

P301+P312: IF SWALLOWED: Call a POISON CENTER/doctor/ physician if you feel unwell.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P304+P340: IF INHALED: Remove person to fresh air and keep 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.

P312: Call a POISON CENTER/ doctor/physician if you feel unwell.

P321: Specific treatment (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.

P362+P364: Take off contaminated clothing and wash it before reuse.

P370+P378: In case of fire: Use water fog, foam, dry agent (carbon dioxide, dry chemical powder) to extinguish.

P391: Collect spillage.

Storage:

P403: Store in a well-ventilated place.

Disposal:

P501: Dispose of contents and containers as specified on the registered label.

SUSMP Classification:

S6

ADG Classification:

N/A

UN Number:

N/A

Emergency Overview

Physical Description & colour: Liquid, light brown

Odour: Solvent

Major Health Hazards: No major health hazard is known.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS number	Proportion
Bifenthrin	82657-04-3	10%
Inert ingredients	secret	<15%
Solvent	64742-95-6	to 100%

SECTION 4 – FIRST AID MEASURES

Inhalation:	Remove victim from area of 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:	If skin contact occurs, remove contaminated clothing and wash skin thoroughly. If irritation occurs seek medical advice.
Eye contact:	If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.
Ingestion:	If poisoning occurs, contact a doctor or Poisons Information Centre. If swallowed, and if more than 15 minutes from a hospital: INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. NOTE: Wear a protective glove when inducing vomiting by mechanical means. REFER FOR MEDICAL ATTENTION WITHOUT DELAY. In the meantime, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient condition. If the services of a medical officer or medical doctor are readily available, the patient should be placed in his /her care and a copy of the MSDS should be provided. Further action will be the responsibility of the medical specialist. If medical attention is not available on the worksites or surroundings send the patient to a hospital together with a copy of the MSDS.

Advice to Doctor

Treat symptomatically. In cases of skin contact with synthetic pyrethroids, it has been reported that tropical application of Vitamin E cream has a therapeutic value, eliminating almost 100% of the skin pain associated with synthetic pyrethroids.

SECTION 5 – FIRE FIGHTING MEASURES

Specific Hazard

Product is a combustible liquid, (C1)

Fire/Explosion Hazard

Dangerous Decomposition or Combustion Products

Thermal Decomposition

Slight fire hazard when exposed to heat or flame.

Heating may cause expansion or decomposition leading to violent rupture of containers.

On combustion, may emit toxic fumes of carbon monoxide (CO).

May emit acid smoke.

Mists containing combustible materials may be explosive.

Other decomposition products include carbon monoxide (CO), hydrogen fluoride and hydrogen chloride.

Hazardous Decomposition Products

Toxic fumes.

Hazardous Reactions

Avoid oxidising agents. Strong acids or alkalines will slowly decompose bifenthrin.

Extinguishing Media

Use water spray or fog, alcohol stable foam, dry chemical powder or carbon dioxide.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spills and Disposal

MINOR SPILLS

Slippery when spilt.

Remove all ignition sources.

Clean up all spills immediately.

Avoid breathing vapours and contact with skin and eyes.

Control personal contact by using protective equipment.

Contain and absorb spill with sand, earth, inert material or vermiculite.

Wipe up.

Place in a suitable labelled container for waste disposal.

Wash spill area with detergent and water.

MAJOR SPILLS

Slippery when spilt.

Moderate hazard.

Clear area of personnel and move upwind.

Alert Fire Brigade and tell them location and nature of hazard.

Wear breathing apparatus plus protective gloves.

Prevent, by any means available, spillage from entering drains or course.

No smoking, naked lights or ignition sources.

Increase ventilation.

Stop leak if safe to do so.

Contain spill with sand, earth or vermiculite.

Collect recoverable product into labelled containers for recycling.

Absorb remaining product with sand, earth or vermiculite.

Collect solid residues and seal in labelled drums for disposal.

Wash area and prevent runoff into drains.

If contamination of drains or waterways occurs, advise emergency services.

DISPOSAL

Consult manufacturer for recycling options and recycle where possible.

Consult State Land Waste Management Authority for disposal.

Incinerate residue at an approved site.

Recycle containers if possible, or dispose of in an authorised landfill.

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:

No value assigned for this specific material by the National Occupational Health and Safety Commission.

Engineering Controls:

IN THE WORKPLACE: Use in well ventilated areas. Use with local exhaust ventilation or while wearing organic vapour/ particulate respirator. Keep containers closed when not in use.

Personal Protection:

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, RESPIRATOR.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Colour:	Brown
Odour:	Solvent
Boiling Point (°C):	Not applicable
Vapour Pressure:	Not applicable
Specific Density:	Not applicable
Flammability:	Combustible Liquid, (C1)
Solubility:	Emulsify in water

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability

This product is stable under normal storage conditions.

Conditions to Avoid

None.

Incompatibilities

Avoid storage with oxidisers.

Hazardous Polymerization

Hazardous polymerization is not possible.

SECTION 11 – TOXICOLOGICAL INFORMATION

Toxicity data (On Bifenthrin technical)

Acute oral LD₅₀ for rats 54.5 mg/kg

Acute percutaneous LD₅₀ for rabbits >2000 mg/kg

Potential Health Effects

Health Effects

Acute:

- Inhalation:** The vapour/mist is discomforting to the upper respiratory tract. Inhalation hazard is increased at higher temperatures. Acute effects from inhalation of high vapour concentrations may be chest and nasal irritation with coughing, sneezing, headache and even nausea. If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death. Inhaling high concentrations of mixed hydrocarbons can cause narcosis with nausea, vomiting and light headedness. Low molecular weight (C2-C12) hydrocarbons can irritate mucous membranes and cause incoordination, giddiness, nausea, vertigo, confusion, headache, appetite loss, drowsiness, tremors and stupor. Massive exposures can lead to severe central nervous system depression, deep coma and death. Convulsion can occur due to brain irritation and/ or lack of oxygen. Permanent scarring may occur, with epileptic seizures and brain bleeds occurring months after exposure. Respiratory system effects include inflammation of the lungs with oedema and bleeding. Lighter species mainly cause kidney and nerve damage; the heavier paraffins and olefins are especially irritant to the respiratory system. Alkenes produce pulmonary oedema at high concentrations. Liquid paraffins may produce sensation loss and depressant actions leading to weakness, dizziness, slow and shallow respiration, unconsciousness, convulsions and death. C5-7 paraffins may also produce multiple nerve damage. Aromatic hydrocarbons accumulate in lipid rich tissues (typically the brain, spinal cord and peripheral nerves) and may produce functional impairment manifested by non-specific symptoms such as nausea, weakness, fatigue, vertigo; severe exposure may produce inebriation or unconsciousness. Many of the petroleum hydrocarbons can sensitise the heart and may cause ventricular fibrillation, leading to death.
- Skin contact:** The liquid is discomforting to the skin and may cause drying of the skin, which may lead to dermatitis. Toxic effects may result from skin absorption.
- Eye contact:** The liquid produces a high level of eye discomfort and is capable of causing pain and severe conjunctivitis. Corneal injury may develop, with possible permanent impairment of vision, if not promptly and adequately treated. The spray mist is highly discomforting to the eyes. The vapour when concentrated has pronounced eye irritation effect and this gives some

warning of high vapour concentrations. If eye irritation occurs seek to reduce exposure with available control measures, or evacuate area.

Ingestion: Considered an unlikely route of entry in commercial/industrial environments. The liquid is highly discomforting and may be toxic if swallowed, even fatal if swallowed in quantity. Ingestion may result in nausea, pain, vomiting. Vomit entering the lungs by aspiration may cause potentially lethal chemical pneumonitis. Ingestion of petroleum hydrocarbons can irritate the pharynx, oesophagus, stomach and small intestine, and cause swellings and ulcers of the mucous. Symptoms include a burning mouth and throat; larger amounts can cause nausea and vomiting, narcosis, weakness, dizziness, slow and shallow breathing, abdominal swelling, unconsciousness and convulsions. Damage to the heart muscle can produce heart beat irregularities, ventricular fibrillation (fatal) and ECG changes. Can be depressed the central nervous system. Light species can cause a sharp tingling of the tongue and cause loss of sensation there. Aspiration can cause cough, gagging, pneumonia with swelling and bleeding.

Chronic: Principle routes of exposures are usually by inhalation of vapour/ spray mist and skin contact with the material. Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin. Chronic exposure to lighter hydrocarbons can cause nerve damage, peripheral neuropathy, bone marrow dysfunction and psychiatric disorders as well as damage the liver and kidneys.
Bifenthrin produced tumours following repeated exposure by dogs, rats, rabbits and mice to Bifenthrin. Bifenthrin is not genotoxic. Prolonged or continuous skin contact with the liquid may cause defatting with drying, cracking, irritation and dermatitis following.

SECTION 12 – ECOLOGICAL INFORMATION

Acute Toxicity - Fish

Very toxic to fish.

LC₅₀ (96 hrs): 0.00015 mg/L in rainbow trout
0.00035 mg/L in bluegill sunfish

LC₅₀ (48 hrs): 0.00016mg/L in daphnia magna

Acute Toxicity – Other Organisms

Terrestrial toxicity:

Oral LD₅₀ (mallard duck): harmful to terrestrial species. Harmful to bees. 2,150 mg/kg

Oral LD₅₀ (bobwhite quail): 1,800 mg/kg

Oral LD₅₀ (µg/bee): 0.1µg/bee

Contact LD₅₀ (µg/bee): 0.0146 µg/bee

Persistence / Degradability

Half life ranging from 65-125 days (depending upon soil type).

Environmental Fate

It has a high affinity for organic matter and is not mobile. There is a potential for bioconcentration up the food chain.

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:	3082
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (contains BIFENTHRIN)
Class:	9
Packaging group:	III
Hazchem:	3Z
Storage and Transport:	Considered non dangerous for road and rail transport (in packaging) by the Australian Code for Transport of Dangerous Goods by Road and Rail. Ref: ADG7; SP No. AU01.

IMO-IMDG

UN Number:	3082
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (contains BIFENTHRIN)
Class:	9
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	1800 951 288 03 9573 3188