SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product Name:	**Kenso Agcare Kenzar FS Flowable Seed Dressing Insecticide**
Product Type:	Group 3A + 4A Insecticide
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:	For treatment of Canola and Cereal seed for early plant protection against Aphids, Red Legged Earth Mite and Lucerne Flea.

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:
Acute toxicity (Oral) – Category 5
Skin sensitization – Category 1
Respiratory sensitization – Category 1
Reproductive toxicity – Category 2
Hazardous to the aquatic environment, long-term – Chronic 1

GHS Signal Word: **DANGER**

Hazard statements:
H303: May be harmful if swallowed.
H317: May cause an allergic skin reaction.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H361: Suspected of damaging fertility or the unborn child.
H410: Very toxic to aquatic life with long lasting effects.

Prevention:
P201: Obtain special instruction before use.
P202: Do not handle until all safety precautions have been read and understood.
P261: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
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.
P284: In case of inadequate ventilation wear respiratory protection.

Response:	P301+P312: IF SWALLOWED: Call a POISON CENTRE or 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. P308+P313: IF exposed or concerned: Get medical advice/ attention. P321: Specific treatment (see FIRST AID on this label). P333+P313: If skin irritation or rash occurs: Get medical advice/attention. P342+P311: If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician. P362+P364: Take off contaminated clothing and wash it before reuse. P391: Collect spillage.
Storage:	P405: Store locked up.
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: Light red to dark red suspension liquid
Odour: Faint chemical odour
Major Health Hazards: May irritate the eyes. Facial skin contact may cause temporary facial numbness. Avoid contact with eyes.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS number	Proportion
Lambda-cyhalothrin	91465-08-6	3.75 %
Thiamethoxam	153719-23-4	21%
Inert ingredients	secret	To 100 %

SECTION 4 – FIRST AID MEASURES

General Information:
If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131 126. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

Inhalation:	Remove to fresh air until recovered. If symptoms persist, seek medical advice.
Skin contact:	Remove contaminated clothing and launder before use. Wash affected areas or skin thoroughly with soap and water. Seek medical advice if irritation develops.

Eye contact:	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek immediate medical attention.
Ingestion:	If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

Advice to Doctor:
Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

Fire/Explosion Hazards
Dangerous Decomposition or Combustion Products
Thermal Decomposition
Products contains combustible organic components, combustion will produce dense black smoke containing irritating and toxic gases such as monoxide and carbon dioxide. Exposure to decomposed products may be hazardous to health. Take suitable protective measures.
Extinguishing Media
Water fog, foam, carbon dioxide or dry chemical. Do not use solid water stream as it may scatter and spread fire.
Fire Fighting
Fire-fighter should wear appropriate protective equipment with self-contained breathing apparatus. DO not allow run-off from fire-fighting to enter water courses. Cool closed container exposed to fire with water spray.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spills & Disposal
Keep bystanders away. Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect spilled material and waste in sealable open-top type containers for disposal.
Personal Protection
For appropriate personal protective equipment (PPE), refer Section 8.
Clean-up Methods – Large Spillages
Place damaged containers in recovery bins (if available) and return to manufacturer. If large liquid spills occur, attempt to recover as much spilt material from sumps and bunded areas absorbing remaining material into vermiculite or other absorbent.

SECTION 7 – HANDLING AND STORAGE

Handling
When handling this product, do not eat, drink or smoke. May irritate the eyes. Facial skin contact may cause temporary facial numbness. Avoid contact with eyes. When preparing the slurry and using the prepared slurry, wear chemical resistant clothing buttoned to the neck, wrist and ankles, washable hat, elbow length chemical resistant gloves. When undertaking bagging sewing activities,

wear cotton overalls over normal clothing buttoned to the neck and wrist, half facepiece respirator with dust cartridge or canister. When handling treated seed, wear elbow length chemical resistant gloves, half facepiece respirator with dust cartridge or canister. If product on skin, immediately wash area with soap and water.

Storage

Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls

Handle in well-ventilated areas, use of local exhaust ventilation controls if airborne mists or vapours are generated.

Personal Protective Equipment

When preparing the slurry and using the prepared slurry, wear chemical resistant clothing buttoned to the neck, wrist and ankles, washable hat, elbow length chemical resistant gloves. When undertaking bagging sewing activities, wear cotton overalls over normal clothing buttoned to the neck and wrist, half facepiece respirator with dust cartridge or canister. When handling treated seed, wear elbow length chemical resistant gloves, half facepiece respirator with dust cartridge or canister.

Eye Protection

Eye protection is essential. Wear a face shield or goggles.

Hygiene Measures

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, and contaminated clothing.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Colour:	Light red to dark red
Odour:	Faint chemical odour
pH:	4.0 – 8.0
Boiling Point (°C):	About 100°C
Flashpoint:	Non flammable
Vapour Pressure:	Not available
Specific gravity:	1.12 ± 0.01 g/cm^3
Water Solubility:	Dispersible

SECTION 10 – STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions.

Conditions to Avoid

Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.

Incompatibilities
Strong oxidising agents and strong acids.
Fire Decomposition
Combustion or thermal decomposition may emit toxic and irritant vapors.
Polymerisation
This product will not undergo polymerisation reactions.

SECTION 11 – TOXICOLOGICAL INFORMATION

Toxicity data (of technical)
Acute Toxicity – Oral
LD_{50} (rat): 56-79 mg/kg for lambda-cyhalothrin; 1563 mg/kg for thiamethoxam
Acute Toxicity - Dermal
LD_{50} (rat): 632-696 mg/kg for lambda-cyhalothrin; >2000 mg/kg for thiamethoxam
Acute Toxicity – Inhalation:
LC_{50} (rats) (4hr): 0.06 mg/L air (total particulate); >3720 mg/m^3 for thiamethoxam
Skin irritation: NON IRRITANT for lambda-cyhalothrin and thiamethoxam
Eye irritation: MILD IRRITANT for lambda-cyhalothrin, NON IRRITANT for thiamethoxam
Sensitization: NON SENSITISER for lambda-cyhalothrin and thiamethoxam

Potential Health Effects

Health Effects
Product may irritate the eyes. Facial skin contact may cause temporary facial numbness.

Acute:

Inhalation: Product may cause allergy or asthma symptoms or breathing difficulties if inhaled. Move victims to fresh air and if breathing is irregular or stopped, administer artificial respiration. Seek medical attention immediately.

Skin contact: Product if contacted on face will cause temporary facial numbness. This product causes skin contact paraesthesia effects (itching, tingling, burning or numbness) yet unlikely to cause anything more than mild transient comfort.

Eye contact: Product is moderate eye irritant. Avoid contact with eyes. Symptoms like stinging, reddening of eyes and watering which may become copious may developed. Symptom disappear when exposure stopped and first aid measure taken.

Ingestion: This product may be harmful if swallowed. If swallowed, seek medical advice immediately and show the product container or label. Do not induce vomiting. Symptoms should disappear once exposure has ceased.

Reproductive Toxicity
No evidence of reproductive effects was obtained for thiamethoxam technical. Minor reproductive and developmental effects were noted in animal studies for lambda-cyhalothrin technical.
Mutagenicity
Data indicates no mutagenic effects for both thiamethoxam and lambda-cyhalothrin.
Carcinogenicity
No carcinogenicity potential was noticed in rats for thiamethoxam technical. Liver tumors were observed in carcinogenicity study on mice but occurred at dose levels that interfered with normal liver function and is considered to be related to sustained regenerative cell proliferation related to cell death supported by a phenobarbital-like enzyme induction. Special studies indicated that thiamethoxam acts as an inducer of metabolizing liver enzymes in the mouse. This effect had a clear threshold level and was of a type specific to mice and is not considered relevant to humans. No carcinogenic effects is observed for lambda-cyhalothrin technical.
Other Information
The ADI for lambda-cyhalothrin is set at 0.001 mg/kg/day with corresponding NOEL is set at 0.1 mg/kg/day. The ADI for thiamethoxam is set at 0.02 mg/kg/day with corresponding NOEL is set at 2.0 mg/kg/day **ADI= Acceptable Daily Intake; NOEL: No Observable Effect Level. Data adopted from Australia ADI List, June 2023.*

SECTION 12 – ECOLOGICAL INFORMATION

Very toxic to aquatic life with long lasting effects.

Ecotoxicity data (of technical)
Acute Toxicity – Bird
LD_{50} mallard duck: >3950 mg/kg for lambda-cyhalothrin; 576 mg/kg for thiamethoxam
Acute Toxicity – Fish
LC_{50} trout (96 hrs): 0.36 µg/L for lambda-cyhalothrin; >100 mg/L for thiamethoxam
Acute Toxicity – Crustaceans
Daphnia EC_{50} (48 hrs): 0.26 µg/L for lambda-cyhalothrin; >100 mg/L for thiamethoxam
Acute Toxicity – Other organisms
Algae**:** EC_{50} *Selenastrum capricornutum* (96 hrs): >1000 µg/L for lambda-cyhalothrin.
Algae**:** EC_{50} Green algae (96 hrs): >100 mg/L for thiamethoxam
Earthworms**:** EC_{50} (14 days): >1000 mg/kg soil for lambda-cyhalothrin; >1000 mg/kg soil for thiamethoxam
Bees: LD_{50} (contact): 38 ng/bee for lambda-cyhalothrin; 0.024 µg/bee for thiamethoxam.

ENVIRONMENTAL FATE
For lambda-cyhalothrin, it degraded rapidly in soil. It is immobile in soil, absorbed strongly to soil and sediment organic matter, K_{oc} 330 000. Potential for leaching and its degradation products through soil is negligible. Rapid dissipation from water in aquatic systems.
Thiamethoxam has medium mobility in soil. Photolysis accelerates degradation in soil. Stables in water under acidic condition and hydrolysed under alkaline conditions. No bioaccumulation, no significant volatilization and efficiently degraded in air by photochemical oxidative degradation.

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 LAMBDA CYHALOTHRIN and THIAMETHOXAM)
Class:	9
Packaging group:	III
Hazchem:	2X
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

IMO-IMDG

UN Number:	3082
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (contains LAMBDA CYHALOTHRIN and THIAMETHOXAM)
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	0428 776 327 Ask for Russell Clark