SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product Name:	**Kenso Agcare Tri-allate Selective Herbicide**
Product Type:	Group J Herbicide
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 the control of wild oats in Wheat, Triticale, Chickpeas, Barley, Peas, Linseed, Lupins, Canola (Rapeseed), Faba beans and Safflower as per 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.

Classification of the Hazardous Chemical:
Flammable liquids – Category 4
Acute toxicity (Oral) – Category 4
Aspiration hazard – Category 1
Skin corrosion/ irritation – Category 2
Skin sensitization – Category 1
Specific target organ toxicity (Single exposure) – Category 3
Specific target organ toxicity (Repeated exposure) – Category 2
Hazardous to the aquatic environment, long term – Chronic 1

GHS Signal Word: **DANGER**

Hazard statements:
H227: Combustible liquid.
H302: Harmful if swallowed.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H336: May cause drowsiness or dizziness
H373: May cause damage to organs through prolonged or repeated exposure.
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.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P264: Wash contacted area thoroughly after handling.

	P270: Do not eat, drink or smoke when using this product. P271: Use only 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/eye protection/face protection.
Response:	P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. 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. P312: Call a POISON CENTER or doctor/physician if you feel unwell. P314: Get medical advice/attention if you feel unwell. P321: Specific treatment (see FIRST AID on this label). P330: Rinse mouth. P331: DO NOT induce vomiting. P333 + P313: If skin irritation or rash occurs: Get medical advice/ attention. P362 + P364: 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) to extinguish. P391: Collect spillage.
Storage:	P403 + P233: Store in a well-ventilated place. Keep container tightly closed. P405: Store locked up..
Disposal:	P501: Dispose of contents/container as specified on the registered label
SUSMP Classification:	S5
ADG Classification:	N/A
UN Number:	N/A

Emergency Overview

Physical Description & colour: Amber to brown coloured liquid.
Major Health Hazards: Technical Tri-allate is harmful by ingestion and practically nontoxic via dermal exposure or inhalation. Inhalation exposure to large amounts of thiocarbamates may cause itching, scratchy throat, sneezing and coughing. Tri-allate is moderately irritating to the skin and is a mild eye irritant.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS number	Proportion
Tri-allate	2303-17-5	50%
Inert ingredients	secret	<15%
Liquid Hydrocarbon	secret	to 100%

SECTION 4 – FIRST AID MEASURES

General Information:
If poisoning occurs, contact a doctor or Poisons Information Centre, Phone Australia 131 126.

Inhalation:	First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.
Skin contact:	Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed. If in doubt obtain medical advice.
Eyes contact:	No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes.
Ingestion:	If swallowed, do not induce vomiting. Wash mouth with water and contact a Poisons Information Centre or call a doctor.

Advice to Doctor
Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

Specific Hazard
Product is a combustible liquid, (C1)
Fire/Explosion Hazard
Dangerous Decomposition or Combustion Products
Thermal Decomposition
This product is classified as a C1 combustible product. There is a slight risk of an explosion from this product if commercial quantities are involved in a fire. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances
Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.
Extinguishing Media
Preferred extinguishing media are carbon dioxide, dry chemical, foam, water fog.
Protective Equipment
When fighting fires involving significant quantities of this product, wear a splash suit complete with self contained breathing apparatus.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spills & Disposal: Contain spill and absorb with sand or proprietary absorbent (vermiculite). Prevent from entering drains, waterways or sewers. Collect in sealable open-top containers for disposal. Triple rinse containers, add rinsate to the spray tank, then offer container for recycling/reconditioning,

or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. On-site disposal of concentrate is not acceptable.
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 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

National Exposure Standards:
Exposure limits have not been established by NOHSC for any of the significant ingredients in this product. ADI for Tri-allate is set at 0.005 mg/kg/day. The corresponding NOEL is set at 0.5 mg/kg/day. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, March 2016.
Engineering Controls:
In the field natural ventilation is adequate when handling the concentrated product.
Protective Equipment:
May irritate the eye and skin. Avoid contact with eyes and skin. Avoid inhalation of spray mist. When preparing spray, wear cotton overalls buttoned to the neck and wrist, washable hat, and elbow-length PVC gloves. Wear goggles when handling the concentrate and preparing the spray. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash contaminated clothing and gloves.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form:	liquid
Colour:	amber to brown
Melting point (°C):	no specific data, liquid at normal temperatures
Specific Gravity:	1.104
Vapour Pressure:	no data.
Flammability:	Combustible liquid, (C1)
Solubility	Emulsify in water

SECTION 10 – STABILITY AND REACTIVITY

Stability
This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.
Conditions to Avoid
This product should be kept in a cool place, preferably below 30ºC. Containers should be kept dry.
Incompatibilities
Strong acids, strong bases, strong oxidizing agents.
Fire 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 sulfur (sulfur dioxide is a respiratory hazard) and other sulfur 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.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity – Oral
The following data is for the active ingredient, tri-allate.
LD_{50} (rat) 800-2165 mg/kg
LD_{50} (mice) 930 mg/kg
The following data is for the emulsifiable concentrate formulation.
LD_{50} (rat) 2700 mg/kg
Acute Toxicity – Dermal
The following data is for the active ingredient, tri-allate
LD_{50} (rat) 3500 mg/kg
LD_{50} (rabbit) 8200 mg/kg
Acute Toxicity – Inhalation
LC_{50} (cat) (4hr) 0.4 mg/l

Potential Health Effects

Health Effects

Acute:

Inhalation: No adverse respiratory effects are expected due to the physical properties of the components – low volatility. However care should be taken to avoid inhalation of excessive amount of spray mist.

Skin contact: Slightly to moderately irritating to skin. Prolonged or repeated skin contact may cause redness and dry skin, resulting in contact dermatitis.

Eye contact: The concentrate may cause irritation of the eyes.

Ingestion: The product has been classified as harmful if swallowed, according to the Worksafe Criteria. Amounts swallowed incidental to normal handling

procedures are not expected to cause injury. However swallowing of large quantities may cause injury. If aspirated, that is vomitus enters the lung, the petroleum derived solvent may cause chemical pneumonitis.

Carcinogen Status:
NOHSC: No significant ingredient is classified as carcinogenic by NOHSC.
NTP: No significant ingredient is classified as carcinogenic by NTP.
IARC: No significant ingredient is classified as carcinogenic by IARC.

Other Information
Australian ADI for Triallate is set at 0.005 mg/kg/day, and the corresponding NOEL at 0.5 mg/kg/day.
**ADI= Acceptable Daily Intake; NOAEL: No Observable Adverse Effect Level. Data adopted from Australia ADI List, June 2023.*

SECTION 12 – ECOLOGICAL INFORMATION

Environmental Protection
Dangerous to fish. Not toxic to bees. Do not spray in high winds. Do not contaminate dams, waterways or sewers with pesticides or used containers. Do not use this container for any other purpose. Wash out the container and dispose of it in an approved manner.

Persistence / Degradability
Tri-allate tends to be strongly adsorbed to soil. Biodegradation in soil is dependent on temperature, moisture and other factors. Half life in soil has been quoted to range from 3-195 days, generally 8-11 weeks. Tri-allate bioaccummulates in fish, log Kow = 4.54.

Toxicity – Fish:
LC_{50} (96hr) (rainbow trout) 1.2 mg/l
LC_{50} (96hr) (bluegill sunfish) 1.3 mg/l

Toxicity – Birds: Moderate toxic
Acute oral LD_{50} (bobwhite quail) 2251 mg/kg

Toxicity – Bees:
Not toxic to bees.

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 TRIALLATE)
Class:	9
Packaging group:	III
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 TRIALLATE)
Class:	9
Packaging group:	III
Marine pollutant:	Yes

SECTION 15 – REGULATORY INFORMATION

SUSMP Classification	S5
Packaging & Labelling	CAUTION 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