

MATERIAL SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product Name:	Kenso Agcare Ken-Gran 750 WG Selective Herbicide
Product Type:	Group B Herbicide
Company Name:	Kenso Corporation (M) Sdn Bhd
Address:	Kirkland Corner H/177, Old Cleveland Rd. Coorparoo Queensland 4151
Telephone Number:	(07) 3847 4288
Facsimile Number:	(07) 3847 4188
Emergency Telephone Number:	000 (Police or Fire Brigade) 13 11 26 (Poisons Information Centre)
Use:	For pre-plant control of Annual Ryegrass, Paradoxa Grass and certain broadleaf weeds in Wheat, and for post-emergent control of Wild Radish in Wheat, Oats and Barley as per Directions for Use table.

SECTION 2 – HAZARDS IDENTIFICATION

Risk Phrases:	Not hazardous – No criteria found.
Safety Phrases:	Not hazardous – No criteria found.
SUSDP Classification:	None allocated.
ADG Classification:	None allocated. Not a Dangerous Good.
UN Number:	None allocated

Emergency Overview

Physical Description & colour:	Off-white granule.
Odour:	Mild odour.
Major Health Hazards:	No significant risk factors have been found for this product.

Potential Health Effects

Acute:

Swallowed:	This product unlikely to cause any irritation problems in the short or long term.
Eye:	Available data shows that this product is not harmful. However product may be mildly irritating to eyes, but is unlikely to cause anything more than mild discomfort which should disappear once product is removed.
Skin:	Available data shows that this product is not harmful. It should present no hazards in normal use. However product may be mildly irritating, but is unlikely to cause anything more than mild discomfort which should disappear once contact ceases.
Inhaled:	Available data indicates that this product is not harmful. In addition product is unlikely to cause any discomfort or irritation.

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.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS number	Proportion
Triasulfuron	82097-50-5	75 % w/v
Inert		To 100 % w/w

SECTION 4 – FIRST AID MEASURES

Swallowed	Rinse mouth and then drink plenty of water. If vomiting occurs, give more water to drink to assist dilution. Do not give anything by mouth to a semi-conscious or unconscious person.
Eye	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice if irritation develops or persists.
Skin	Wash affected areas thoroughly with soap and water. Remove contaminated clothing and launder before re-use.
Inhaled	Over-exposure by inhalation is improbable. Check for other causes of observed symptoms and seek medical advice.

Advice to Doctor:

Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

Fire and Explosion Hazards:	There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids. This product, if scattered, may form flammable or explosive dust clouds in air. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.
Dangerous decomposition or Combustion Products	If involved in a major fire, could evolve oxides of carbon, nitrogen or sulphur.
Extinguishing Media:	Preferred extinguishing media are carbon dioxide, dry chemical, foam, water fog.
Fire Fighting:	When fighting fires involving significant quantities of this product, wear a splash suit complete with self contained breathing apparatus. Do not scatter spilled material with high pressure water jets.
Flash point:	Not flammable.
Upper Flammability Limit:	No data.
Lower Flammability Limit:	No data.
Autoignition temperature:	No data.
Flammability Class:	No data.

SECTION 6 – ACCIDENTAL RELEASE MEASURES**Spills & Disposal**

Recover the product by sweeping up or vacuuming without raising dust. Collect spilled material and waste in sealable open-top type containers for disposal.

Personal Protection

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

SECTION 7 – HANDLING AND STORAGE

Handling

Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage

Make sure that containers of this product are kept tightly closed. Keep containers of this product in a well ventilated area. Make sure that the product does not come into contact with incompatible materials listed in Section 10. Check packaging – there may be further storage instructions on the label.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

The following Australian Standards will provide general advice regarding safety clothing and equipment. Respiratory equipment: AS/NZS 1715, Protective Gloves: AS 2161, Industrial Clothing: AS2919, Industrial Eye Protection: AS1336 and AS/NZS 1337, Occupational Protective Footwear: AS/NZS 2210.

Exposure Limits:

TWA (mg/m³)

STEL (mg/m³)

Exposure limits have not been established by NOHSC for any of the significant ingredients in this product. The ADI for Triasulfuron 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 from Australian ADI list, Dec 2002.

Ventilation: No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that dusts are minimised.

Eye Protection: Eye protection is not normally necessary when this product is being used. However, if in doubt, wear suitable protective glasses or goggles.

Skin Protection:

The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when handling this product.

Protective Material Types: There is no specific recommendation for any particular protective material type.

Respirator: If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable Dust Mask.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form:	Granules
Colour:	Off white
Odour:	Mild odour
Boiling point (?C):	Not available
Vapour Pressure:	2 x 10 ⁻³ mPa (25°C for triasulfuron)
Flashpoint:	Not available
Flammability:	Non combustible material

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: 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 30°C. Containers should be kept dry. Protect this product from light.

Incompatibilities: strong oxidising 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.

Polymerisation: This product is unlikely to undergo polymerisation processes.

SECTION 11 – TOXICOLOGICAL INFORMATION

Inhalation:	Not a likely route of exposure when handling the concentrate. May cause irritation to mucous membranes.
Ingestion:	Low toxicity. However, swallowing large amounts of concentrate may cause nausea and vomiting.
Skin:	May irritate the skin.
Eye:	The concentrate may cause irritation of the eyes.
Chronic Effects:	Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.
Acute Toxicity:	Acute oral LD ₅₀ for rat: >5000 mg/kg Acute dermal LD ₅₀ for rabbit: >2000 mg/kg Acute inhalation LD ₅₀ for rats (4 hours): >5.2 mg/L Eye Irritation: Mild eye irritant Skin Irritation: Mild skin irritant Skin Sensitisation: Product is not a skin sensitiser.
Other Information:	The Australian Acceptable Daily Intake (ADI) for triasulfuron for a human is 0.005 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.5 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing, 'ADI List', TGA, June 2006)

SECTION 12 – ECOLOGICAL INFORMATION

Effects on Birds:	Triasulfuron has very low avian toxicity. The oral LD ₅₀ value for quail and ducks is greater than 2150 mg/kg.
Effects on Aquatic Organisms	The chemical has very low toxicity to aquatic organisms. 96-hour LC ₅₀ values are greater than 100 mg/l in rainbow trout, carp, catfish, sheepshead minnow and bluegill sunfish. 96 hour toxicity tests with the freshwater invertebrate <i>Daphnia magna</i> resulted in a LC ₅₀ of greater than 100 mg/l.
Effects on Other Animals	Triasulfuron has very low acute toxicity to honey bees with a topical LD ₅₀ of greater than 100 µg/bee. The LC ₅₀ for earthworms is greater than 1,000 mg/kg soil (14 day). The EC ₅₀ (5-14day) for Algae are as follows: for <i>Selenastrum</i> 0.035, for <i>Scenedesmus</i> 0.77, for <i>Anabaena</i> 1.7 and for <i>Navicula</i> >100mg/L
Environmental fate:	

Animals: In animals, mainly excreted in the urine in unchanged form. DT₅₀ in forage is about 3 days. In straw and grain, no residues were detectable at harvest time. Soil/environment: The degradation behavior in soil is determined by the soil type, pH and especially temperature and moisture content. Field studies with silty loam, clay loam and sandy loam showed a median DT₅₀ of 19 days, varying with soil type.

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 Code: This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

SECTION 15 – REGULATORY INFORMATION

AICS: All of the significant ingredients in this formulation are to be found in the public AICS Database.

SECTION 16 – OTHER INFORMATION

This MSDS contains only safety-related information. For other data see product literature.

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