

## MATERIAL SAFETY DATA SHEET

### SECTION 1 – IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

**Product Name:** Kenso Agcare Ken-Chlor 750  
**Water Dispersible Granule Herbicide**

**Product Type:** Group B Herbicide

**Company Name:** Kenso Corporation (M) Sdn Bhd

**Address:** Unit 3C, 59, Oxford Street, Bulimba Queensland 4171

**Telephone Number:** (07) 3217 9788

**Facsimile Number:** (07) 3217 9733

**Emergency Telephone Number:** 000 (Police or Fire Brigade)  
**13 11 26 (Poisons Information Centre)**

**Use:** For the control of Annual (Wimmera) Ryegrass and certain broadleaf weeds in winter cereal crops.

### SECTION 2 – HAZARDS IDENTIFICATION

**Hazard Classification** Not Classified as Hazardous According to the Criteria of the NOHSC

#### Emergency Overview

**Physical Description & colour:** White to off-white granulated solid.

**Odour:** No odour.

**Major Health Hazards:** Toxicity described in animals from the administration of a single dose of Chlorsulfuron include lung changes, weakness and other nonspecific effects. Repeated dosing caused decreased weight gain, and haematological and clinical chemical changes. Long-term dosing resulted in decreased body weight gain, and slight haematological changes.

#### Potential Health Effects

**Health Effects** No LD<sub>50</sub> information is available for this product.

#### Acute:

**Swallowed:** Very low toxicity by ingestion.

**Eye:** Irritation (rabbit): Administration of 10mg to rabbit's eye produced very mild temporary conjunctival irritation and slight corneal cloudiness. All effects reversed in 4 days.

**Skin:** Slightly to moderately toxic by contact. Not a primary skin irritant, or a sensitiser.

**Inhaled:** May irritate the throat but no data available.

**Others:** No data available to confidently predict the effects of overexposure to humans, however based on animal studies, overexposure by inhalation, ingestion, or skin or eye contact may initially include eye irritation with discomfort, tearing, or blurring of vision, or irritation of the upper respiratory passages.

**Chronic:** Chlorsulfuron

Administration of 0, 100, 500 and 2500 ppm chlorsulfuron to male and female young adult dogs for 6 months produced a no-observable-effect level (NOEL) of 2,500 ppm in the diet. No compound related changes in nutritional, clinical, biochemical, gross, or histopathological observations were made. Administrations of 0, 100, 200 and 2500 ppm chlorsulfuron to male and female weaning rats for 2 years produced a NOEL of 100 ppm in the diet based on mild to moderate reduction in mean body weights and weight gains in male rats from the higher dose groups.

Oncogenicity studies conducted with male and female mice by dietary administration of 0, 100, 500 and 5,000 ppm chlorsulfuron for 2 years showed no compound-related behavioural, clinical haematological, gross pathological, or histological abnormalities. Chlorsulfuron was not oncogenic at any level. The overall NOEL was 500 ppm as a body weight reduction occurred in the 5,000 ppm level. The dietary presence of chlorsulfuron at 500ppm had no adverse effect on the reproduction or lactation performance of young adult rats (3 generation, 2 litters per generation). Not teratogenic rats at 2,500 ppm or up to 75mg/kg in rabbits. Not mutagenic in Ames bacterial assay. Chinese Hamster Ovary mammalian cell assay, rat dominants lethal assay, in vitro cytogenetic assay, or DNA repair assay.

### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS number	Proportion
Chlorsulfuron	64902-72-3	75 % w/w
Inert ingredients	secret	To 100 % w/w

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

### SECTION 4 – FIRST AID MEASURES

Swallowed:	If swallowed; immediately give 2 glasses of water and induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention.
Skin:	Flush in water after excessive contact.
Eyes:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention.
Inhaled:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

#### Advice to Doctor

No specific requirements. Treat symptomatically.

### SECTION 5 – FIRE FIGHTING MEASURES

#### Fire/Explosion Hazards:

Stable at normal temperatures and storage conditions. Decomposes with heat. Polymerization will not occur. Flammable limit in Air, % by volume; LEL 0.090 g/L.

Extinguishing media are water spray and dry chemical. Wear self-contained breathing apparatus. Use water spray. Cool tanker/container with water spray. If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the contamination hazard.

### 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**

Avoid skin and eye contact. Avoid inhaling the vapour, or spray mist. After use and before eating, drinking, or smoking, wash hands, arms and face thoroughly with soap and water.

**SECTION 7 – HANDLING AND STORAGE****Storage and Transport**

Store in the closed, original container in a dry, well ventilated area, as cool as possible out of direct sunlight. Keep from contact with fertilisers, fungicides and seeds.

**Spills and Disposal**

Review FIRE AND EXPLOSION HAZARDS and SAFETY PRECAUTIONS before proceeding with the cleanup. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during cleanup. Dyke spill prevent liquid from entering sewers, waterways, or low areas. Shovel or sweep up, DO NOT flush with water. If spill area is on ground near trees or other valuable plants remove the top 50mm of soil after initial cleanup. Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State and local regulations.

**SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION****Exposure Limits**

No exposure standards have been established for this product by Worksafe Australia, however, the TWA exposure standard for dusts not otherwise specified is 10 mg/m<sup>3</sup>.

**Respiratory Protection**

Do not inhale spray mist. Wear a class P1 dust mask if dusts are present.

**Personal Protective Equipment**

It is good practice to wear suitable personal protective equipment (PPE). When opening the container, preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, nitrile or elbow-length PVC gloves and face shield or goggles and disposable dust mask.

**Engineering Controls**

Handle in well ventilated areas, generally natural ventilation is adequate.

**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 contaminated clothing and safety equipment.

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

<b>Form:</b>	powder granules
<b>Colour:</b>	off-white tan
<b>Melting point (°C):</b>	Not applicable
<b>Vapour Pressure:</b>	Not applicable
<b>Specific Density:</b>	0.59 ± 0.01
<b>Flashpoint:</b>	Non flammable
<b>Flammability Limits:</b>	Non flammable

**SECTION 10 – STABILITY AND REACTIVITY**

<b>Stability:</b>	Hydrolyses at pH <7.
<b>Hazardous Polymerization:</b>	Hazardous polymerisation is not possible.
<b>Hazardous Reaction:</b>	Keep away from strong oxidising agents.

**SECTION 11 – TOXICOLOGICAL INFORMATION****Toxicology Information**

No harmful effects are expected if the precautions on the label and this MSDS are followed.

<b>Inhalation:</b>	May cause irritation to the respiratory tract.
<b>Ingestion:</b>	Possible symptoms of exposure include: nausea, vomiting and headache.
<b>Skin:</b>	May cause irritation if contact is prolonged.
<b>Eye:</b>	Prolong contact may cause some discomfort.
<b>Chronic Effects:</b>	No information available, no chronic effects expected.
<b>Acute Toxicity – Oral:</b>	LD <sub>50</sub> (male rats) 5,545 mg/kg for chlorsulfuron
<b>Acute Toxicity – Inhalation:</b>	LC <sub>50</sub> (rat) (4hr) >5.9 mg/l for chlorsulfuron

**Other Information:**

The Australian Acceptable Daily Intake (ADI) for chlorsulfuron for a human is 0.05 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 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, August 2003).

**SECTION 12 – ECOLOGICAL INFORMATION****Other Precautions:**

Do not spray in high winds. Do not contaminate dams, waterways or sewers with this product.

**Persistence / Degradability:**

Slowly hydrolyses in water at neutral pH (50% hydrolysis in 4-8 weeks at 20°C), more rapid hydrolysis occurs in acid solution.

**Acute Toxicity - Fish**

Not toxic to fish.

LC<sub>50</sub> (96 hr) for rainbow trout is >250 mg/l for chlorsulfuron

**Acute Toxicity - Daphnia**

LC<sub>50</sub> (48 hr) for daphnia is 370 mg/l for chlorsulfuron.

**Acute Toxicity – Other Organisms**

The following data is for the active ingredient, chlorsulfuron.

Birds: Not toxic to birds. LD<sub>50</sub> for mallard ducks and bobwhite quail is >5000 mg/kg

**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**

<b>U.N. Number:</b>	None Allocated
<b>Proper Shipping Name:</b>	None Allocated
<b>DG Class:</b>	None Allocated
<b>Hazchem Code:</b>	None Allocated
<b>Packing Group:</b>	None Allocated
<b>Storage and Transport:</b>	Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

### SECTION 15 – REGULATORY INFORMATION

<b>Safety Phrase:</b>	S13 Keep away from food, drink and animal feeding stuffs. S2 Keep out of reach of children.
<b>Poisons Schedule:</b>	S5
<b>Packaging &amp; Labelling</b>	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
<b>AICS (Australia):</b>	All of the components in this product are listed on the Australian Inventory of Chemical Substances.

### SECTION 16 – OTHER INFORMATION

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

**Acronyms:**

<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail
<b>AICS</b>	Australian Inventory of Chemical Substances
<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>Hazchem Number</b>	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
<b>IARC</b>	International Agency for Research on Cancer
<b>NOHSC</b>	National Occupational Health and Safety Commission
<b>NOS</b>	Not otherwise specified
<b>NTP</b>	National Toxicology Program (USA)
<b>R-Phrase</b>	Risk Phrase
<b>SUSDP</b>	Standard for the Uniform Scheduling of Drugs & Poisons
<b>UN Number</b>	United Nations Number

**CONTACT POINT:**

Police and Fire Brigade:	Dial	000
<b>National Poisons Information Centre:</b>	<b>Dial</b>	<b>13 11 26 (from anywhere in Australia)</b>
For 24 hour emergency response:	Dial	0439 933 556
		Ask for Murray Goodlich