

## SAFETY DATA SHEET

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

<b>Product Name:</b>	<b>Kenso Agcare Captan 800 WG Fungicide</b>
<b>Product Type:</b>	Group M4 Fungicide
<b>Company Name:</b>	Kenso Corporation (M) Sdn Bhd
<b>Address:</b>	Level 1, 98 Commercial Road, Teneriffe QLD 4005
<b>Telephone Number:</b>	(07) 3216 1188
<b>Emergency Telephone Number:</b>	000 (Police or Fire Brigade) <b>13 11 26 (Poisons Information Centre)</b>
<b>Use:</b>	For the control of certain diseases in a range of fruit crops, turf & ornamentals 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.



**GHS Signal Word:** **DANGER**

**Hazard statements:**  
H317: May cause an allergic skin reaction.  
H318: Causes serious eye damage.  
H331: Toxic if inhaled.  
H351: Suspected of causing cancer.  
H400: Very toxic to aquatic life.

**Prevention:**  
P201: Obtain special instructions before use.  
P202: Do not handle until all safety precautions have been read and understood.  
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.  
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:**  
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.  
P308 + P313: IF exposed or concerned: Get medical advice/attention.

	P310: Immediately call a POISON CENTER/doctor/physician.
	P321: Specific treatment (see FIRST AID on this label).
	P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.
	P362 + P364: Take off contaminated clothing and wash it before reuse.
	P391: Collect spillage.
<b>Storage:</b>	P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
	P405: Store locked up.
<b>Disposal:</b>	P501: Dispose of contents/container as specified on the registered label.
<b>SUSMP Classification:</b>	S6
<b>ADG Classification:</b>	N/A
<b>UN Number:</b>	N/A

### Emergency Overview

**Physical Description & colour:** Pale beige granule

**Odour:** Faint characteristic

### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS number	Proportion
Captan	133-06-2	80%
Inert ingredients	secret	to 100%

### SECTION 4 – FIRST AID MEASURES

<b>Ingestion</b>	If swallowed, DO NOT induce vomiting. Seek medical advice or contact Poisons Information Centre (Ph 13 11 26). Make every effort to prevent vomit from entering the lungs by careful placement of the patient.
<b>Eye contact</b>	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek immediate medical attention.
<b>Skin contact</b>	Remove contaminated clothing and launder before use. Wash affected areas or skin thoroughly with soap and water. Seek medical advice if irritation develops.
<b>Inhalation</b>	Remove to fresh air until recovered. If symptoms persist, seek medical advice.

**Advice to Doctor:**

Treat symptomatically.

## SECTION 5 – FIRE FIGHTING MEASURES

### Fire/Explosion Hazard

### Dangerous Decomposition or Combustion Products

### Thermal Decomposition

There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. This product, if scattered, may form flammable or explosive dust clouds in air.

### Poisons Information Centre: 13 1126 from anywhere in Australia

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

### Extinguishing Media

Water fog, foam, carbon dioxide or dry chemical.

### Fire Fighting

If a significant quantity of this product is involved in a fire, call the fire brigade. There is little danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is liquid-tight chemical protective clothing and breathing apparatus. If involved in a fire, it will emit oxides of nitrogen and carbon, hydrogen chloride and possibly thiophosgene.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

### Spills & Disposal

In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including eye/face protection.

Product spill: Sweep granules and shovel or collect recoverable product into labeled containers for recycling or salvage, and dispose of promptly.

Wash the spill area with detergent and water. Launder protective clothing before storage or re-use.

## 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

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/NZS2210**.

<b>SWA Exposure Limits</b>	<b>TWA (mg/m<sup>3</sup>)</b>	<b>STEL (mg/m<sup>3</sup>)</b>
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Captan	0.5	not set
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The ADI for Captan is set at 0.1mg/kg/day. The corresponding NOAEL is set at 10mg/kg/day.

*\*ADI= Acceptable Daily Intake; NOAEL: No Observable Adverse Effect Level. Data adopted from Australia ADI List, March 2021.*

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

### **Engineering Controls**

Handle in well ventilated areas. Controls should be sufficient so that applicable occupational exposure limits are not exceeded.

### **Personal Protective Equipment**

When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Form:</b>	Granule
<b>Colour:</b>	Pale beige
<b>Odour:</b>	Faint characteristic
<b>Vapour Pressure:</b>	<1.3 mPa @ 25°C for captan
<b>Melting Point:</b>	175 - 178°C for captan
<b>Solubility:</b>	Dispersible

## SECTION 10 – STABILITY AND REACTIVITY

### **Chemical Stability**

Stable under normal conditions. Hydrolyses at pH >7.

### **Hazardous Reaction**

Keep away from strong oxidising agents.

### **Hazardous Polymerization**

Hazardous polymerisation is not possible.

### **Conditions to Avoid**

Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

## SECTION 11 – TOXICOLOGICAL INFORMATION

### Acute Toxicity – Oral

LD<sub>50</sub> (rat) 9,000 mg/kg for captan

### Acute Toxicity – Dermal

LD<sub>50</sub> (rabbit) >4,500 mg/kg for captan

### Acute Toxicity – Inhalation

LC<sub>50</sub> (rat) 0.668 mg/l

## Potential Health Effects

### Health Effects

#### Acute:

- Inhalation:** Breathing in high concentrations of dusts or aerosols of this material may cause headache, nausea, dizziness and weakness.
- Skin contact:** Prolonged contact with the concentrate may result in absorption of captan in harmful amounts. May cause sensitisation by prolonged skin contact. Repeated or prolonged contact with the concentrate may lead to irritant contact dermatitis.
- Eye contact:** The concentrate may cause irritation of the eyes.
- Ingestion:** Possible symptoms of exposure include: nausea, vomiting and gastrointestinal discomfort and diarrhoea.
- Carcinogenicity:** Worksafe Australia has classified captan in the occupational environment as a Carcinogen Category 3 substance. This means that the substance is not classifiable as to carcinogenicity to humans. IARC (International Agency for Research on Cancer) has determined that the mechanism in rats and mice is unlikely to occur in humans; hence captan has been classified by IARC as Cat 3, not classifiable as to carcinogenicity to humans.  
The US EPA considers captan not likely to be a human carcinogen at levels that do not cause cytotoxicity and regenerative cell hyperplasia, therefore not likely to be a human carcinogen or pose cancer risks of concern when used in accordance with approved product labels.

### **Chronic toxicity**

Rats fed up to 750 mg/kg/day of 80% Captan for 4 weeks had decreased food intake and body weights. No deaths occurred in pigs given as much as 420 to 4000 mg/kg/day in the diet for 12 to 25 weeks, however, cattle given six doses of 250 mg/kg experienced varied toxic effects, including death.

### **Reproductive effects**

Pregnant mice exposed by inhalation to high doses of Captan for 4 hours a day during days 6 to 15 of gestation showed significant mortality or weight loss. Fetal mortality accompanied these effects. Mice fed 50 mg/kg/day over three generations reproduced normally. Captan is unlikely to cause reproductive effects in humans at usual levels of exposure.

### **Teratogenic effects**

Teratogenicity studies with rats, rabbits, hamsters, and dogs have given both negative and positive results. However, the weight of evidence suggests that Captan does not produce birth defects.

### **Mutagenic effects**

Although Captan was mutagenic in some laboratory tests on isolated tissue cultures, the majority of evidence indicates that Captan is nonmutagenic.

### **Carcinogenic effects**

There is strong evidence that Captan causes cancer in female mice and in male rats at high doses. In addition, Captan is chemically similar to two other pesticides, Folpet and Captafol, that have been shown to produce cancer in test animals. Tumours were associated with the gastrointestinal tract and, to a lesser degree, with the kidneys. Tumours appeared in the test animals at doses of about 300 mg/kg/day.

### **Organ toxicity**

Most organ-specific effects are found in the kidneys of rats at and above doses of 100 mg/kg/day.

### **Fate in humans and animals**

Studies in several animal species have shown that Captan is rapidly absorbed from the gastrointestinal tract and is rapidly metabolized. Residues are excreted primarily in the urine. Rats given Captan orally excreted a third in the faeces and half in the urine within 24 hours. A cow fed small amounts in its diet for 4 days had no Captan in the milk at a 0.01 mg/L detection limit, nor could any be detected in the urine at a 0.1 mg/L detection limit.

There is no data to hand indicating any particular target organs.

Captan is classed by SWA as a potential sensitiser by skin contact.

## **SECTION 12 – ECOLOGICAL INFORMATION**

### **Known Harmful Effects on the Environment**

The active ingredient captan is highly toxic to fish and aquatic organisms.

### **Environ. Protection**

Marine pollutant.

Spray drift should be avoided, read the label for more information.

### **Acute Toxicity – Fish**

The following is data for the active ingredient, captan.

LC<sub>50</sub> (96 hr) for bluegill sunfish is 0.072 mg/l.

LC<sub>50</sub> (96 hr) for brook trout is 0.034 mg/l.

### **Acute Toxicity - Daphnia**

LC<sub>50</sub> (48 hr) for daphnia is 7 - 10 mg/l for captan.

### **Acute Toxicity - Other Organisms**

Bees: Not toxic to bees. LD<sub>50</sub> 91 µg/bee.

Birds: Not toxic to birds. LD<sub>50</sub> for mallard ducks and pheasants is >5,000 mg/kg

LD<sub>50</sub> for bobwhite quail is 2,000 - 4,000 mg/kg

### **Persistence /Degradability**

Captan has a low persistence in soil, with a half-life of 1 to 10 days in most soil environments.

Captan was not detected in field studies of its mobility at application rates of up to 42 kg active ingredient per hectare.

### **Other Precautions**

Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.

### 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>Storage and Transport</b>	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.
<b>UN Number (Sea Transport):</b>	3077
<b>IMO Class/Packing Group:</b>	Class 9; Packing Group III
<b>IMO Marine Pollutant:</b>	Marine Pollutant
<b>IMO Proper Shipping Name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains Captan)
<b>Hazchem code:</b>	None allocated

### SECTION 15 – REGULATORY INFORMATION

<b>SUSMP Classification</b>	S6
<b>Packaging &amp; Labelling</b>	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:**

<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail
<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>SUSMP</b>	Standard for the Uniform Scheduling of Medicines & Poisons
<b>UN Number</b>	United Nations Number
<b>GHS</b>	Globally Harmonised System

**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