

MATERIAL SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product Name: Kenso Agcare Metoken 720 Herbicide
Product Type: Group K 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 certain annual grasses and broadleaf weeds in certain crops.

SECTION 2 – HAZARDS IDENTIFICATION

Classified as hazardous according to criteria of NOHSC

Risk Phrases: R43 May cause sensitization by skin contact.
Safety Phrases: S28 After contact with skin, wash immediately with plenty of soap and water.
SUSDP Classification: S5
ADG Classification: None allocated. Not a Dangerous Good.
UN Number: None allocated

Emergency Overview

Physical Description & colour: Light to dark brown liquid.

Odour: aromatic odour.

Major Health Hazards: Signs of human intoxication from Metolachlor exposure include abdominal cramps, anemia, shortness of breath, dark urine, convulsions, diarrhea, jaundice, weakness, nausea, sweating, and dizziness. Possible skin sensitiser.

Potential Health Effects

Health Effects

Acute:

Swallowed: Practically non-toxic.
Eye: Non-irritant
Skin: Non-irritant
Inhaled: Low toxicity.

Chronic:

Chronic toxicity and/or oncogenicity studies were conducted on metolachlor in rats, mice and dogs. Metolachlor technical has been extensively tested on laboratory mammals and in test tube systems. No evidence of mutagenic, teratogenic or reproductive effect was obtained. In two separate studies in mice, metolachlor technical did not induce tumors or other long-term toxic effects. No adverse effects were observed in two long-term studies in rats, except at very high doses, where a small number of females developed benign liver tumors. The observed oncogenic response reflects the metabolic overloading of the liver at the highest dose level administered which resulted in cytotoxicity.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS number	Proportion
Metolachlor	51218-45-2	72 % w/v
Emulsifier	secret	>10% w/v
Liquid hydrocarbon	64742-94-5	To 100 % w/v

SECTION 4 – FIRST AID MEASURES

Swallowed	If swallowed, and if more than 15 minutes from a hospital do not induce vomiting, Seek medical advice or contact Poisons Information Centre (Ph 13 11 26)
Eye	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open.
Skin	Remove contaminated clothing and launder before use. Wash affected areas or skin thoroughly with soap and water. Seek medical advice if irritation develops.
Inhaled	Remove to fresh air, keep warm and at rest until recovered.

Advice to Doctor:
Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

Fire/Explosion Hazard
Dangerous decomposition or Combustion Products
Thermal decomposition
Combustible liquid.

Extinguishing Media
Extinguish fire with foam, dry powder, carbon dioxide.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spills and Disposal

Ensure suitable personal protection (including respiratory protection) during removal of spillage. Contain spill and absorb with sand or other absorbent material. Do not allow to enter drains, sewers and watercourses. Collect in sealed open top container for disposal. Triple rinse containers, add rinsings to spray tanks and send containers for recycling or if not recycling, break, crush or puncture and bury empty containers in a local authority landfill or in accordance with local, state or federal regulation. Do not dispose of undiluted chemicals on site.

SECTION 7 – HANDLING AND STORAGE

Storage

Do not use or store near heat or naked flames. Store in the closed, original container in a well-ventilated area away from children, animals, food, feedstuffs, seed and fertilizers. Do not store for prolonged periods in direct sunlight.

This product is classified as a **C1 (Combustible Liquid)** for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to state regulations for storage and transport requirements.

Transport

Not considered hazardous by Australian Code for the Transport of Dangerous Goods by Road and Rail.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:

None established for formulated product

Ingredient	TLV ppm
Solvent	100

Engineering Controls:

Well ventilated

Personal Protection:

Avoid contact with eyes and skin. Do not inhale spray mist. When preparing spray solution, wear PVC/rubber apron or cotton overalls buttoned to the neck and wrist, elbow-length PVC gloves and goggles or face-shield. After use and before eating, drinking and smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face and contaminated clothing.

Flammability:

Combustible liquid C1

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form:	liquid
Colour:	light to dark brown
Odour:	aromatic odour
Boiling point (°C):	Not available
Vapour Pressure:	18 mmHg @ 38 °C
Flashpoint:	Not available
Flammability Limit:	Not available
Specific Density:	1.045 ± 0.01
Water Solubility	Forms emulsion

SECTION 10 – STABILITY AND REACTIVITY

Hazardous Polymerization

Hazardous polymerisation is not possible.

Materials to Avoid

Corrosive to mild steel, galvanised steel and zinc. Non corrosive to stainless steel, polyethylene and plastics. Do not mix, store or apply the product or spray solutions of the product in galvanised steel or unlined steel (except stainless steel) containers or spray tanks.

Hazardous Reaction

Avoid contact of the concentrate with strong alkalis and alkaline materials such as lime. Such contact may release isopropylamine vapour with a strong fish like odour, which is an irritant to eyes. Isopropylamine is moderately toxic, LD50 (oral, rat) is 820 mg/kg and a TLV of 5 ppm (TWA) has been set.

SECTION 11 – TOXICOLOGICAL INFORMATION

Toxicity Data:

Product
Acute oral LD₅₀ for rat: 2000 mg/kg
Acute dermal LD₅₀ for rat: 5000 mg/kg

Technical
Non-toxic to birds
Slightly toxic to fish LC₅₀ (96hr) for bluegill: 3.16 mg/L
Slightly toxic to bees

SECTION 12 – ECOLOGICAL INFORMATION

Acute Toxicity – Fish

The following is data for the active ingredient, metolachlor.
Not toxic to fish. LC₅₀ (96 hr) for rainbow trout is 3.9 mg/l.

Acute Toxicity – Daphnia

LC₅₀ (48hr) for daphnia is 25 mg/l.

Acute Toxicity – Algae

EC₅₀ for *Scenedesmus subspicatus* is 0.1 mg/l.

Acute Toxicity – Other Organisms

Birds: Not toxic to birds. LD₅₀ for mallard duck and bobwhite quail is >2150 mg/kg
Bees: Not toxic to bees. LD₅₀ (oral and contact) is >110 µg/bee.

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

U.N. Number	None Allocated
DG Class	None Allocated
Hazchem Code	None Allocated
Packing Group	None Allocated
Storage and Transport	Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

SECTION 15 – REGULATORY INFORMATION

Poisons Schedule	S5
Packaging & Labelling	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Hazard Category	Harmful, Irritant
AICS (Australia)	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.

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