

SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product Name:	Kenso Agcare Kendax 600 WG 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 Arrowhead, Dirty Dora and Star Fruit in aerially sown rice as per the directions for use table.

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:	WARNING
Hazard statement:	H317: May cause an allergic skin reaction. H411: Toxic to aquatic life with long lasting effects.
Prevention:	P261: Avoid breathing fumes, mists, vapours or spray. P272: Contaminated work clothing should not be allowed out of the workplace. P273: Avoid release to the environment. P280: Wear protective gloves, protective clothing and eye or face protection.
Response:	P363: Wash contaminated clothing before reuse. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P333 + P313: If skin irritation or rash occurs: Get medical advice. P391: Collect spillage.
Storage:	P403+P235: Store in a well-ventilated place. Keep cool.
Disposal:	P501: Dispose of contents and containers as specified on the registered label.
SUSMP Classification:	N/A
ADG Classification:	Not a dangerous good.
UN Number:	N/A

Emergency Overview

Physical Description & colour: Light tan granules.

Odour: Woody.

Major Health Hazards: Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing.

Potential Health Effects

Health Effects

Based on animal studies, liver or kidney may be potential targets of repeated and excessive overexposure. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are :-

Acute:

Swallowed: Very low toxicity by ingestion

Eye: May cause eye irritation with tearing, blurred vision or pain.

Skin: Slight to moderately toxic by absorption through skin.
Not a primary skin irritant or sensitiser.

Inhaled: Low toxicity through this route.
May irritate throat.

Chronic:

None available for formulated product.

Bensulfuron methyl:

Chronic dietary administration of bensulfuron methyl to rats, mice and dogs resulted in a similar toxicity profile. Chronic exposure of male rats at the high dose produced mild anaemia, which was not observed in female rats or in other species. Liver effects were observed in each of these species. In rats and mice, these effects included slight liver weight increases, enlarged hepatocytes and changes in appearance and staining properties of hepatocytes when prepared for histological examination. These changes were minimal to mild in severity, were more pronounced among males, were localised within the centrilobular liver region, and were considered to be associated with an adaptive response of the liver to an increased demand for compound metabolism and clearance. There were no clinical, chemical or histopathological indices of liver toxicity or dysfunction associated with these effects in rats or mice. Normal liver functions were not significantly compromised in this treatment group. In addition to the liver effects observed for rats and mice, chronic exposure of dogs resulted in clinical pathological and histopathological evidence of slight to minimal hepatotoxicity at the high dose. Normal liver functions were not significantly compromised in this treatment group. The non observable effect level (NOEL)

following chronic dietary administration were 750 ppm, 750 ppm and 2500 ppm for the dog, rat and mouse, respectively. Bensulfuron methyl was non-oncogenic by chronic dietary administration. Negative results in five of five tests for mutagenicity and genetic toxicity support this observation. There were no reproductive effects in rats from dietary administration; therefore, the NOEL was greater than 7,500 ppm, the highest dose tested. Bensulfuron methyl was non-teratogenic in the rat and rabbit. Foetotoxicity or developmental variations were observed at excessive maternal doses. The NOELs for these observations were 300mg/kg and 500 mg/kg for the rabbit and rat, respectively. Not mutagenic in the Ames bacterial assay and the Chinese Hamster ovary cell assay. Negative in the *in vivo* bone marrow cytogenetic assay, the DNA repair assay with rat liver cells, and the *in vitro* chromosome aberration test in human lymphocytes.

Other Health Effects Significant skin permeation, and systemic toxicity, after contact appears unlikely. Based on data from animal testing, high ingestion exposures may lead to abnormal liver function as detected by laboratory tests. Otherwise no acceptable information is available to confidently predict the effects of excessive human exposure to this compound

Carcinogenicity Information:

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS number	Proportion
Bensulfuron-methyl	83055-99-6	60%w/w
Inert ingredients	secret	to 100%w/w

SECTION 4 – FIRST AID MEASURES

Swallowed	Call poison control centre or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control centre or doctor. Do not give anything by mouth to an unconscious person.
Eye	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.
Skin	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.
Inhaled	No specific intervention is indicated, as the compound is not likely to be hazardous by inhalation. Consult a physician if necessary.

Advice to Doctor:

No specific requirements. Treat symptomatically

SECTION 5 – FIRE FIGHTING MEASURES

Fire/Explosion Hazard

Dangerous Decomposition or Combustion Products

Thermal Decomposition

Not a fire or explosion hazard. Like most organic powders or crystals, under severe dusting conditions, this material may form explosive mixtures in air. If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the contamination area.

Extinguishing Media

Water fog, foam, dry chemical, carbon dioxide.

Fire Fighting

Wear self-contained breathing apparatus. Use water spray, Runoff from fire control may be a pollution hazard.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spills & Disposal

Dike spill. Prevent material from entering sewers, waterways, or low areas.

Personal Protection

Review Fire Fighting Measures and Handling section before proceeding with clean-up. Use appropriate Personal Protective Equipment during clean-up. Avoid eye contact, repeated or prolonged skin contact and the inhalation of vapour. Wear overalls, safety glasses and impervious gloves.

Clean-up Methods

Shovel or sweep up.

Environmental Precautions

This product is a herbicide and spills can damage crops, pastures and desirable vegetation. Prevent from entering drains, waterways or sewers.

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

Bensulfuron-methyl

PEL (OSHA) : None Established

TLV (ACHIH) : None Established

AEL * (DuPont) : 10 mg/m³, 8 & 12 Hr. TWA, total dust.

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effects, such limits shall take precedence.

Engineering Controls

Use only with adequate ventilation. When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirement listed in Worker Protection Standard (WPS) for agricultural pesticides [40 CFR170.240 (d) (4-6)], the handler PPE requirement may be reduced or modified as specified in the WPS.

Personal Protective Equipment

Always follow label instructions when using this product. Some materials that are chemical resistant to this product are listed below. If you want more options follow the instructions for Category A on the EPA chemical resistance category selection chart. Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical resistant gloves made of any waterproof material such as polyethylene or polyvinylchloride, shoes plus socks and protective eye wear.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soils or water is coveralls, chemical resistant gloves made of any water proof material, shoes plus socks and protective eyewear.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form:	Granules
Colour:	Light tan
Odour:	Woody
Melting Point (°C):	Not available
Boiling Point (°C):	Not applicable
Bulk Density:	0.8 g/cm ³
Vapour Pressure:	Not applicable
Solubility	Dispersible

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability

Stable under normal temperatures and storage conditions.

Hazardous Reactions

None known.

Hazardous Polymerization

Polymerization will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

Reproductive Toxicity

Data indicates no reproductive effects.

Mutagenicity

Data indicates that Bensulfuron-methyl does not present a mutagenic risk.

Carcinogenicity

Data indicates that Bensulfuron-methyl is not carcinogenic.

Acute Toxicity – Oral

LD₅₀ (rat) >5000 mg/kg (very low toxicity)

Acute Toxicity – Dermal

LD₅₀ (rat) >2000 mg/kg (slight to moderate toxicity)

Acute Toxicity – Inhalation

LC₅₀ (rat) (4hr) >7.5 mg/l for technical Bensulfuron-methyl

Other Information

Animal data show development effects only at exposure levels producing other toxic effects in the adult animal. No-observed-Adverse-Effect-Level (NOAEL) for the development study was 300 mg/kg in rabbits. The NOAEL in rats for maternal and fetal toxicity was 1320 mg/kg. Tests have shown that Bensulfuron-methyl did not cause genetic damage in bacterial or mammalian cell cultures, or in animals.

SECTION 12 – ECOLOGICAL INFORMATION

Known Harmful Effects on the Environment

Not available.

Environ. Protection

Not available.

Acute Toxicity - Fish

LC₅₀ (96 hr) for Bluegill sunfish is >120 mg/l

LC₅₀ (96 hr) for Rainbow trout is >66 mg/l

Acute Toxicity – Other Organisms

LD₅₀ for Mallard Duck is >2510 mg/kg

LD₅₀ for Bobwhite Quail is >5620 ppm

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

UN Number: None allocated
Proper Shipping Name: None Allocated
ADG Class: None allocated. Not a dangerous good.
Hazchem Code: None allocated.
Packing Group: None allocated.

SECTION 15 – REGULATORY INFORMATION

SUSMP Classification None Allocated
Packaging & Labelling None Allocated
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 0439 933 556
Ask for Murray Goodlich