


SECTION 1 – IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product Name	Fiestar Non-Selective Herbicide
Company Name	Kenso Corporation (M) Sdn Bhd
Address	2 Bond Crescent, Forrest Hill, Auckland 0620 New Zealand
Telephone	0800 536 766
Hazardous Substance	
Emergency Telephone	0800 CHEMCALL (0800 243 622) (24 hours)
National Poisons Centre	0800 POISON (0800 764 766) (24 hours)
Use	For control of a wide range of grasses, broad-leaved weeds and clovers.

SECTION 2 – HAZARDS IDENTIFICATION

Hazard Pictograms	
GHS Signal Word	DANGER
Hazard Classification	Flam. Liquid 4, Acute oral toxicity Category 4, Acute dermal toxicity Category 4, Acute inhalation toxicity Category 4, Eye irritation Category 2, Reproductive toxicity Category 2, Specific target organ toxicity (repeated exposure) Category 1, Hazardous to the aquatic environment chronic Category 3, Hazardous to soil organisms, Hazardous to terrestrial vertebrates.
Hazard Statement	<p>H227: Combustible liquid.</p> <p>H302: Harmful if swallowed.</p> <p>H312: Harmful in contact with skin.</p> <p>H319: Causes serious eye irritation.</p> <p>H332: Harmful if inhaled.</p> <p>H361: Suspected of damaging fertility or the unborn child.</p> <p>H372: Causes damage to organs through prolonged or repeated exposure.</p> <p>H412: Harmful to aquatic life with long lasting effects.</p>
Prevention	<p>P102: Keep out of reach of children.</p> <p>P103: Read label before use.</p> <p>P201: Obtain special instructions before use.</p> <p>P202: Do not handle until all safety precautions have been ready and understood.</p> <p>P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.</p> <p>P260: Do not breathe dust/fume/gas/mist/vapours/spray.</p> <p>P264: Wash contacted areas thoroughly after handling.</p> <p>P270: Do not eat, drink or smoke when using this product.</p> <p>P271: Use only outdoors or in a well-ventilated area.</p> <p>P273: Avoid release to the environment.</p> <p>P280: Wear protective gloves/protective clothing/eye protection/face protection.</p>
Response	<p>P101: If medical advice is needed, have product container or label at hand.</p> <p>P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P302 + P352: IF ON SKIN: Wash with plenty of soap and water.</p> <p>P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P308 + P313: IF exposed or concerned: Get medical advice/attention.</p> <p>P312: Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P330: Rinse mouth.</p> <p>P337 + P313: If eye irritation persists: Get medical advice/attention.</p> <p>P362 + P364: Take off contaminated clothing and wash it before reuse.</p>
Storage	<p>P403: Store in a well-ventilated place.</p> <p>P405: Store locked up.</p>
Disposal	P501: Dispose of contents/container as specified on the registered label.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No	Proportion
Glufosinate-ammonium	77182-82-2	20% w/v
Propylene glycol monomethyl ether	107-98-2	<10% w/v
Inert ingredients	secret	To 100% w/v

SECTION 4 – FIRST AID MEASURES

Ingestion	If swallowed do NOT induce vomiting. For advice, contact the National Poisons Centre (0800 764 766). Seek medical assistance immediately.
Eye	Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance.
Skin	Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. If a large area is affected seek medical assistance.
Inhalation	Remove patient to fresh air. Lay down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.
Advice to Doctor	Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

Fire/Explosion Hazard	NA
HAZCHEM Code	NA
IER Guide No	NA
Extinguishing Media	Dry Chemical, water spray, carbon dioxide
Fire Fighting Instructions	During a fire, toxic fumes may be emitted. Wear self-contained breathing apparatus. Contain runoff.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions	For appropriate personal protective equipment (PPE), refer to section 8.
Spillage	Prevent the product or spilled material from entering drains or water bodies. Contain and absorb spills with inert material such as zeolite clay or sand and place in waste containers. Wash area with water and detergent and absorb with further inert material. Dispose of through a designated hazardous substances disposal facility or contact the local regional/district council for disposal information.
Environmental Precautions	Washings must be prevented from entering surface water drains or waterways.

SECTION 7 – HANDLING AND STORAGE

Storage	Keep out of reach of children. Store in original container, tightly closed, away from foodstuffs, medicines, animal remedies, seeds and fertilisers. Store in a cool, dry, well-ventilated place and protect from sunlight.
Handling	Avoid contact with skin and eyes and inhalation of concentrate or spray mist. When using, do not eat, drink or smoke. Wash face and hands before eating, drinking or smoking.
Handler Competence	Persons responsible for the storage, handling, mixing, applying or disposing of this product must be trained, experienced or supervised in accordance with requirements for class 6 and 9 substances of the Health and Safety at Work (Hazardous Substances) Regulations 2017 part 4.5 and the Hazardous Substances (Hazardous Property Controls) Notice 2017 Part 4 Subpart C.
Record Keeping	Tracking is not required.
Additional Requirements	All aspects of storage, handling, use, disposal and record keeping must be in accordance with NZS 8409:2021 'Management of Agrichemicals', and relevant local and regional council plans.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls	Control process conditions to avoid contact. Use only in well-ventilated areas.
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Personal Protection	If necessary, use local exhaust ventilation to keep airborne concentration below the exposure limits. When mixing, applying or when likely to have any exposure to concentrate, mixes or mists/vapours suitable chemical resistant clothing must be worn including; coveralls, face shield, respiratory protection (organic vapour minimum specification) gauntlet gloves and footwear/boots. After each use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. Wash PPE and contaminated clothing before reuse.
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SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Colour	Clear blue
Odour	Odourless
pH	6 - 8
Flash point (°C)	NA
Flammability Limits	NA
Miscibility	Soluble
Oxidising properties	Not oxidising
Explosive properties	Not explosive

SECTION 10 – STABILITY AND REACTIVITY

Stability	Stable under normal conditions. Do not store below 4 °C.
Incompatibility	None known
Decomposition	Combustion or thermal decomposition will evolve toxic and irritant vapours.
Dangerous Reactions	Ammonia. In a fire, oxides of carbon, nitrogen, phosphorus and sulphur may be emitted.

SECTION 11 – TOXICOLOGICAL INFORMATION

This section describes effects which could occur if this product is not handled in accordance with this data sheet.

The following information is presented in respect of the product:

Acute Toxicity (Product)	Acute Oral LD ₅₀ (rats): 1910-2170 mg/kg Acute Dermal LD ₅₀ (rats): 1380-1400 mg/kg Acute Inhalation LC ₅₀ (rats) (4hr): 3.22-4.31 mg/L
Eye Irritation	Slightly irritating (rabbits)
Skin Irritation	Moderately irritating (rabbits)
Sensitisation Effects	Not a sensitizer (guinea pigs)
Mutagenic Effects	None
Carcinogenic Effects	None
Reproductive Effects	None
Teratogenic (Birth) Effects	None
Systemic Effects	None

SECTION 12 – ECOTOXICITY INFORMATION

This section describes effects which could occur if this material is not handled in accordance with this data sheet.

The following information is presented in respect of the active ingredient:

Ecotoxic Effects	Acute toxicity to Fish LC ₅₀ (96 h) (rainbow trout) = 710 mg/L LC ₅₀ (96 h) (carp, bluegill sunfish, golden orfe) > 1000 mg/L Acute toxicity to Daphnia EC ₅₀ (48 h) (daphnia magna) = 560-1000 mg/L Acute toxicity to Algae LD ₅₀ (Scenedesmus subspicatus) ≥ 1000 mg/L LD ₅₀ (Scenedesmus capricornutum) = 37 mg/L Acute toxicity to Bird LC ₅₀ (8 d dietary) (japanese quail) > 5000 mg/kg
Other Information	Glufosinate-ammonium is practically non-toxic to birds, fish, honeybees, earthworms and beneficial insects. It is practically non-toxic to Daphnia, but

moderately toxic to sensitive aquatic species. It is expected to be slightly to moderately toxic to wild animals. DO NOT contaminate streams, rivers or waterways with the used containers.

Glufosinate-ammonium is very soluble in water and is hydrolytically and photolytically stable. It is rapidly degraded in surface levels of soils and in water. This product is considered to be readily biodegradable. The potential for groundwater contamination with glufosinate-ammonium is minimal. Glufosinate-ammonium does not accumulate in the fatty tissues of fish or other animals.

SECTION 13 – DISPOSAL CONSIDERATIONS

Product	Dispose of this product only by using according to the label, or at an approved local authority waste receival facility or other approved hazardous substances waste management facility.
Container	Ensure the container is empty. Triple rinse empty container and add rinsate to the spray tank. Recycle empty container through Agrecovery (0800 247 326, www.agrecovery.co.nz). Otherwise submit to an approved waste disposal/recycling facility. DO NOT reuse this container for any other purpose.

SECTION 14 – TRANSPORT INFORMATION

Dangerous Goods	
UN Number	NA
Proper Shipping Name	NA
Class	NA
Subsidiary Class	NA
Packaging Group	NA
Additional Information	NA
MTQ (Non-Commercial)	NA

SECTION 15 – REGULATORY INFORMATION

HSNO Approval No	HSR000152
ACVM Approval No	P008141

SECTION 16 – OTHER INFORMATION

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

Contact Points	
Police, Ambulance and Fire Service	111
National Poisons Information Centre	0800 POISON (0800 764 766)
Hazardous Substances Emergency	0800 Chemcall (0800 243 622)