SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product Name:	**Max-Out 540 Herbicide**
Company Name:	Kenso Corporation (M) Sdn Bhd
Address:	2 Bond Crescent, Forrest Hill, Auckland 0620 New Zealand
Telephone Number:	(09) 410 0861
Hazardous Substances Emergency Telephone Number:	**(24 Hours) 0800 243 622**
National Poisons Information Centre :	**0800 POISON (0800 764 766)**
Use:	A non-residual, non-selective herbicide for weed control prior to planting crops and pasture, prior to harvesting some crops and for general weed control in horticulture, agriculture, and forestry

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	**CAS number**	**Proportion**
Glyphosate Potassium Salt	1071-83-6	54 % w/v
Inert Ingredient	secret	<10% w/v
Water	7732-18-5	to 100% w/v

SECTION 3 – HAZARDS IDENTIFICATION

Hazard classification: 8.2B, 8.3A, 9.1B
Priority Identifier: KEEP OUT OF REACH OF CHILDREN
Secondary Identifiers: 8.2B = May cause severe skin burn.
8.3A = May cause eye irritation.
9.1B = Toxic to aquatic organisms.

SECTION 4 – FIRST AID MEASURES

Swallowed	Rinse mouth with water. Give plenty of water to drink. Do NOT induce vomiting. Seek immediate medical assistance.
Eye	Hold the eyes and flush immediately with plenty of water. Seek medical advice if irritation develops.
Skin	Remove contaminated clothing and wash affected area or skin with soap and water. Seek medical advice if irritation develops.
Inhaled	Remove to fresh air, keep warm and at rest. Give artificial respiration or oxygen if breathing is shallow or stopped. Get medical attention immediately.

Advice to Doctor
Treatment is symptomatic.

SECTION 5 – FIRE FIGHTING MEASURES

Fire/Explosion Hazards:
Dangerous decomposition or Combustion products

Thermal decomposition
Not a fire or explosion hazard

Hazardous decomposition products
None known

Hazardous reactions
DO NOT mix, store or apply the product or spray solutions of the product in galvanized steel or unlined steel (except stainless steel) containers or spray tanks. The product or spray solutions of the product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture that can flash or explode if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source. Spray solutions of the product should be mixed, stored and applied only in stainless steel, aluminium, fiberglass, plastic and plastic-lined steel containers.

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

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 regulation. Do not dispose of undiluted chemicals on site.

SECTION 7 – HANDLING AND STORAGE

Storage:
Keep out of reach of children. Store in the original, tightly closed container, in a secure area away from foodstuffs.

Handling and Use: Keep out of reach of children. Avoid contact with eyes and skin. Avoid inhalation of spray mist. When mixing or applying, wear protective clothing as described in section 8. Do not eat, drink or smoke while using. Wash hands and face after use. Wash protective clothing after use. This product should only be mixed, contained in or sprayed by, equipment made from stainless steel, fibreglass, plastic, aluminium, brass or copper. A highly flammable gas (hydrogen) may be formed from the contact of this product with galvanised or unlined steel. All spray equipment, including pumps, spray tanks, lines, nozzles, and landing gear (aircraft) should be thoroughly washed with water after each day of spraying.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:
None established for formulated product or its components

Engineering Controls
Well ventilated

Personal Protection
Avoid contact with eyes and skin. Do not inhale spray mist. When preparing spray solution, wear chemical resistant coveralls , elbow-length PVC or Nitrile gloves and goggles or face-shield. If inhalation of mists or vapours is likely wear respiratory protection to a minimum Organic Vapour protection level. 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.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Colour:	Clear blue liquid
Odour:	Slight odour
Boiling point (°C):	Not applicable
Vapour Pressure:	Not applicable
Specific Density:	1.35 $\pm$ 0.01
Flashpoint:	Non flammable
Flammability Limits:	Non flammable
Solubility in Water:	Completely soluble

SECTION 10 – STABILITY AND REACTIVITY

Stability
Stable under normal conditions of handling and storage

Hazardous decomposition
Thermal decomposition that could occur if involved in a fire fuelled by other flammable materials: Hazardous products of combustion: see section 5.

Materials to avoid/Reactivity
Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that cold explode if ignited.

SECTION 11 – TOXICOLOGICAL INFORMATION

Toxicity Data:

Acute oral LD_{50} for rats: >5000 mg/kg body weight
Acute dermal LD_{50} for rabbits: >5000 mg/kg body weight
Acute Inhalation LC_{50} (4hr) for rats (aerosol): >1.20 mg/L

Skin irritation:
Rabbit, 3 animals, OECD 404 test: Days to heal: 14

Eye irritation:
Rabbit, 3 animals, OECD 405 test: Days to heal: 3

Skin sensitization:
Guinea pig, Buehler test: Positive incidence: 0 %

Mutagenicity:
In vitro and in vivo mutagenicity test(s): Not mutagenic.

Chronic effects/carcinogenicity:

Mouse, oral, 24 months:	NOAEL toxicity: ~ 5,000 mg/kg diet
	Target organs/systems: liver
	Other effects: decrease of body weight gain, histopathologic effects
	NOEL tumour: > 30,000 mg/kg diet
	Tumours: none

Rat, oral, 24 months:	NOAEL toxicity: ~ 8,000 mg/kg diet Target organs/systems: eyes Other effects: decrease of body weight gain, histopathologic effects NOEL tumour: > 20,000 mg/kg diet Tumours: none

SECTION 12 – ECOLOGICAL INFORMATION

Known Harmful Effects on the Environment
Harmful to fish and other aquatic organisms (mainly due to the surfactant).

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

Environmental Protection
Glyphosate is a non-selective contact herbicide. Spray drift can cause damage.

Persistence / Degradability
Adsorption studies indicate that glyphosate has very low mobility. Average field half life of glyphosate is 47 days.

Acute Toxicity – Fish
The following is data for a similar product.
LC_{50} (96 hr) for rainbow trout is 3.13 mg/l.

Acute Toxicity – Invertebrates
The following is data for a similar product.
EC_{50} (48 hr) for Daphnia magna is 8.0 mg/l.

Acute Toxicity – Other Organisms
The following data is for the active ingredient, glyphosate.
Birds: Not toxic to birds. LD_{50} for bobwhite quail is >3850 mg/kg
Bees: Not toxic to bees. LD_{50} >100 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

UN Number (Land Transport): 3082, Class 9, Packaging Group III

Sea IMDG-Code: None allocated

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains GLYPHOSATE, 54%)

SECTION 15 – REGULATORY INFORMATION

HSNO Approval Number: HSR100966
HSNO Controls (inc. Tracking and Record Keeping):
See http://www.epa.govt.nz for controls.

ACVM Registration: P8991
ACVM Controls:
See www.footsafety.govt.nz for registration conditions.

SECTION 16 – OTHER INFORMATION

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

CONTACT POINT:

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