

1. IDENTIFICATION

Product Identifier

Product Name **KELPIE® G-FOS 200 HERBICIDE**

Product Code(s) **A18919R**

Other Means of Identification

Proper shipping name: Not classified as a dangerous good

Recommended Use: Herbicide

Details of Manufacturer or Importer

SINOCHEM INTERNATIONAL AUSTRALIA PTY LTD
ABN: 74 160 164 616

Address Level 8 / 606 St Kilda Road
Melbourne, Victoria, 3004
Australia

Telephone +61 3 9520 8888

Emergency Phone Number Australia: 1800 033 111

2. HAZARD IDENTIFICATION

Classification of the Hazardous Chemical:	Acute Toxicity (oral)	Category 4
	Acute Toxicity (dermal)	Category 4
	Serious eye damage/eye irritation:	Category 2A
	Reproductive toxicity	Category 1B (fertility)
	Reproductive toxicity	Category 1B (unborn child)
	STOT (repeated exposure)	Category 2 (nervous system)

Signal Word: DANGER

Hazard Statement(s):

- H312 Harmful in contact with skin.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H302 Harmful if swallowed.
- H360 May damage fertility or the unborn child.
- H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statement(s):

- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read label before use.

Prevention:

P201 Obtain special instructions before use.

- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P264 Wash skin thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

General

P308+P313 IF exposed or concerned: Get medical advice/ attention.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

Inhalation

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Ingestion

P331 Do NOT induce vomiting.

Skin

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P363 Wash contaminated clothing before reuse.

Eye

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/container to an approved waste disposal plant.

Hazard Symbols:



3. COMPOSITION AND INFORMATION ON INGREDIENTS

Substance: Active Ingredient: Glufosinate-ammonium

Mixture:

Identity of Chemical Ingredient	CAS Number	Proportion (w/w)
Glufosinate-ammonium	77182-82-2	10-30 %
1-methoxy-2-propanol	107-98-2	1-15 %
Ingredients determined not to be hazardous	-	to 100 %

4. FIRST-AID MEASURES

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

Description of Necessary First Aid Measures:

Inhalation:	If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.
Eye contact:	If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. Seek medical attention.
Skin contact:	Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard. Seek medical attention.
Ingestion:	Do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

Symptoms Caused by Exposure: Symptoms: vomiting, diarrhea, abdominal cramps, tremors, hypotension (low blood pressure), muscular spasms, unconsciousness, coma, convulsions, respiratory failure, nausea. Symptoms may be delayed for several hours.

Medical Attention and Special Treatment: Treat symptomatically. No known specific antidote.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: **Small fires:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Large fires: Alcohol-resistant foam or water spray.

Do not use a solid water stream as it may scatter and spread fire.

Specific Hazards Arising from the Chemical:

This product may burn and/or decompose if exposed to fire. Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including carbon monoxide, carbon dioxide, ammonia and oxides of nitrogen.

Special Protective Equipment and Precautions for Fire Fighters:

Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location. This product should be prevented from entering drains and watercourses.

Hazchem Code:

Not allocated.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Environmental Precautions:

Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

Methods and Materials for Containment and Clean Up:

If possible, contain the spill. As a water-based product, if spilt on electrical equipment the product will cause short-circuits. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Wear appropriate personal protective equipment and clothing to prevent exposure.

7. HANDLING AND STORAGE

Precautions for Safe Handling:

Avoid inhalation of vapours and mists, and skin or eye contact. Use only in a well-ventilated area. Keep containers sealed when not in use. Prevent the build-up of mists or vapours in the work atmosphere. Maintain high standards of personal hygiene i.e., washing hands prior to eating, drinking, smoking or using toilet facilities. Avoid exposure. Do not handle until all safety precautions have been read and understood. It is recommended that pregnant or breastfeeding women should not handle this product unless adequate exposure protection can be assured at all times. Female personnel planning pregnancy should be made aware of the potential risks.

Conditions for Safe Storage, Including any Incompatibilities:

Store in a cool, dry, well-ventilated area, out of direct sunlight. Protect from freezing. Store in suitable, labelled containers. Keep containers

tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control Parameters:

Exposure Standards:

Chemical name	CAS Number	Exposure Limit	Value Type	Source
1-methoxy-2-propanol	107-98-2	369 mg/m ³ (100 ppm),	8hr TWA	HCIS, Safe Work Australia
		553 mg/m ³ (150 ppm)	15 min STEL	

Biological Monitoring:

No specific biological monitoring required.

Engineering Controls:

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Personal Protective Equipment:

The use of technical measures should always have priority over the use of personal protective equipment.

When selecting personal protective equipment, seek appropriate professional advice.

Personal protective equipment should comply with relevant national standards

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, SAFETY GOGGLES, GLOVES, RESPIRATOR.



Wash contaminated clothing and other protective equipment before storage or re-use.

Eye/face protection:

Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded.

Skin and body protection:	Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. Wear as appropriate: boots, overalls.
Hand protection:	Wear protective gloves. Always wash hands before smoking, eating, drinking or using the toilet. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The break-through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Respiratory protection:	If determined by a risk assessment an inhalation risk exists, wear an organic vapour/particulate respirator or an air supplied mask meeting the requirements of AS/NZS 1715 and AS/NZS 1716

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Colour:	Blue to bluish green
Odour:	Weakly pungent
Specific gravity:	1.1 (20°C)
pH:	6.0 ± 2 (5% aqueous solution)
Melting point / freezing point:	Not available
Boiling Point/Range (°C):	Not available
Flash point (°C):	Not available
Flammability (solid, gas):	Not applicable
Flammability limit in air:	Not available
Upper flammability or explosive limits:	Not available
Lower flammability or explosive limits:	Not available
Vapor pressure:	Not available
Vapor density:	Not available
Relative density:	1.096 g/cm ³ (20°C)
Water solubility:	Miscible in water
Solubility(ies):	Not available
Partition coefficient:	Not available
Auto-ignition temperature (°C):	Not available

Decomposition temperature:	Not available
Kinematic viscosity:	Not available
Dynamic viscosity:	Not available

10. STABILITY AND REACTIVITY

Reactivity:	Reacts with incompatible materials.
Chemical stability:	Stable under normal conditions of use.
Possibility of hazardous Reactions:	None under normal use conditions.
Conditions to avoid:	Avoid exposure to extremes of temperature, heat, flames and other sources of ignition.
Incompatible materials:	Strong oxidizing agents.
Hazardous decomposition products:	Thermal decomposition may result in the release of carbon monoxide, carbon dioxide, ammonia and oxides of nitrogen.

11. TOXICOLOGICAL INFORMATION

Health Effects from Likely Routes of Exposure:

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion:	May be harmful if swallowed. Ingestion of this product can cause irritation to the mouth, throat, oesophagus and stomach with symptoms of nausea, abdominal discomfort, vomiting and diarrhoea.												
Eye contact:	On eye contact this product will cause tearing, stinging, blurred vision, and redness.												
Skin contact:	Harmful in contact with skin. Product can be absorbed through skin with resultant harmful systemic effects. May be irritating to skin. The symptoms may include redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.												
Inhalation:	Harmful if inhaled. Inhalation of product vapours can cause irritation of the nose, throat and respiratory system.												
Acute toxicity:	No LD ₅₀ data available for the product. However, for the active constituent: <table> <tr> <td>Oral toxicity:</td> <td>>2000 mg/kg (rat)</td> </tr> <tr> <td>Dermal toxicity:</td> <td>>1900 mg/kg (rat)</td> </tr> <tr> <td>Inhalation toxicity:</td> <td>>3 mg/L (4h, rat)</td> </tr> <tr> <td>Skin irritation:</td> <td>Not an irritant (rabbit)</td> </tr> <tr> <td>Eye irritation:</td> <td>Irritant (Rabbit)</td> </tr> <tr> <td>Skin sensitisation:</td> <td>Not a sensitiser (Guinea pig)</td> </tr> </table>	Oral toxicity:	>2000 mg/kg (rat)	Dermal toxicity:	>1900 mg/kg (rat)	Inhalation toxicity:	>3 mg/L (4h, rat)	Skin irritation:	Not an irritant (rabbit)	Eye irritation:	Irritant (Rabbit)	Skin sensitisation:	Not a sensitiser (Guinea pig)
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Skin irritation:	Not an irritant (rabbit)												
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Skin sensitisation:	Not a sensitiser (Guinea pig)												
Chronic effects:													
Mutagenicity:	Mutagenicity tests revealed no genotoxic potential.												
Carcinogenicity:	In long-term studies in mice in which the substance was given by feed, a carcinogenic effect was not observed.												

Reproductive toxicity:	Glufosinate ammonium causes impairment of fertility in laboratory animals.
Specific Target Organ Toxicity (STOT) - single exposure:	The substance or mixture is not classified as specific target organ toxicant single exposure.
Specific Target Organ Toxicity (STOT) - repeated exposure:	Glufosinate ammonium : prolonged or repeated exposure may cause neurological disturbances.
Aspiration hazard:	No aspiration hazard expected.

12. ECOLOGICAL INFORMATION

Ecotoxicity:	Glufosinate-ammonium has a low acute toxicity to birds, fish, and other aquatic organisms.		
Toxicity to fish:	Bluegill sunfish	96 hr LC ₅₀ :	>79mg/L
	Rainbow trout	96 hr LC ₅₀ :	>42mg/L
	Carp	96 hr LC ₅₀ :	>80mg/L
Toxicity to daphnia and other aquatic invertebrates:	Daphnia magna	48 hr LC ₅₀ :	>100mg/L
Toxicity to bees:	Honey bees	(contact)	>600 µg/bee
Persistence/degradability:	This product is biodegradable. It will not accumulate in soil or water. Half-life, soil 8 days		
Mobility in Soil:	Glufosinate is rapidly degraded by microorganisms, leaving no residual activity.		
Bioaccumulative Potential:	Low bioaccumulation potential. Does not accumulate in organisms.		

13. DISPOSAL CONSIDERATIONS

Safe Handling and Disposal Methods: Do not contaminate ponds, waterways or ditches with chemical or used container.
Do not dispose of waste into sewer.
Where possible recycling is preferred to disposal or incineration.
If recycling is not practicable, dispose of in compliance with local regulations.

Disposal of Contaminated Packaging: Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

For refillable container, empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

14. TRANSPORT INFORMATION

ADG	Not classified as a dangerous good
IATA-DGR	Not classified as a dangerous good
IMDG-Code	Not classified as a dangerous good

15. REGULATORY INFORMATION

APVMA Product Registration Number:	70055
Poisons Schedule (SUSMP):	Schedule 5

16. OTHER INFORMATION

Date of preparation or review:

Full text of abbreviations and acronyms:

ADG	Australian Dangerous Goods Code
APVMA	Australian Pesticides & Veterinary Medicines Authority
EmS	Emergency Schedule
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
LD ₅₀	Lethal Dose to 50% of a test population (Median Lethal Dose)
LC ₅₀	Lethal Concentration to 50 % of a test population
MARPOL	International Convention for the Prevention of Pollution from Ships
NO(A)EL	No Observed (Adverse) Effect Level
n.o.s.	Not Otherwise Specified
OECD	Organization for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
SDS	Safety Data Sheet
STEL	Short Term Exposure Limit - the airborne concentration of a particular substance calculated as a time-weighted average over 15 minutes, which should not be exceeded at any time during a normal eight hour work day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
TWA	The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

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