

Safety Data Sheet

according to WHS Regulations

Printing date 31.08.2018

Revision: 30.08.2018

1 Identification

Product Name: 4FARMERS LINURON 450 HERBICIDE

Other Means of Identification: Mixture

Recommended Use of the Chemical and Restriction on Use: Agricultural herbicide

Details of Manufacturer or Importer:

4Farmers Australia Pty Ltd
70 McDowell Street
Welshpool WA 6106

Phone Number: +61 8 9356 3446

Emergency telephone number: National Poison Information Centre: 13 11 26

2 Hazard(s) Identification

Hazardous Nature:

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Not subject to the ADG Code when transported in Australia by Road or Rail in packages 500kg(L) or less; or IBCs (refer to SP AU01). However if transported by Air or Sea, this provision does not apply. Then the product is classed as Dangerous (Class 9 Environmentally Hazardous) by IATA and IMDG/IMSBC respectively. See details below and in Section 14 of this SDS.



health hazard

Carcinogenicity 2

H351 Suspected of causing cancer.

Toxic To Reproduction 1B

H360Df May damage the unborn child. Suspected of damaging fertility.

STOT RE 2

H373 May cause damage to organs through prolonged or repeated exposure.



corrosion

Serious Eye Damage/Irritation 1

H318 Causes serious eye damage.



environment

Aquatic Acute 1

H400 Very toxic to aquatic life.

Aquatic Chronic 1

H410 Very toxic to aquatic life with long lasting effects.



Acute Toxicity (Oral) 4

H302 Harmful if swallowed.

Signal Word Danger

Hazard Statements

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H351 Suspected of causing cancer.

H360Df May damage the unborn child. Suspected of damaging fertility.

H373 May cause damage to organs through prolonged or repeated exposure.

(Contd. on page 2)

Safety Data Sheet

according to WHS Regulations

Printing date 31.08.2018

Revision: 30.08.2018

Product Name: 4FARMERS LINURON 450 HERBICIDE

(Contd. of page 1)


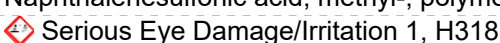
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

- 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 hands thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
 P330 Rinse mouth.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER/doctor.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P314 Get medical advice/attention if you feel unwell.
 P391 Collect spillage.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national regulations.

3 Composition and Information on Ingredients

Chemical Characterization: Mixtures**Description:** Mixture of substances listed below with nonhazardous additions.**Hazardous Components:**

CAS: 330-55-2	Linuron (ISO) 	36 - 40%
CAS: 56-81-5	Glycerol	5 - 10%
CAS: 81065-51-2	Naphthalenesulfonic acid, methyl-, polymer with formaldehyde, sodium salt 	1 - 5%

Additional information: This product also contains non-hazardous proprietary ingredients.

4 First Aid Measures

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

Skin Contact:

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

Eye Contact:

In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Seek medical attention if symptoms occur.

Ingestion:

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Give a glass of water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

Inhalation: May cause mild respiratory irritation.

Skin Contact: May cause mild skin irritation.

(Contd. on page 3)

Safety Data Sheet

according to WHS Regulations

Printing date 31.08.2018

Revision: 30.08.2018

Product Name: 4FARMERS LINURON 450 HERBICIDE

(Contd. of page 2)

Eye Contact: Causes serious eye damage.

Ingestion: Harmful if swallowed. May cause gastrointestinal irritation.

5 Fire Fighting Measures

Suitable Extinguishing Media: Use fire extinguishing methods suitable to surrounding conditions.**Specific Hazards Arising from the Chemical:**

Hazardous combustion products include oxides of carbon and nitrogen, hydrogen cyanide, other nitrogen compounds, hydrogen chloride, other chlorine compounds, water and smoke.

This product is not flammable, but may burn or decompose in a fire.

Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

Special Protective Equipment and Precautions for Fire Fighters:

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots.

Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation.

Environmental Precautions:

In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:

Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material.

Collect the spilled material and place into a suitable container for disposal.

7 Handling and Storage

Precautions for Safe Handling:

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only outdoors or in a well-ventilated area.

Food, beverages and tobacco products should not be stored or consumed where this material is in use.

Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Protect from direct sunlight. Keep away from strong oxidising agents, strong acids and strong bases.

8 Exposure Controls and Personal Protection

Exposure Standards:**CAS: 56-81-5 Glycerol**WES | TWA: 10 mg/m³**Engineering Controls:**

Maintain air concentration below occupational exposure standards, providing adequate ventilation.

Respiratory Protection:

Respiratory protection is not required under normal use conditions.

Use an approved vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

(Contd. on page 4)

Safety Data Sheet

according to WHS Regulations

Printing date 31.08.2018

Revision: 30.08.2018

Product Name: 4FARMERS LINURON 450 HERBICIDE

(Contd. of page 3)

Skin Protection:

Elbow-length PVC or rubber gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

Eye and Face Protection:

Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337 for more information.

9 Physical and Chemical Properties

Appearance:

Form:	Liquid
Colour:	Brown
Odour:	Aromatic odour
Odour Threshold:	No information available
pH-Value:	7.0 - 9.5
Melting point/freezing point:	~0 °C
Initial Boiling Point/Boiling Range:	~100 °C
Flash Point:	Not applicable
Flammability:	Product is not flammable.
Auto-ignition Temperature:	Not applicable
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	No information available
Upper:	No information available
Vapour Pressure at 20 °C:	2.37 kPa (Water vapour pressure)
Relative Density at 20 °C:	1.17 - 1.21
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Emulsifies into water.
Partition Coefficient (n-octanol/water):	3.07 log POW (Linuron)
Viscosity:	No information available

10 Stability and Reactivity

Possibility of Hazardous Reactions: Hazardous polymerisation will not occur.

Chemical Stability: Stable at ambient temperature and under normal conditions of use.

Conditions to Avoid: Direct sunlight.

Incompatible Materials: Strong oxidising agents, strong acids and strong bases.

Hazardous Decomposition Products:

Oxides of carbon and nitrogen, hydrogen cyanide, other nitrogen compounds, hydrogen chloride, other chlorine compounds, water and smoke.

(Contd. on page 5)

Safety Data Sheet

according to WHS Regulations

Printing date 31.08.2018

Revision: 30.08.2018

Product Name: 4FARMERS LINURON 450 HERBICIDE

(Contd. of page 4)

11 Toxicological Information

Toxicity:**LD₅₀/LC₅₀ Values Relevant for Classification:****CAS: 330-55-2 Linuron (ISO)**

Oral	LD ₅₀	1,200-1,500 mg/kg (rat) 2,250 mg/kg (rabbit)
Dermal	LD ₅₀	>5,000 mg/kg (rabbit)
Inhalation	LC ₅₀ /4 h	6.15 mg/l (rat)

CAS: 56-81-5 Glycerol

Oral	LD ₅₀	12,600 mg/kg (rat)
------	------------------	--------------------

Acute Health Effects**Inhalation:** May cause mild respiratory irritation.**Skin:** May cause mild skin irritation.**Eye:** Causes serious eye damage.**Ingestion:** Harmful if swallowed. May cause gastrointestinal irritation.**Skin Corrosion / Irritation:** Based on classification principles, the classification criteria are not met.**Serious Eye Damage / Irritation:** Causes serious eye damage.**Respiratory or Skin Sensitisation:** Based on classification principles, the classification criteria are not met.**Germ Cell Mutagenicity:** Based on classification principles, the classification criteria are not met.**Carcinogenicity:**

Suspected of causing cancer.

This product does NOT contain any IARC listed chemicals.

Reproductive Toxicity: May damage fertility or the unborn child.**Specific Target Organ Toxicity (STOT) - Single Exposure:**

Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

May cause damage to organs through prolonged or repeated exposure.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.**Chronic Health Effects:** No information available**Existing Conditions Aggravated by Exposure:** No information available**Additional toxicological information:**

The Australian Acceptable Daily Intake (ADI) for linuron for a human is 0.01 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 1.25 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species.

(Ref: Australian Pesticides and Veterinary Medicines Authority, 'Acceptable Daily Intakes for Agricultural and Veterinary Chemicals', 2018).

Animal studies have shown that linuron may cause anaemia.

12 Ecological Information

Ecotoxicity:

Linuron is slightly toxic to birds:

LC50 (5 - 8 day dietary): >5000 ppm (japanese quail)

LC50 (5 - 8 day dietary): 3000 ppm (mallard)

LC50 (5 - 8 day dietary): 3500 ppm (pheasant)

(Contd. on page 6)

Safety Data Sheet

according to WHS Regulations

Printing date 31.08.2018

Revision: 30.08.2018

Product Name: 4FARMERS LINURON 450 HERBICIDE

(Contd. of page 5)

Linuron is nontoxic to bees.

Aquatic toxicity:

Very Toxic to aquatic life with long lasting effects.

CAS: 330-55-2 Linuron (ISO)

LC ₅₀	16 mg/l (bluegill)
	16 mg/l (trout)

Persistence and Degradability:

This product is biodegradable. Linuron has a half-life in soil of approximately 60 days.

Bioaccumulative Potential: No further relevant information available.**Mobility in Soil:** Linuron is partially soluble in water and so may be mobile in soil.**Other adverse effects:** No further relevant information available.**13 Disposal Considerations****Disposal Methods and Containers:** Dispose according to applicable local and state government regulations.**Special Precautions for Landfill or Incineration:**

Please consult your state Land Waste Management Authority for more information.

14 Transport Information**UN Number**
ADGNot subject to the ADG Code when transported in Australia by Road or Rail in packages 500kg(L) or less; or IBCs (refer to SP AU01).
UN3082**IMDG, IATA****Proper Shipping Name****ADG****IMDG****IATA**Not regulated
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Linuron (ISO)), MARINE POLLUTANT
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Linuron (ISO))**Dangerous Goods Class****ADG Class:****IMDG Class:**Not regulated
9 Miscellaneous dangerous substances and articles.**Packing Group:****ADG****IMDG, IATA**Not regulated
III**Marine pollutant:**Yes
Symbol (fish and tree)**EMS Number:**

F-A,S-F

Hazchem Code:

•3Z

Special Provisions:

274, 331, 335, 375, AU01

Limited Quantities:

5L

Packagings & IBCs - Packing Instruction:

P001, IBC03, LP01

(Contd. on page 7)

Safety Data Sheet

according to WHS Regulations

Printing date 31.08.2018

Revision: 30.08.2018

Product Name: 4FARMERS LINURON 450 HERBICIDE

(Contd. of page 6)

Packagings & IBCs - Special Packing Provisions: PP1**Portable Tanks & Bulk Containers - Instructions: T4****Portable Tanks & Bulk Containers - Special Provisions: TP1, TP29**

15 Regulatory Information

Australian Inventory of Chemical Substances: All ingredients are listed.**Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:**
Not Scheduled.

16 Other Information

Date of Preparation or Last Revision: 30.08.2018**Prepared by:** MSDS.COM.AU Pty Ltdwww.msds.com.au**Abbreviations and acronyms:**

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC₅₀: Lethal concentration, 50 percentLD₅₀: Lethal dose, 50 percent

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Acute Toxicity (Oral) 4: Acute toxicity – Category 4

Serious Eye Damage/Irritation 1: Serious eye damage/eye irritation – Category 1

Carcinogenicity 2: Carcinogenicity – Category 2

Toxic To Reproduction 1B: Reproductive toxicity – Category 1B

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment, short-term (Acute). Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment, long-term (Chronic). Category 1

Disclaimer

This SDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - February 2016"

The information contained in this safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. 4Farmers Australia Pty Ltd makes no representation of the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability for any loss or damage related to the supply or use of the information in this material safety data sheet. MSDS.COM.AU Pty Ltd is not in a position to warrant the accuracy of the data herein. The user is cautioned to make their own determinations as to the suitability of the information provided to the particular circumstances in which the product is used.