

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

PRODUCT NAME: LIRON

OTHER NAME: Suspension concentrate containing 450 g/L linuron

USE: Selective systemic herbicide

SUPPLIER NAME: AGPRO NZ Ltd

SUPPLIER ADDRESS: 10 Polaris Place, East Tamaki, Auckland 2013
PO Box 58-963, Botany, Auckland 2163

SUPPLIER CONTACT: 09 273 3456 or freephone 0508 536 536
www.agpro.co.nz

POISON INFORMATION: National Poison Centre, 0800 POISON (0800 764 766) 24 hours


CHEMICAL EMERGENCY: 0800 CHEMCALL (0800 243 622) 24 hours

2. HAZARDS IDENTIFICATION

NEW ZEALAND: Hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020 of the HSNO Act, 1996

APPROVAL NUMBER: HSR100376

HAZARD CLASSIFICATIONS: Eye irritation Category 2, Reproductive toxicity Category 2, Specific target organ toxicity (repeated exposure) Category 1, Hazardous to soil organisms, Hazardous to terrestrial vertebrates, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1.

PICTOGRAMS:
 

SIGNAL WORD: DANGER

HAZARD STATEMENTS: Cause serious eye irritation.
Suspected of damaging fertility or the unborn child.
Presumed to cause damage to organs through prolonged or repeated oral exposure at high doses.
Very toxic to aquatic life and with long-lasting effects.
Very toxic to soil organisms.
Toxic to terrestrial vertebrates.

PREVENTION: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Do not breathe mist/vapours/spray. Wash hands thoroughly after handling.
Use personal protection equipment as required. Wear eye or face protection.
Avoid release to the environment.

RESPONSE: IF exposed or concerned: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.
Collect spillage.

STORAGE: Store locked up.

DISPOSAL: Dispose of unwanted product and used packaging in compliance with local regulations.

TRANSPORT: Liron is classified as Dangerous Goods Class 9 for Transport.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS No.	% w/w
Linuron	330-55-2	39 - 41*
Ethylene glycol	23950-58-5	1 - 5
Other ingredients	Trade secret	balance

* equivalent to 450 g/L linuron

4. FIRST - AID MEASURES

Contact the National Poisons Centre on 0800 POISON (0800 764 766) or a doctor for advice if exposed, concerned or feel unwell.

Have product label or SDS at hand.

Ingestion	If swallowed, do NOT induce vomiting. Rinse mouth with water. Contact the National Poisons Centre on 0800 POISON (0800 764 766) or a doctor for advice.
Inhalation	Remove patient to fresh air. Keep in position comfortable for breathing. If breathing is shallow or has stopped ensure airway is clear, apply resuscitation and seek medical assistance immediately.
Skin contact	Remove contaminated clothing and wash with soap and running water. If irritation persists, get medical advice.
Eye contact	If in eyes flush with plenty of water holding eyelids open if necessary. Remove contact lenses if present, after a few minutes, then continue flushing with water. Get medical advice if irritation persists.
Advice to Doctor	No specific antidote. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flammability:	Non-flammable.
Hazardous Combustion Products:	If involved in a fire, may evolve toxic/harmful compounds, e.g. carbon, nitrogen and sulphur oxides, and sulphides.
Extinguishing Media:	Foam, water fog or spray, carbon dioxide or dry chemical as appropriate to surrounding materials.
Protective Equipment:	Full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Spills and Disposal:	Wear personal protective equipment. Exclude non-essential people from the area. Contain spillage. Collect spillage in labeled containers than can be closed, for reuse or disposal. For small liquid spills absorb spillage with with inert material (such as vermiculite, earth, sand or synthetic absorbent substance), and place in a sealable labelled waste container. Dispose of waste safely in an approved landfill or hazardous waste facility.
Environmental Precautions:	Prevent from entering drains, waterways or sewers. If spill does enter waterways immediately contact local authority. Liron is a herbicide and spillage on soil may damage crops.

7. HANDLING AND STORAGE

Handling:	Keep out of reach of children. Read label before use. Keep container tightly closed when not in use. Use only according to label. Wear personal protective equipment. Avoid contact with skin and eyes and inhalation of vapours or spray mist. Use outdoors or in well-ventilated area. Do not apply directly into or onto water. Take all reasonable steps to ensure the product does not cause any significant adverse effects to the environment beyond the application area. Written records of use are required if more than 3 kg (3L) applied within 24 hours in a place where the product is likely to enter air or water and leave the application area.
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Storage: Signage, an emergency response plan and secondary containment are required when more than 100 L is on site. Store in original container tightly closed and in a locked well-ventilated area away from foodstuffs, fertilisers and seeds.

For guidance refer to the current version of NZS 8409 Management of Agrichemicals and Health and the Safety at Work (Hazardous Substances) Regulations 2017.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits: Worksafe NZ (12th edition, November 2020)

<i>Ingredient</i>	<i>Exposure</i>	<i>Form</i>	<i>Ceiling</i>
Ethylene glycol	Inhalation	Mist, vapour	50 ppm (127 mg/m ³)

Protective Equipment: When opening the container, preparing to measure, load or when applying: wear safety goggles, waterproof gloves, cotton overalls buttoned to the neck and wrist, and boots.

The following Standards provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: **AS/NZS 4501**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

Engineering Controls: Handle outdoors or in a well-ventilated area. Use local exhaust ventilation, or other engineering controls as appropriate to conditions.

Hygiene Precautions: Do not eat, drink or smoke while using this product. Remove protective clothing and wash hands and face before meals and after work. Wash protective clothing and equipment daily after work.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Off-white liquid

Odour: Slight, characteristic

Odour threshold: No information available

pH (neat) 5.0 - 7.0

Melting point/freezing point: Not available

Initial boiling point/range: Not available

Flashpoint: Nonflammable

Flammability (solid, gas): Not applicable

Upper/lower flammability limits: Not available

Vapour pressure: Not available

Vapour density: Not available

Relative density: ca 1.14

Solubilities: Forms suspension in water

Partition coefficient: n-octanol/water: Not available

Auto-ignition temperature: No information available

Decomposition temperature: Not available

Kinematic viscosity: Not available

Particle characteristics: Not applicable

10. STABILITY AND REACTIVITY

Stability: Stable under normal storage conditions in original container for at least two years.

Conditions to avoid: Temperature extremes.

Incompatible substances or materials: Oxidizing agents, acids.

Hazardous polymerization: Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	Not classified as acutely toxic if swallowed, in contact with skin or if inhaled.
Aspiration hazard:	Not classified.
Respiratory irritation:	Not classified.
Skin corrosion/irritation:	Not classified.
Serious eye damage/irritation:	Severe eye irritant.
Respiratory or skin sensitization:	Not classified.
Germ cell mutagenicity:	Not classified.
Carcinogenicity:	Not classified.
Reproductive toxicity:	Linuron is identified as suspected of damaging fertility or the unborn child.
Specific organ toxicity:	Presumed to cause damage organs or systems through prolonged or repeated oral exposure.
Narcotic effects:	No components identified with narcotic effects.
Toxicological information:	<u>Linuron (active)</u> Oral, rat LD ₅₀ > 1146mg/kg bw Dermal, rat LD ₅₀ 2000 mg/kg bw Inhalation, rat LC ₅₀ (4 hr) >0.85 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity:	Liron is classified as being very toxic to aquatic life and with long-lasting effects. Liron is also very toxic to the soil environment and toxic to terrestrial vertebrates.
Ecotoxicological information:	<u>Linuron (active)</u> Fish: <i>Oncorhynchus mykiss</i> LC ₅₀ (96 h) 3.15 g/L Crustacean: <i>Daphnia magna</i> EC ₅₀ (48 h) 0.31 mg/L Algae: <i>Rapidocelis subcapitata</i> EC ₅₀ (72 hr) growth 0.016 mg/L Aquatic plant: <i>Lemna gibba</i> EC ₅₀ (7d) growth, 0.017 mg/L Bird: <i>Colinus virginianus</i> LD ₅₀ 314 mg/kg bw
Persistence and degradability:	DT ₅₀ (typical) 57.6 days; moderately persistent.
Potential to be bioaccumulative:	Not expected to be bioaccumulative.
Mobility in soil:	Linuron has some solubility in water; 63.8 mg/L.
Other adverse effects:	No information available.
Environmental Exposure Limits (EEL):	Not Applicable.

13. DISPOSAL CONSIDERATIONS

Product disposal:	Dispose of product only by using according to label or dispose of at an approved landfill.
Container Disposal:	Ensure container is completely empty. Triple rinse with water and add rinsate to spray tank. Dispose of empty clean container to recycler for agricultural chemicals, otherwise crush and bury in an approved landfill. Do not use container for any other purpose.

14. TRANSPORT INFORMATION

UN Number:	UN3082
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (linuron 45%)
DG Class:	9
Packing Group:	III
Marine Pollutant:	YES
HAZCHEM	3Z

15. REGULATORY INFORMATION

New Zealand Registered pursuant to the ACVM Act 1997, No. P9494
 See www.foodsafety.govt.nz for registration conditions
 Approved pursuant to the HSNO Act 1996, Approval Code HSR100376
 See www.epa.govt.nz for Controls and www.worksafe.govt.nz.

Qualifications	Qualified Handler.
Tracking:	Not Required
Safety Data Sheet:	Any quantity
Restricted to workplace only:	No
Quantity that must be secured when unattended:	Not Applicable
Fire extinguishers	Not Applicable
Quantity for secondary containment and emergency response plan:	100 L
Quantity for signage:	100 L
Quantity for Location certificate	Not Required
Records of use (3 kg or more applied to area within 24 hours)	Yes
Quantity that requires management in accordance with HSW HS Regulations	Not Applicable

16. OTHER INFORMATION

Version: 2.1

Issue Date: 8 June 2023

Reason for Issue: Supplier's contact details updated.

Replaces: Version 2.0 dated 29 January 2022

References:

Supplier Safety Data Sheets

NZ EPA Approved Hazardous Substances Databases.

Worksafe NZ Workplace Exposure Standards and Biological Exposure Indices

NZS 5433:2020 New Zealand Standard Transport of Dangerous Goods on Land

Abbreviations:

ACVM	Agricultural Chemicals and Veterinary Medicines Group
ADI	Acceptable Daily Intakes
BCF	Bioconcentration factor
CAS Number	Chemical Abstracts Service Registry Number
CCID	Chemical Classification Identification Database
EPA	Environmental Protection Authority
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
HSNO	Hazardous Substances and New Organisms

HS	Health and Safety
HSR	Hazardous Substances Register
IARC	International Agency for Research on Cancer
LC ₅₀	Median Lethal Concentration
LD ₅₀	Median Lethal Dose (50% population)
SDS	Safety Data Sheet
NOAEL	No Observable Adverse Effect Level
NOEL	No Observable Effect Level
NOS	Not otherwise specified
STEL	Short Term Exposure Limit
TWA	Time-Weighted Average
UN Number	United Nations Number
WES-STEL	Workplace exposure standards – Short-term exposure limit
WES-TWA	Workplace exposure standards – Time-weighted average

The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

End of Safety Data Sheet