

Infosafe No™ 3NUZP Issue Date : July 2017 ISSUED by NUFARM

Product Name **LEPIDEX 500 Insecticide**

Classified as hazardous

1. Identification

GHS Product Identifier LEPIDEX 500 Insecticide

Product Code 0897 - 5LW ; 0897 - 20LW

Product Type Group 1B Insecticide

Company Name NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)

Address 103-105 Pipe Road Laverton North
Victoria 3026 Australia

Telephone/Fax Number Tel: +61 3 9282-1000
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Emergency phone number 1800 033 498 (24hr Australia)

Recommended use of the chemical and restrictions on use For the control of a wide range of insects in various situations as per the Directions for Use table on the label.

Other Information This Safety Data Sheet describes the properties of the concentrated product. The physical properties and the assessments may not apply to the properties of the product once it has been diluted for application.

2. Hazard Identification

GHS classification of the substance/mixture FL3 Flammable Liquids: Category 3
TR1 Toxic to Reproduction: Category 1
OT4 Acute Toxicity - Oral: Category 4
SS-1 Sensitization - Skin: Category 1
ED2A Eye Damage/Irritation: Category 2A
SC-2 Skin Corrosion/Irritation: Category 2
SE-3NARC STOT Single Exposure Category 3 (narcotic)
SE-3RES STOT Single Exposure Category 3 (respiratory tract irritation)
AA1 Hazardous to the Aquatic Environment - Acute Hazard: Category 1
AC1 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1

Signal Word (s) DANGER

Hazard Statement (s) H226 Flammable liquid and vapour.
H360 May damage fertility or the unborn child.
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

General 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.

Pictogram (s) Flame, Health hazard, Exclamation mark, Environment,
The below pictograms are GHS Hazard symbols for workplace use only.
See SECTION 14 for Dangerous Goods information.



Precautionary statement – Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P280 Wear protective gloves, clothing, eye and face protection.
P264 Wash hands and exposed skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P261 Avoid breathing vapours and spray.
P272 Contaminated work clothing should not be allowed out of the workplace.

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Precautionary statement – Response	<p>P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>P308+P313 IF exposed or concerned: Get medical advice/attention.</p> <p>P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.</p> <p>P321 Specific treatment (see First Aid directions on this SDS).</p> <p>P330 Rinse mouth.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of soap and water.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/attention.</p> <p>P363 Wash contaminated clothing before reuse.</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>P337+P313 If eye irritation persists: Get medical advice/attention.</p> <p>P332+P313 If skin irritation occurs: Get medical advice/attention.</p> <p>P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P312 Call a POISON CENTER or doctor/physician if you feel unwell.</p>
Other Information	Poisons Schedule S6

3. Composition/information on ingredients

Chemical Characterization	Liquid		
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Trichlorfon	52-68-6	500 g/L
	1-methoxy-2- propanol	107-98-2	45 %
	N-methyl pyrrolidone		10-30 %

4. First-aid measures

Inhalation	Remove patient to fresh air. Obtain medical advice.
Ingestion	<p>Rinse mouth thoroughly with water.</p> <p>If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust). Make every effort to prevent vomit from entering the lungs by careful placement of the patient.</p>
Skin	<p>Obtain medical advice immediately.</p> <p>Any skin contaminated with the concentrate must be thoroughly washed with soap and water.</p>
Eye contact	<p>If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes.</p> <p>Seek medical advice.</p>
First Aid Facilities	If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.
Advice to Doctor	<p>The degradation product dichlorvos, usually formed in vivo, is an anticholinesterase compound. Vomiting may cause pulmonary aspiration. The stomach should be emptied as soon as possible by careful gastric lavage (using a cuffed endotracheal tube already in place). Artificial respiration should be started at the first sign of respiratory failure. Cautious administration of fluids is advised, as well as general supportive and symptomatic pharmacological treatment and absolute rest. As early as possible, administer 2 mg of atropine sulfate i.v. and 1000-2000 mg of pralidoxime chloride or 250 mg of obidoxime chloride (adult dose) i.v. to patients suffering from severe respiratory difficulties, convulsions, and unconsciousness. Repeated doses of 2 mg of atropine sulfate should be given, as required, based on the respiration, blood pressure, pulse frequency, salivation, and convulsion conditions. The dose and the frequency of atropine varies with each patient, but the patient should remain fully atropinised (signs include dilated pupils, dry mouth, skin flushing). Diazepam should be given in all but the mildest cases in doses of 10 mg, s.c. or i.v., which may be repeated as required. For children, the doses are 0.04-0.08 mg of atropine/kg body weight, 250 mg of pralidoxime chloride per child, or 4-8 mg of obidoxime chloride/kg body weight. Morphine, barbiturates, phenothiazine derivatives, tranquillizers, and all kinds of central stimulants are contraindicated.</p>

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5. Fire-fighting measures

Suitable extinguishing media	Water fog, foam, carbon dioxide or dry chemical.
Hazards from Combustion	If involved in a fire, it will emit carbon monoxide, phosgene and possibly oxides of phosphorous.
Products	
Special Protective Equipment for fire fighters	Breathable air apparatus may have to be worn if material is involved in fires especially in confined spaces.
Hazchem Code	•2Y
Other Information	STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

6. Accidental release measures

Spills & Disposal	Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect spilled material and waste in sealable open-top type containers for disposal. Dispose of at a landfill in accordance with local regulations. If possible, ring 1800 033 498 for specialist advice.
Clean-up Methods - Large Spillages	Place damaged containers in recovery bins (if available) and return to manufacturer.
Environmental Precautions	Contaminated earth (after a spill) can be treated with lime to hasten decomposition of the active ingredient. Trichlorfon is rapidly hydrolysed under alkaline conditions (<30 minutes at pH9) to dichlorvos which, in turn, is further hydrolysed, albeit more slowly (half life of 2 days at pH9).

7. Handling and storage

Conditions for safe storage, including any incompatibilities	Store in the closed, original container in a dry, well ventilated area out of direct sunlight. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.
Other Information	Always read the label and any attached leaflet before use.

8. Exposure controls/personal protection

Occupational exposure limit values	No biological exposure limit allocated. Safe Work Australia has set the following exposure standard for 1-methoxy-2-propanol : TLV (TWA) 369 mg/m3, STEL 553 mg/m3. An exposure standard has been set for dichlorvos (trichlorfon degradation product) of 0.9 mg/m3 (TWA). SK An exposure standard has been set for NMP at TLV (TWA) 103 mg/m3 and STEL 309 mg/m3. SK 'SK' notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur. Handle in well ventilated areas, generally natural ventilation is adequate.
Appropriate engineering controls	
Personal Protective Equipment	When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves, goggles, impervious footwear and half piece respirator with combined dust and gas cartridge (canister).
Hygiene Measures	After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash contaminated clothing and safety equipment.
Requirements Concerning Special Training	Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

9. Physical and chemical properties

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Form	Liquid
Appearance	Clear, colourless solution.
Melting Point	75 - 84°C (for trichlorfon)
Solubility in Water	Soluble in water.
Specific Gravity	1.150
pH	6.5 - 7 (5%)
Vapour Pressure	0.21 mPa @ 20°C (for trichlorfon); 1.21 kPa @ 20°C (for 1-methyl-2-propanol).
Vapour Density (Air=1)	>1
Flash Point	37°C (PMCC - AS 2104)
Flammability	Flammable Liquid. GHS category 3.

10. Stability and reactivity

Incompatible Materials	Avoid contact of the concentrate with strong alkalis and alkaline materials such as lime. Avoid contact of the concentrate with strong acids.
Hazardous Decomposition Products	Will decompose above pH 5.5 to form dichlorvos - a cholinesterase inhibitor.
Possibility of hazardous reactions	Keep away from strong oxidising agents.
Hazardous Polymerization	Hazardous polymerisation is not possible.

11. Toxicological Information

Acute Toxicity - Oral	LD50 (rat) 212 mg/kg for trichlorfon
Acute Toxicity - Dermal	LD50 (rat) >5000 mg/kg for trichlorfon
Acute Toxicity - Inhalation	LC50 (rat) (4hr) >0.53 mg/l for trichlorfon
Ingestion	The concentrate is harmful if swallowed.
Inhalation	Prolonged exposure to vapors may cause coughing, shortness of breath, dizziness and intoxication.
Skin	Prolonged contact with the concentrate may result in absorption of trichlorfon in harmful amounts. Prolonged contact with the concentrate can cause defatting of the skin and may result in dermatitis.
Eye	May cause sensitisation by prolonged skin contact. The concentrate may cause severe eye irritation.
Skin Sensitisation	Prolonged and repeated skin contact may result in skin sensitisation.
Chronic Effects	Regular exposure may result in lowering of cholinesterase activity which will recover within a few days after exposure ceases. Symptoms of over-exposure are exhaustion, headache, weakness, confusion, vomiting, abdominal pain, excessive sweating and salivation. In severe case of poisoning, muscle spasms, unconsciousness, convulsions may develop and extend to respiratory failure.
Skin corrosion/irritation	May cause irritation.
Human Effects	The major effect of the product when absorbed in moderate doses is cholinesterase inhibition. This effect is due to dichlorvos, which rapidly forms from the compound in the body.
Other Information	The Australian Acceptable Daily Intake (ADI) for trichlorfon for a human is 0.002 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.2 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most

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sensitive species. (Ref: Comm. Dept. of Health and Ageing, Office of Chemical Safety, 'ADI List', March 2016).

12. Ecological information

Mobility	Rapid degradation in soil prevents significant downward movement under normal conditions.
Known Harmful Effects on the Environment	The product is a marine pollutant for sea transport.
Other Precautions	Do not contaminate dams, waterways or sewers with this product.
Environmental Protection	Spray drift can cause damage, read the label for more information.
Acute Toxicity - Fish	The following is data for the active ingredient, trichlorfon. Toxic to fish. LC50 (96hr) for rainbow trout is 0.7 mg/l.
Acute Toxicity - Daphnia	LC50 (48hr) for daphnia is 0.00096 mg/l for trichlorfon.
Acute Toxicity - Other Organisms	Moderately toxic to birds. LD50 for mallard duck is 36.8 mg/kg LD50 for bobwhite quail is 22.4 mg/kg Moderately toxic to bees.

13. Disposal considerations

Product Disposal	On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).
Container Disposal	Do not use this container for any other purpose. Triple rinse containers before disposal. Add rinsings to the spray tank. 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 for appropriate disposal at an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500mm 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. drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMUSTER symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program.

14. Transport information

Transport Information	It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.
U.N. Number	3092
UN proper shipping name	1-METHOXY-2-PROPANOL - 45% solution
Transport hazard class(es)	3
Hazchem Code	•2Y
Packaging Method	P001
Packing Group	III
Storage and Transport	Considered dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.
EPG Number	3A1
IERG Number	16

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IMDG UN No	3092
IMDG Description	1-methoxy-2-propanol 45% solution
IMDG Hazard Class	Class 3
IMDG Pack. Group	Packing Group III
IMDG Marine pollutant	Marine Pollutant

15. Regulatory information

Regulatory Information	WHS Schedule 11: item 8 - Flammable Liquid category 3 .
Poisons Schedule	S6
National and or International Regulatory Information	There is a legislative requirement in most States in Australia for workers to be medically monitored when using organophosphates, by:- 'estimation of red cell and plasma cholinesterase activity towards the end of the day on which organophosphates have been used'. Ref: Control of Workplace Hazardous Substances, NOHSC:1005.
Packaging & Labelling	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Other Information	This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 33110.

16. Other Information

Date of preparation or last revision of SDS	12/07/2017
Contact Person/Point	Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000 After Hours: Shift Supervisor Phone: 1800 033 498
Revisions Highlighted	The SDS was reviewed. Minor changes were made to the information and product has been rebranded. ...End Of MSDS...

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