



4 Farmers ... For Farmers
Printing date 05.09.2016

SAFETY DATA SHEET

According to Safe Work Australia

Revision: 05.09.2016

1 . IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Name: 4FARMERS CHLORPYRIFOS 500 INSECTICIDE

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

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 . HAZARDS IDENTIFICATION

Hazardous Nature:

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

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition).



skull and crossbones

Acute Tox. (Oral) 3 H301 Toxic if swallowed.

Acute Tox. (Dermal) 3 H311 Toxic in contact with skin.



health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

Flam. Liq. 4 H227 Combustible liquid.

Signal Word Danger

Hazard Statements

H227 Combustible liquid.

H301+H311 Toxic if swallowed or in contact with skin.

H304 May be fatal if swallowed and enters airways.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P321 Specific treatment (see on this label).

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

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- P330 Rinse mouth.
 P331 Do NOT induce vomiting.
 P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P391 Collect spillage.
 P361+P364 Take off immediately all contaminated clothing and wash it before reuse.
 P405 Store locked up.
 P403+P235 Store in a well-ventilated place. Keep cool.
 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:

2921-88-2	chlorpyrifos (ISO)	50%
	☠ Acute Tox. (Oral) 3, H301; ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	
64742-95-6	Solvent naphtha (petroleum), light arom.	40%
	☠ Asp. Tox. 1, H304; Flam. Liq. 4, H227	

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, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.

Ingestion:

If swallowed, do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Do not give anything by mouth to an unconscious person. Seek immediate medical attention. If swallowed, activated charcoal may be advised. Give atropine if instructed.

Information for Doctor:

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, tranquilizers, and all kinds of central stimulants are contraindicated.

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Symptoms Caused by Exposure:

The majority of the neurological symptoms associated with chlorpyrifos exposure are headache, nausea, vomiting, diarrhoea, bradycardia, blurred vision, pulmonary oedema, salivation, lacrimation, and urination.

5 . FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Foam, dry chemical or carbon dioxide.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon, sulfur, phosphorus and nitrogen, hydrogen chloride, phosgene, and other pyrolysis products.

Combustible liquid.

Closed containers may explode when exposed to extreme heat. 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 Safe Work Australia 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. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking. Do not touch or walk through spilled material.

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. Provide adequate ventilation.

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/mist. 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, heat, sparks, open flames and other sources of ignition. Keep away from strong oxidising agents. Protect from physical damage. Check regularly for spills.

8 . EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:**2921-88-2 chlorpyrifos (ISO)**

NES	TWA: 0.2 mg/m ³
	Sk

HEALTH MONITORING:

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

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day on which organophosphates have been used'. Ref: Control of Workplace Hazardous Substances, NOHSC:1005.

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapour below occupational exposure standards.

Respiratory Protection:

Use a Safe Work Australia 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.

Skin Protection:

PVC, PVA, nitrile, neoprene, rubber or vinyl gloves, cotton overalls buttoned to the neck and wrist and a washable hat. See Australian/New Zealand Standard AS/NZS 2161 and 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:	Clear light amber colour
Odour:	Strong aromatic odour
Odour Threshold:	No information available
pH-Value:	2-3
Melting point/Melting range:	No information available
Initial Boiling Point/Boiling Range:	>112 °C
Flash Point:	>61 °C
Flammability:	Combustible liquid
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	No information available
Upper:	No information available
Vapour Pressure:	No information available
Density:	No information available
Relative Density at 20 °C:	1.1 g/cm ³
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Emulsifies with water.

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: Heat, sparks, open flames, hot surfaces and direct sunlight.

Incompatible Materials: Strong oxidising agents.

Hazardous Decomposition Products:

Oxides of carbon, sulfur, phosphorus and nitrogen, hydrogen chloride and phosgene.

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11 . TOXICOLOGICAL INFORMATION

Toxicity:

LD₅₀/LC₅₀ Values Relevant for Classification:		
2921-88-2 chlorpyrifos (ISO)		
Oral	LD ₅₀	135 mg/kg (rat)
Dermal	LD ₅₀	202 mg/kg (rat)
64742-95-6 Solvent naphtha (petroleum), light arom.		
Oral	LD ₅₀	>6800 mg/kg (rat)
Dermal	LD ₅₀	>3400 mg/kg (rab)
Inhalation	LC ₅₀ /4 h	>10.2 mg/l (rat)

Acute Health Effects**Inhalation:** May cause respiratory irritation.**Skin:** Not expected to be a hazard.**Eye:** Not expected to be a hazard.**Ingestion:** Toxic if swallowed.**Skin Corrosion / Irritation:** Based on classification principles, the classification criteria are not met.**Serious Eye Damage / Irritation:** Based on classification principles, the classification criteria are not met.**Respiratory or Skin Sensitisation:** No sensitising effects known.**Germ Cell Mutagenicity:** Based on classification principles, the classification criteria are not met.**Carcinogenicity:** This product does NOT contain any IARC listed chemicals.**Reproductive Toxicity:** Based on classification principles, the classification criteria are not met.**Specific Target Organ Toxicity (STOT) - Single Exposure:** May cause respiratory irritation.**Specific Target Organ Toxicity (STOT) - Repeated Exposure:**
Based on classification principles, the classification criteria are not met.**Aspiration Hazard:** May be fatal if swallowed and enters airways.**Chronic Health Effects:**

May cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis.

May be irritating to the eye, with prolonged contact causing inflammation.

Existing Conditions Aggravated by Exposure: No information available**Additional toxicological information:**

The Australian Acceptable Daily Intake (ADI) for chlorpyrifos for a human is 0.003 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.03 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: Comm. Dept. of Health and Ageing, Office of Chemical Safety, 'ADI List', March 2016).

12 . ECOLOGICAL INFORMATION

Ecotoxicity:**Aquatic toxicity:**

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Persistence and Degradability: High persistence in water and soil.**Bioaccumulative Potential:** Low bioaccumulative potential.

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Mobility in Soil: Moderate mobility in soil.

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 ADG, IMDG, IATA	UN3018
Proper Shipping Name ADG	3018 ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC (chlorpyrifos (ISO)), ENVIRONMENTALLY HAZARDOUS
IMDG	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC (chlorpyrifos (ISO), Solvent naphtha (petroleum), light arom.), MARINE POLLUTANT
IATA	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC (chlorpyrifos (ISO))
Dangerous Goods Class ADG Class: IMDG Class:	6.1 (T6) Toxic substances. 6.1 Toxic substances.
Packing Group: ADG, IMDG, IATA	III
Marine pollutant:	Yes Symbol (fish and tree)
EMS Number:	F-A,S-A
Hazchem Code:	2X
Special Provisions:	61, 223, 274
Limited Quantities:	5L
Packagings & IBCs - Packing Instruction:	P001, IBC03, LP01
Packagings & IBCs - Special Packing Provisions:	Not applicable
Portable Tanks & Bulk Containers - Instructions:	T7
Portable Tanks & Bulk Containers - Special Provisions:	TP2, TP28

15 . REGULATORY INFORMATION

Australian Inventory of Chemical Substances:

2921-88-2	chlorpyrifos (ISO)
64742-95-6	Solvent naphtha (petroleum), light arom.

WHS REGULATIONS:

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

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day on which organophosphates have been used'. Ref: Control of Workplace Hazardous Substances, NOHSC:1005.

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:
Poisons Schedule: 6

16 . OTHER INFORMATION

Date of Preparation or Last Revision: 05.09.2016

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 percent

LD₅₀: 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)

Flam. Liq. 4: Flammable liquids – Category 4

Acute Tox. (Oral) 3: Acute toxicity – Category 3

Asp. Tox. 1: Aspiration hazard – Category 1

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 - December 2011”

The information contained in this material 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. 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.