

According to Safe Work Australia

Printing date 21.12.2022

Revision: 21.12.2022

1. IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Name: 4FARMERS CLETHODIM 360 EC 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. 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.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)



Aspiration Hazard 1 H304 May be fatal if swallowed and enters airways.

Flammable Liquids 4 H227 Combustible liquid.

Signal Word Danger

Hazard Statements

H227 Combustible liquid. H304 May be fatal if swallowed and enters airways.

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.

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

P331 Do NOT induce vomiting.

P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

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.

Additional Information AUH066 Repeated exposure may cause skin dryness or cracking.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Characterization: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Hazardous Components:

64742-94-5	Solvent naphtha (petroleum), heavy arom.	Aspiration Hazard 1, H304	>53%
99129-21-2	Clethodim		36%

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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 at least 15 minutes. Seek medical attention if symptoms occur.

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.

Symptoms Caused by Exposure:

Inhalation: May cause nasal discharge, sore throat, coughing and difficulty breathing.

Eye Contact: Direct contact may cause prolonged and/or substantial irritation, redness, swelling and pain. Ingestion: Harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhoea. If aspirated into the lungs from vomiting or swallowing, the presence of solvent may result in chemical pneumonitis or other lung damage.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Carbon dioxide, dry chemical powder, foam or water fog.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon, nitrogen and sulphur, hydrogen chloride and phosgene.

Combustible liquid class 1.

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.

There is no explosion risk from this product under normal circumstances if it is involved in a fire.

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 and full protective clothing. Evacuate all nonessential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.



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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. Wash contaminated area with soap and water.

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.

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 heat, sparks, open flames and other sources of ignition. Keep away from strong oxidising agents.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Engineering Controls: Ensure adequate ventilation of the working area.

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:

Elbow-length PVC gloves, cotton overall buttoned to the neck and wrist, safety boots and a washable hat. See Australian Standards AS/NZS 2161, 2210.1 and 2210.2 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:	Light brown
Odour:	Light petroleum odour
Odour Threshold:	No information available
pH-Value:	3.5-5.5
Melting point/Melting range:	<0 °C
Initial Boiling Point/Boiling Ran	ge: No nformation available
Flash Point:	61°C
Flammability:	Combustible Liquid Class 1
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available



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Explosion Limits:		
Lower:	No information available	
Upper:	No information available	
Vapour Pressure:	No information available	
Density:	No information available	
Relative Density:	0.94-0.96	
Vapour Density:	No information available	
Evaporation Rate:	No information available	
Solubility in Water:	Immiscible. Floats on 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, nitrogen and sulphur, hydrogen chloride and phosgene.

11. TOXICOLOGICAL INFORMATION

Toxicity:

LD ₅₀ /LC ₅₀ Values Relevant for Classification:							
99129-21-2 Clethodim							
Oral	LD_{50}	1360 mg/kg (rat) (female)					
		1630 mg/kg (rat) (male)					
Dermal	LD_{50}	>5000 mg/kg (rat)					
Inhalation	LC₅₀/4 h	>3.9 mg/l (rat)					

Acute Health Effects

Inhalation:

Inhalation of vapours while handling the concentrate may cause respiratory irritation. Symptoms inlcude nasal discharge, sore throat, coughing and difficulty breathing.

Skin: May cause skin irritation.

Eye: Direct contact may cause prolonged and/or substantial irritation, redness, swelling and pain. **Ingestion:**

Harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhoea. If aspirated into the lungs from vomiting or swallowing, the presence of solvent may result in chemical pneumonitis or other lung damage.

Skin Corrosion / Irritation: Causes skin irritation.

Serious Eye Damage / Irritation: Causes serious eye irritation.

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: 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:

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

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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: Chronic exposure can cause damage to the liver.

Existing Conditions Aggravated by Exposure: No information available

Additional toxicological information:

The Australian Acceptable Daily Intake (ADI) for clethodim for a human is 0.01 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1 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', June 2014).

12. ECOLOGICAL INFORMATION

Ecotoxicity: Clethodim has low toxicity to bees, earthworms and birds.

LC50 (dietary) >6000 mg/kg (mallard ducks)

LD50 (oral) >2000 mg/kg (bobwhite quail) LC50 (contact) >100 µg/bee LC50 454 mg/kg (earthworms)

Aquatic toxicity:

99129-21-2 Clethodim

EC_o/48 h 120 mg/l (daphnia)

EC_{so}/120hr 57.8 mg/l (algae)

LC₅₀/96 h 67 mg/l (rainbow trout)

Persistence and Degradability:

Average field half life of clethodim is 1-3 days. Persistence of clethodim in water/soil is high.

Bioaccumulative Potential: Biaccumulation of clethodim is low.

Mobility in Soil: Mobility of clethodim is medium.

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 Not regulated

Proper Shipping Name Not regulated

Dangerous Goods Class Not regulated

Packing Group: Not regulated

15. REGULATORY INFORMATION

Australian Inventory of Chemical Substances:

64742-94-5 Solvent naphtha (petroleum), heavy arom.

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule: Poisons Schedule: 5

16. OTHER INFORMATION

Date of Preparation or Last Revision: 21.12.2022



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Abbreviations and acronyms:

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

 LD_{so} : 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) Flammable Liquids 4: Flammable liquids - Category 4 Aspiration Hazard 1: Aspiration hazard - 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.