



4 Farmers ... For Farmers  
Printing date 19.12.2016

# SAFETY DATA SHEET

According to Safe Work Australia

Revision: 19.12.2016

## 1. IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

**Product Name:** 4FARMERS CLETHODIM 240 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)



health hazard

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	>60%
99129-21-2	Clethodim		24%

(Contd. on page 2)

# SAFETY DATA SHEET

## According to Safe Work Australia

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Revision: 19.12.2016

**Product Name: 4FARMERS CLETHODIM 240 EC HERBICIDE**

(Contd. of page 1)

### 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.

**Information for Doctor:**

Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure. Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO<sub>2</sub> 50 mm Hg) should be intubated.

Intravenous lines and cardiac monitors should be established in obviously symptomatic patients.

The lungs excrete inhaled solvents, so that hyperventilation improves clearance.

A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically.

**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 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.

(Contd. on page 3)

# SAFETY DATA SHEET

## According to Safe Work Australia

Printing date 19.12.2016

Revision: 19.12.2016

**Product Name: 4FARMERS CLETHODIM 240 EC HERBICIDE**

(Contd. of page 2)

**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:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Light brown
<b>Odour:</b>	Light petroleum odour
<b>Odour Threshold:</b>	No information available
<b>pH-Value:</b>	4.8-5.5
<b>Melting point/Melting range:</b>	<0 °C
<b>Initial Boiling Point/Boiling Range:</b>	> 100 °C
<b>Flash Point:</b>	61-150 °C
<b>Flammability:</b>	Combustible Liquid Class 1
<b>Auto-ignition Temperature:</b>	No information available
<b>Decomposition Temperature:</b>	No information available

(Contd. on page 4)

# SAFETY DATA SHEET

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(Contd. of page 3)

<b>Explosion Limits:</b>	
<b>Lower:</b>	No information available
<b>Upper:</b>	No information available
<b>Vapour Pressure:</b>	No information available
<b>Density:</b>	No information available
<b>Relative Density:</b>	0.94-0.96
<b>Vapour Density:</b>	No information available
<b>Evaporation Rate:</b>	No information available
<b>Solubility in Water:</b>	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<sub>50</sub>/LC<sub>50</sub> Values Relevant for Classification:**

**99129-21-2 Clethodim**

Oral	LD <sub>50</sub>	1360 mg/kg (rat) (female) 1630 mg/kg (rat) (male)
Dermal	LD <sub>50</sub>	>5000 mg/kg (rat)
Inhalation	LC <sub>50</sub> /4 h	>3.9 mg/l (rat)

**Acute Health Effects**

**Inhalation:**

Inhalation of vapours while handling the concentrate may cause respiratory irritation. Symptoms include 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.

(Contd. on page 5)

# SAFETY DATA SHEET

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(Contd. of page 4)

**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 is not toxic to bees or birds.**Aquatic toxicity:****99129-21-2 Clethodim**

EC <sub>0</sub> /48 h	120 mg/l (daphnia)
EC <sub>50</sub> /120hr	57.8 mg/l (algae)
LC <sub>50</sub> /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:** 19.12.2016

(Contd. on page 6)

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Revision: 19.12.2016

**Product Name: 4FARMERS CLETHODIM 240 EC HERBICIDE**

(Contd. of page 5)

**Abbreviations and acronyms:**

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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

LC<sub>50</sub>: Lethal concentration, 50 percentLD<sub>50</sub>: 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”

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