



4 Farmers ... For Farmers
Printing date 05.08.2016

SAFETY DATA SHEET

According to Safe Work Australia

Revision: 05.08.2016

1 . IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Name: 4FARMERS TRIFLURALIN 480 SELECTIVE 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

Carc. 2 H351 Suspected of causing cancer.

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.



Skin Sens. 1 H317 May cause an allergic skin reaction.

Flam. Liq. 4 H227 Combustible liquid.

Signal Word Danger

Hazard Statements

H227 Combustible liquid.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

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.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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

P273 Avoid release to the environment.

P272 Contaminated work clothing should not be allowed out of the workplace.

P201 Obtain special instructions before use.

SAFETY DATA SHEET

According to Safe Work Australia

Printing date 05.08.2016

Revision: 05.08.2016

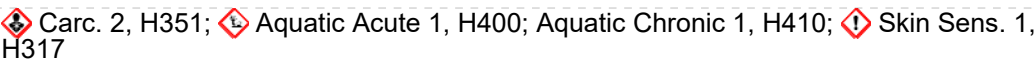
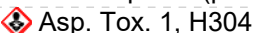
Product Name: 4FARMERS TRIFLURALIN 480 SELECTIVE HERBICIDE

(Contd. of page 1)

- P202 Do not handle until all safety precautions have been read and understood.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
 P321 Specific treatment (see on this label).
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 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.
 P362+P364 Take off 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:**

1582-09-8	Trifluralin 	50%
64742-94-5	Solvent naphtha (petroleum), heavy arom. 	45%

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, hold eyelids open and flush eye continuously with large amounts of 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: High vapour concentrations may cause respiratory irritation, headaches and dizziness, can be anaesthetic and may have other central nervous system effects.

Skin Contact: May cause an allergic skin reaction.

Eye Contact: May cause eye irritation.

Ingestion: The concentrate is of low toxicity if swallowed. May be fatal if swallowed and enters airways.

Aspiration may cause chemical pneumonitis or other lung damage.

5 . FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water fog, foam, dry chemical or carbon dioxide.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon and nitrogen, hydrogen chloride, hydrogen fluoride and possibly cyanides.

(Contd. on page 3)

SAFETY DATA SHEET

According to Safe Work Australia

Printing date 05.08.2016

Revision: 05.08.2016

Product Name: 4FARMERS TRIFLURALIN 480 SELECTIVE HERBICIDE

(Contd. of page 2)

Combustible liquid class 1.

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 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.

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. If spill is too large or absorbent material is not available create a dyke to stop the spill from spreading. Collect the spilled material and place into a suitable container for disposal.

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. 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.

Contaminated work clothing must not be allowed out of the workplace.

Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Protect from temperatures below 5°C, heat, sparks, open flames and other sources of ignition. Keep away from strong oxidising agents, strong acids and strong bases.

8 . EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:**64742-94-5 Solvent naphtha (petroleum), heavy arom.**

Manufacturer recommendation

TWA

15 ppm (as total hydrocarbon)

Engineering Controls:

Maintain air concentration below occupational exposure standards, providing adequate ventilation.

Respiratory Protection:

Use an 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. See Australian/New Zealand Standard AS/NZS 2161 for more information.

When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the

(Contd. on page 4)

SAFETY DATA SHEET

According to Safe Work Australia

Printing date 05.08.2016

Revision: 05.08.2016

Product Name: 4FARMERS TRIFLURALIN 480 SELECTIVE HERBICIDE

(Contd. of page 3)

frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 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:	Orange to red clear
Odour:	Weak characteristic odour
Odour Threshold:	No information available
pH-Value:	6.5 - 8
Melting point/Melting range:	No information available
Initial Boiling Point/Boiling Range:	183 - 210 °C (for solvent)
Flash Point:	75 °C
Flammability:	Combustible Liquid Class 1
Auto-ignition Temperature:	443 °C
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	No information available
Upper:	No information available
Vapour Pressure at 38 °C:	0.5 kPa (for solvent)
Relative Density:	1.065
Vapour Density:	4.8 (solvent)
Evaporation Rate:	No information available
Solubility in Water:	Dispersible in water
% Volatiles by Weight:	40 % w/w

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. May be unstable below 5°C.

Conditions to Avoid: Extreme temperatures, heat, sparks, open flames, hot surfaces and direct sunlight.

Incompatible Materials: Strong oxidising agents, strong acids and strong bases.

Hazardous Decomposition Products:

Oxides of carbon and nitrogen, hydrogen chloride, hydrogen fluoride and possibly cyanides.

11 . TOXICOLOGICAL INFORMATION

Toxicity:**LD₅₀/LC₅₀ Values Relevant for Classification:****1582-09-8 Trifluralin**

Oral	LD ₅₀	5000 mg/kg (mouse) >10000 mg/kg (rat)
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(Contd. on page 5)

SAFETY DATA SHEET

According to Safe Work Australia

Printing date 05.08.2016

Revision: 05.08.2016

Product Name: 4FARMERS TRIFLURALIN 480 SELECTIVE HERBICIDE

(Contd. of page 4)

Acute Health Effects**Inhalation:**

High vapour concentrations may cause respiratory irritation, headaches and dizziness, can be anaesthetic and may have other central nervous system effects.

Skin: May cause an allergic skin reaction.

Eye: May cause eye irritation.

Ingestion:

The concentrate is of low toxicity if swallowed. However, may be fatal if swallowed and enters airways. Aspiration may cause chemical pneumonitis or other lung damage.

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: May cause an allergic skin reaction.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.

Carcinogenicity:

Suspected of causing cancer.

Trifluralin is classified by Safe Work Australia as Carcinogen Category 3.

Trifluralin is classified by IARC as Group 3 - Not classifiable as to its carcinogenicity to humans.

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.

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:

Repeated or prolonged skin contact with the concentrate may cause sensitisation, defatting of the skin and may result in dermatitis.

Existing Conditions Aggravated by Exposure: No information available

Additional toxicological information:

The Australian Acceptable Daily Intake (ADI) for trifluralin for a human is 0.02 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 2.5 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:

Trifluralin is non-toxic to birds and bees.

LD50 >2000 mg/kg (bobwhite quail)

LD50 >100 µg/bee

Aquatic toxicity:

Very Toxic to aquatic life with long lasting effects.

1582-09-8 Trifluralin

LC ₅₀ /48 h	0.245 mg/L (daphnia)
LC ₅₀ /96 h	0.088 mg/L (rainbow trout) (young)
	0.089 mg/L (bluegill) (young)

(Contd. on page 6)

SAFETY DATA SHEET

According to Safe Work Australia

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Revision: 05.08.2016

Product Name: 4FARMERS TRIFLURALIN 480 SELECTIVE HERBICIDE

(Contd. of page 5)

Persistence and Degradability:

Trifluralin degrades in soil at a relatively moderate rate, about 85 - 90% of the material is lost in normal soil in 1/2 to 1 year.

Bioaccumulative Potential: No information available**Mobility in Soil:** No information available

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 Not regulated
IMDG, IATA UN3082

Proper Shipping Name

ADG Not regulated
IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (Trifluralin), MARINE POLLUTANT
IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (Trifluralin)

Dangerous Goods Class

ADG Class: Not regulated
IMDG Class: 9 Miscellaneous dangerous substances and articles.

Packing Group:

ADG Not regulated
IMDG, IATA III

Marine pollutant: Yes

Symbol (fish and tree)

EMS Number: F-A,S-F**Hazchem Code:** .3Z

15 . REGULATORY INFORMATION

Australian Inventory of Chemical Substances:

1582-09-8	Trifluralin
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: 05.08.2016**Prepared by:** MSDS.COM.AU Pty Ltd

www.msds.com.au

Abbreviations and acronyms:

ADG: Australian Dangerous Goods
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association

(Contd. on page 7)

SAFETY DATA SHEET

According to Safe Work Australia

Printing date 05.08.2016

Revision: 05.08.2016

Product Name: 4FARMERS TRIFLURALIN 480 SELECTIVE HERBICIDE

(Contd. of page 6)

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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

LC₅₀: Lethal concentration, 50 percentLD₅₀: 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, Hazard Category 4

Skin Sens. 1: Skin sensitisation, Hazard Category 1

Carc. 2: Carcinogenicity, Hazard Category 2

Asp. Tox. 1: Aspiration hazard, 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 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. MSDS.COM.AU Pty Ltd is not in a position to warrant the accuracy of the data herein. 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.