

4FARMERS FLUTRIAFOL 250 FUNGICIDE

Chemwatch Independent Material Safety Data Sheet

Issue Date: 27-Jul-2009

C9317EC

CHEMWATCH 3724584

Version No:2.0

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

4FARMERS FLUTRIAFOL 250 FUNGICIDE

PRODUCT USE

Agricultural fungicide

SUPPLIER

Company: 4Farmers

Address:

1/70 McDowell Street

Welshpool, 6106

AUS

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Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.



POISONS SCHEDULE

S6

RISK

- Very toxic by inhalation and if swallowed.
- Danger of cumulative effects.
- May cause CANCER.
- Toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.
- May affect fertility*.
- May be harmful to the foetus/embryo*.

* (limited evidence).

SAFETY

- Keep locked up.
- Do not breathe gas/fumes/vapour/spray.
- In case of insufficient ventilation wear suitable respiratory equipment.
- Avoid exposure - obtain special instructions before use.
- To clean the floor and all objects contaminated by this material use water.
- Keep container tightly closed.
- This material and its container must be disposed of in a safe way.
- Keep away from food drink and animal feeding stuffs.
- Take off immediately all contaminated clothing.

- In case of accident or if you feel unwell IMMEDIATELY contact Doctor or Poisons Information Centre (show label if possible).
- Use appropriate container to avoid environmental contamination.
- Avoid release to the environment. Refer to special instructions/Safety data sheets.
- In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
flutriafol	76674-21-0	25
disodium methylenebis(methylnaphthalene)sulfonate	108389-12-4	4
formaldehyde/ naphthalenesulfonic acid, sodium		3
ethylene glycol	107-21-1	4
C.I. Pigment Yellow 13	5102-83-0	0.2
water	7732-18-5	balance

Section 4 - FIRST AID MEASURES

SWALLOWED

- - IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.
- For advice, contact a Poisons Information Centre or a doctor.

EYE

- If this product comes in contact with the eyes:
 - Immediately hold eyelids apart and flush the eye continuously with running water.
 - Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

SKIN

- If skin or hair contact occurs:
 - Flush skin and hair with running water (and soap if available).
 - Seek medical attention in event of irritation.

INHALED

- - If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.

NOTES TO PHYSICIAN

- For acute or short term repeated exposures to ethylene glycol:
 - Early treatment of ingestion is important. Ensure emesis is satisfactory.
 - Test and correct for metabolic acidosis and hypocalcaemia.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- - There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

FIRE FIGHTING

- - Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.

FIRE/EXPLOSION HAZARD

+43cv+43df6+43cz+43ds11#436a

FIRE INCOMPATIBILITY

- - Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

HAZCHEM: None

Personal Protective Equipment

Gas tight chemical resistant suit.

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- - Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.

MAJOR SPILLS

- - Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- - Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.

SUITABLE CONTAINER

- - Polyethylene or polypropylene container.
- Packing as recommended by manufacturer.

STORAGE INCOMPATIBILITY

- - Avoid reaction with oxidising agents.
- Avoid strong acids, bases.

STORAGE REQUIREMENTS

- - Store in original containers.
- Keep containers securely sealed.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	Notes
Australia Exposure Standards	ethylene glycol (Ethylene glycol vapour))	20	52	40	104	Sk
Australia	ethylene		10			Sk

Exposure Standards glycol (Ethylene glycol (particulate))

The following materials had no OELs on our records

- flutriafol: CAS:76674-21-0
- disodium methylenebis(methylnaphthalene)sulfonate: CAS:108389-12-4
- water: CAS:7732-18-5

PERSONAL PROTECTION

RESPIRATOR

Type ANO-P Filter of sufficient capacity

EYE

- - Safety glasses with side shields
- Chemical goggles.

HANDS/FEET

- - Wear chemical protective gloves, eg. PVC.
 - Wear safety footwear or safety gumboots, eg. Rubber.
- Suitability and durability of glove type is dependent on usage. Factors such as:
- frequency and duration of contact,
 - chemical resistance of glove material,

OTHER

- - Employees working with confirmed human carcinogens should be provided with, and be required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area.
- Employees engaged in handling operations involving carcinogens should be provided with, and required to wear and use half-face filter-type respirators with filters for dusts, mists and fumes, or air purifying canisters or cartridges. A respirator affording higher levels of protection may be substituted.
- Prior to each exit from an area containing confirmed human carcinogens, employees should be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers must be identified with suitable labels. For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood.
- Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.
- Overalls.
- P.V.C. apron.

ENGINEERING CONTROLS

- - Employees exposed to confirmed human carcinogens should be authorized to do so by the employer, and work in a regulated area.
- Work should be undertaken in an isolated system such as a "glove-box" . Employees should wash their hands and arms upon completion of the assigned task and before engaging in other activities not associated with the isolated system.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Viscous yellow liquid suspension with faint odour; does mix with water.

PHYSICAL PROPERTIES

Liquid.

Mixes with water.

Toxic or noxious vapours/gas.

Molecular Weight: Not Applicable

Melting Range (°C): <0

Solubility in water (g/L): Miscible

pH (1% solution): Not Available

Volatile Component (%vol): Not Available

Relative Vapour Density (air=1): Not Available

Lower Explosive Limit (%): Not Applicable

Autoignition Temp (°C): Not Applicable

State: Liquid

Boiling Range (°C): Not Available

Specific Gravity (water=1): 1.1 approx

pH (as supplied): Not Available

Vapour Pressure (kPa): Not Available

Evaporation Rate: Not Available

Flash Point (°C): Not Applicable

Upper Explosive Limit (%): Not Applicable

Decomposition Temp (°C): Not Available

Viscosity: Not Available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

■ - Presence of incompatible materials.

- Product is considered stable.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

■ Very toxic by inhalation and if swallowed.

CHRONIC HEALTH EFFECTS

■ May cause CANCER.

■ Danger of cumulative effects.

■ May affect fertility*.

■ May be harmful to the foetus/ embryo*.

■ * (limited evidence).

TOXICITY AND IRRITATION

■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

Oral (Rat) LD50: 1140 mg/kg

Dermal (Rat) LD50: >1000 mg/kg

IRRITATION

FLUTRIAFOL:

■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

Oral (rat) LD50: 1140 mg/kg male

Oral (rat) LD50: 1480 mg/kg female

Dermal (rat) LD50: >1000 mg/kg

Inhalation (rat) LC50: 1.65 mg/l/4h *

Oral (mouse) LD50: 179 mg/kg

Oral (rabbit) LD50: 200 mg/kg

Dermal (rabbit) LD50: 200 mg/kg

IRRITATION

Skin (rabbit): non-irritating *

Eye (rabbit): Mild *

NOEL (90d feeding)* rats 20 mg/kg diet
dogs 5 mg/kg
Non-teratogenic in rats and rabbits
Toxicity Class WHO III; EPA III *
Non-cytogenic in in vivo studies, non-mutagenic in Ames assay *
Not a skin sensitiser in guinea pigs.
* The Pesticide Manual
ADI: 0.01 mg/kg/day
NOEL: 1 mg/kg/day

DISODIUM METHYLENEBIS(METHYLNAPHTHALENE)SULFONATE:

■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

■ Toxicological data are available and well documented for representative toluenesulfonates, xylenesulfonates and cumenesulfonates (including sodium, potassium, ammonium and calcium salts). These data demonstrate that hydrotropes have a low order of acute toxicity by all relevant routes (LC50s range from 100s to 1000s mg/kg), are not genotoxic in vitro or in vivo, show no evidence of a carcinogenic response (or any other systemic toxicity) in 2-year dermal exposure studies, and failed to induce developmental, teratogenic or fertility (sex organ) effects.
No significant acute toxicological data identified in literature search.

ETHYLENE GLYCOL:

■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

Oral (rat) LD50: 4700 mg/kg
Oral (human) LDLo: 398 mg/kg
Oral (child) TDLo: 5500 mg/kg
Inhalation (human) TCLo: 10000 mg/m³
Dermal (rabbit) LD50: 9530 mg/kg
Inhalation (rat) LC50: 50100 mg/m³/8 hr

IRRITATION

Skin (rabbit): 555 mg(open)-Mild
Eye (rabbit): 100 mg/1h - Mild
Eye (rabbit): 1440mg/6h-Moderate
Eye (rabbit): 500 mg/24h - Mild
Eye (rabbit): 12 mg/m³/3D

■ For ethylene glycol:

Ethylene glycol is quickly and extensively absorbed through the gastrointestinal tract. Limited information suggests that it is also absorbed through the respiratory tract; dermal absorption is apparently slow.

[Estimated Lethal Dose (human) 100 ml; RTECS quoted by Orica]

Substance is reproductive effector in rats (birth defects).

Mutagenic to rat cells.

C.I. PIGMENT YELLOW 13:

■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

Oral (rat) LD50: >5,000 mg/kg

IRRITATION

Skin (human): non Irritant

Eye (human): non Irritant

[CCINFO-DOMINION]

■ - NOTE: Detailed analysis of the molecular structure, by various Authorities/ Agencies and in other cases by Chemwatch, indicates that the azo colourant can split off carcinogenic arylamines.

The azo linkage is considered the most labile portion of an azo dye.

SKIN

ethylene glycol	Australia Exposure Standards - Skin	Notes	Sk
ethylene glycol	Australia Exposure Standards - Skin	Notes	Sk

Section 12 - ECOLOGICAL INFORMATION

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Avoid release to the environment.
Refer to special instructions/ safety data sheets.

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
4Farmers Flutriafol 250 Fungicide		No data		
flutriafol		No data		
disodium		No data		
methylenebis(methylnaphthalene)sulfonate		No data		
ethylene glycol		No data		
C.I. Pigment Yellow 13		No data		
water		No data		

Section 13 - DISPOSAL CONSIDERATIONS

- - Containers may still present a chemical hazard/ danger when empty.
 - Return to supplier for reuse/ recycling if possible.
- Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area.
- DO NOT allow wash water from cleaning or process equipment to enter drains.
 - It may be necessary to collect all wash water for treatment before disposal.
 - Recycle wherever possible.
 - Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.

Section 14 - TRANSPORTATION INFORMATION

HAZCHEM: None (ADG7)

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADG7, UN, IATA, IMDG

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE: S6

REGULATIONS

Regulations for ingredients

flutriafol (CAS: 76674-21-0) is found on the following regulatory lists;

"Australia Hazardous Substances", "Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6"

ethylene glycol (CAS: 107-21-1) is found on the following regulatory lists;

"Australia Exposure Standards", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Standard for the Uniform

Scheduling of Drugs and Poisons (SUSDP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 5", "Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD Representative List of High Production Volume (HPV) Chemicals"

C.I. Pigment Yellow 13 (CAS: 5102-83-0) is found on the following regulatory lists;
"Australia Inventory of Chemical Substances (AICS)", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD Representative List of High Production Volume (HPV) Chemicals"

water (CAS: 7732-18-5) is found on the following regulatory lists;
"Australia Inventory of Chemical Substances (AICS)", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "OECD Representative List of High Production Volume (HPV) Chemicals"

No data for 4Farmers Flutriafol 250 Fungicide (CW: 3724584)

No data for disodium methylenebis(methylnaphthalene)sulfonate (CAS: , 108389-12-4)

Section 16 - OTHER INFORMATION

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:
www.chemwatch.net/references.

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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This is the end of the MSDS.