



# Safety Data Sheet

according to WHS Regulations

Printing date 31.08.2020

Revision: 31.08.2020

## 1 Identification

**Product Name: TITAN FLUTRIAFOL 25/CYPERMETHRIN 4 LIQUID SEED DRESSING**

**Other Means of Identification:** Mixture

**Recommended Use of the Chemical and Restriction on Use:** Seed dressing.

**Details of Manufacturer or Importer:**

Titan Ag  
Princes Street Marina,  
Suite 15/16 Princes Street,  
Newport NSW 2106

**Phone Number:** 02 9999 6655

**Emergency telephone number:** 02 9999 6655

## 2 Hazard(s) 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

Toxic To Reproduction 1B                      H360 May damage fertility or the unborn child.



Acute Toxicity (Oral) 4	H302 Harmful if swallowed.
Skin Corrosion/Irritation 2	H315 Causes skin irritation.
Serious Eye Damage/Irritation 2A	H319 Causes serious eye irritation.
STOT SE 3	H335 May cause respiratory irritation.
Flammable Liquids 4	H227 Combustible liquid.
Aquatic Chronic 3	H412 Harmful to aquatic life with long lasting effects.

**Signal Word** Danger

**Hazard Statements**

H227 Combustible liquid.  
H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H360 May damage fertility or the unborn child.  
H335 May cause respiratory irritation.  
H412 Harmful to aquatic life with long lasting effects.

**Precautionary Statements**

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P210 Keep away from flames and hot surfaces. No smoking.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.

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P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330	Rinse mouth.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P321	Specific treatment (see on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use for extinction: CO <sub>2</sub> , powder or water spray.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
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:

CAS: 34590-94-8	Dipropylene glycol monomethyl ether Flammable Liquids 4, H227	30 - 60%
CAS: 107-21-1	1,2-Ethanediol ⚠ Acute Toxicity (Oral) 4, H302; STOT SE 3, H335	49.5%
CAS: 872-50-4	N-methyl-2-pyrrolidone ⚠ Toxic To Reproduction 1B, H360; ⚠ Skin Corrosion/Irritation 2, H315; Serious Eye Damage/Irritation 2A, H319; STOT SE 3, H335; Flammable Liquids 4, H227	0-10%
CAS: 76674-21-0	Flutriafol ⚠ Acute Toxicity (Oral) 4, H302; Acute Toxicity (Dermal) 4, H312	2.5%
CAS: 52315-07-8	Cypermethrin cis/trans +/-40/60 ⚠ Aquatic Chronic 1, H410; ⚠ Acute Toxicity (Oral) 4, H302; Skin Corrosion/Irritation 2, H315; Skin Sensitisation 1, H317; STOT SE 3, H335	0.4%

### 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 rinse with water for at least 15 minutes. Seek medical attention if symptoms occur.

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**Ingestion:**

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Give a glass of water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

**Symptoms Caused by Exposure:**

Inhalation: May cause respiratory irritation, headache and drowsiness.

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye irritation.

Ingestion: Harmful if swallowed. May cause intoxication leading to vomiting, cyanosis, headache, muscle tenderness, convulsions and unconsciousness.

**Medical Attention and Special Treatment:**

Ethyl alcohol can be used to treat exposure to ethylene glycol. Administer ethyl alcohol to maintain blood levels of 100 mg/dL.

4-Methylpyrazole is also a recognised antidote for ethylene glycol.

## 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 and hydrogen fluoride.

This product is not flammable, but may burn or decompose in a fire.

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.

**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.

## 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.

Clean equipment with methylated spirits, not water.

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 in original container. Keep container closed when not in use.

Protect from extreme heat and direct sunlight. Keep away from strong oxidising agents.

Treated seed should be kept apart from untreated seed. Containers of treated seed must be clearly marked.

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## 8 Exposure Controls and Personal Protection

<b>Exposure Standards:</b>	
<b>CAS: 34590-94-8 Dipropylene glycol monomethyl ether</b>	
WES	TWA: 308 mg/m <sup>3</sup> , 50 ppm Sk
<b>CAS: 107-21-1 1,2-Ethanediol</b>	
WES	STEL: 104** mg/m <sup>3</sup> , 40** ppm TWA: 10* 52** mg/m <sup>3</sup> , 20** ppm Sk,*particulate;**vapour
<b>CAS: 872-50-4 N-methyl-2-pyrrolidone</b>	
WES	STEL: 309 mg/m <sup>3</sup> , 75 ppm TWA: 103 mg/m <sup>3</sup> , 25 ppm Sk

**Engineering Controls:** Ensure adequate ventilation of the working area.

**Respiratory Protection:** Respiratory protection is not required under normal use conditions.

**Skin Protection:** Skin protection is not required under normal use conditions.

**Eye and Face Protection:** Eye protection is not required under normal use conditions.

## 9 Physical and Chemical Properties

**Appearance:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Red
<b>Odour:</b>	No information available
<b>Odour Threshold:</b>	No information available
<b>pH-Value:</b>	No information available
<b>Melting point/freezing point:</b>	No information available
<b>Initial Boiling Point/Boiling Range:</b>	No information available
<b>Flash Point:</b>	82.5 °C
<b>Flammability:</b>	Combustible
<b>Auto-ignition Temperature:</b>	No information available
<b>Decomposition Temperature:</b>	No information available
<b>Explosion Limits:</b>	
<b>Lower:</b>	No information available
<b>Upper:</b>	No information available
<b>Vapour Pressure:</b>	No information available
<b>Relative Density:</b>	1.05
<b>Vapour Density:</b>	No information available
<b>Evaporation Rate:</b>	No information available
<b>Solubility in Water:</b>	Soluble
<b>Partition Coefficient (n-octanol/water):</b>	No information available
<b>Viscosity:</b>	No information available

## 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:** Extreme heat and direct sunlight.

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**Incompatible Materials:** Strong oxidising agents.**Hazardous Decomposition Products:** Oxides of carbon and nitrogen and hydrogen fluoride.

## 11 Toxicological Information

**Toxicity:****LD50/LC50 Values Relevant for Classification:****CAS: 34590-94-8 Dipropylene glycol monomethyl ether**

Oral	LD50	5,135 mg/kg (rat)
Dermal	LD50	>19,000 mg/kg (rabbit)

**CAS: 107-21-1 1,2-Ethanediol**

Oral	LD50	5,840 mg/kg (rat)
Dermal	LD50	9,530 mg/kg (rabbit)

**CAS: 872-50-4 N-methyl-2-pyrrolidone**

Oral	LD50	3,914 mg/kg (rat)
Dermal	LD50	8,000 mg/kg (rabbit)

**CAS: 76674-21-0 Flutriafol**

Oral	LD50	1,140-1,480 mg/kg (rat)
Dermal	LD50	>1,000 mg/kg (mouse)
Inhalation	LC50/4 h	1.65 mg/l (rat)

**CAS: 52315-07-8 Cypermethrin cis/trans +/-40/60**

Oral	LD50	82-779 mg/kg (mice)
		150-500 mg/kg (rat)
Dermal	LD50	1,600 mg/kg (rat)
		>2,000 mg/kg (rabbit)
Inhalation	LC50/4 h	>0.2 mg/l (rat)

**Acute Health Effects****Inhalation:** May cause respiratory irritation, headache and drowsiness.**Skin:** Causes skin irritation.**Eye:** Causes serious eye irritation.**Ingestion:**

Harmful if swallowed. May cause intoxication leading to vomiting, cyanosis, headache, muscle tenderness, convulsions and unconsciousness.

**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:** May damage fertility or the unborn child.**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:** Based on classification principles, the classification criteria are not met.

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**Chronic Health Effects:** Prolonged skin contact may cause defatting leading to dermatitis.**Existing Conditions Aggravated by Exposure:** No information available**Additional toxicological information:**

The Australian Acceptable Daily Intake (ADI) for flutriafol for a human is 0.01 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL 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.

The ADI for  $\alpha$ -cypermethrin for a human is 0.05 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 4.7 mg/kg/day.

(Ref: Australian Pesticides and Veterinary Medicines Authority, 'Acceptable Daily Intakes for Agricultural and Veterinary Chemicals', 2020).

## 12 Ecological Information

**Ecotoxicity:**

Do not feed treated seed to wildlife or domestic animals.

Flutriafol:

LD50 &gt;5000 mg/kg (mallard ducks)

Cypermethrin:

LD50 &gt;10000 mg/kg (mallard ducks)

**Aquatic toxicity:**

Harmful to aquatic life with long lasting effects.

**CAS: 107-21-1 1,2-Ethanediol**

EC50/48 h 49,000 mg/l (daphnia)

EC50/96 h 6,500-13,000 mg/l (green algae)

LC50/96 h 22,810 mg/l (rainbow trout)

**CAS: 872-50-4 N-methyl-2-pyrrolidone**

EC50/24 h &gt;1,000 mg/l (daphnia)

EC50/72 h &gt;500 mg/l (green algae)

LC50/96 h 1,072 mg/l (fathead minnow)

&gt;5,000 mg/l (rainbow trout)

**CAS: 76674-21-0 Flutriafol**

EC50 78 mg/l (daphnia)

LC50 77 mg/l (mirror carp)

61 mg/l (rainbow trout)

**CAS: 52315-07-8 Cypermethrin cis/trans +/-40/60**

LC50/96 h 0.0018 mg/l (bluegill)

0.0002 mg/l (daphnia)

0.0082 mg/l (rainbow trout)

**Persistence and Degradability:**

Average half-life in soil for cypermethrin is 60 days.

Average half-life in soil for flutriafol is 5 days.

**Bioaccumulative Potential:** Bioaccumulation is not expected to occur.**Mobility in Soil:** Low mobility in soil.**Other adverse effects:** No further relevant information available.

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### 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:**

CAS: 34590-94-8	Dipropylene glycol monomethyl ether
CAS: 107-21-1	1,2-Ethanediol
CAS: 872-50-4	N-methyl-2-pyrrolidone
CAS: 52315-07-8	Cypermethrin cis/trans +/-40/60

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

Poisons Schedule: 6

**Australia: Priority Existing Chemicals**

None of the ingredients is listed.

### 16 Other Information

**Date of Preparation or Last Revision:** 31.08.2020

**Prepared by:** MSDS.COM.AU Pty Ltd

[www.msds.com.au](http://www.msds.com.au)

**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

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)

Flammable Liquids 4: Flammable liquids – Category 4

Acute Toxicity (Oral) 4: Acute toxicity - oral – Category 4

Skin Corrosion/Irritation 2: Skin corrosion/irritation – Category 2

Serious Eye Damage/Irritation 2A: Serious eye damage/eye irritation – Category 2A

Skin Sensitisation 1: Skin sensitisation, Hazard Category 1

Toxic To Reproduction 1B: Reproductive toxicity – Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Chronic 1: Hazardous to the aquatic environment, long-term (Chronic). Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment, long-term (Chronic). Category 3

**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 - May 2018”

The information contained in this safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. Titan Ag 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

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