

## 1 Identification

**Product Name:** THIDIAZURON PLUS DIURON COTTON DEFOLIANT by TITAN

**Other Means of Identification:** Mixture

**Recommended Use of the Chemical and Restriction on Use:** Cotton defoliant

**Details of Manufacturer or Importer:**

Titan Ag Pty Ltd  
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

Carcinogenicity 2 H351 Suspected of causing cancer.



environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

**Signal Word** Warning

**Hazard Statements**

H351 Suspected of causing cancer.

H410 Very toxic 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.

P273 Avoid release to the environment.

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

P308+P313 IF exposed or concerned: Get medical advice/attention.

P391 Collect spillage.

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.

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| Hazardous Components: |  |     |
|-----------------------|--|-----|
| 51707-55-2            | Thidiazuron<br>⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410  | 12% |
| 330-54-1              | Diuron(ISO)<br>⚠ Carcinogenicity 2, H351; STOT RE 2, H373; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Toxicity (Oral) 4, H302 | 6%  |

## 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 several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention if symptoms occur.

### 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.

Skin Contact: May cause skin irritation.

Eye Contact: May cause serious eye irritation.

Ingestion: Swallowing large amounts of concentrate may cause nausea and vomiting.

## 5 Fire Fighting Measures

**Suitable Extinguishing Media:** Use fire extinguishing methods suitable to surrounding conditions.

### Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon and nitrogen.

This product will not burn.

### 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 an approved respiratory protection and protective clothing. 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 labelled container for disposal. Decontaminate spill area with detergent and water.

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### 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.

**Conditions for Safe Storage:**

Store in a cool, dry and well ventilated area. Keep in original container, tightly closed when not in use. Protect from direct sunlight. Keep away from strong oxidising agents.

### 8 Exposure Controls and Personal Protection

**Exposure Standards:****330-54-1 Diuron(ISO)**WES TWA: 10 mg/m<sup>3</sup>

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

**Respiratory Protection:**

Use 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:**

PVC or rubber 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 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:**

|   |                          |
|---|--------------------------|
| <b>Form:</b>                                | Liquid                   |
| <b>Colour:</b>                              | Beige                    |
| <b>Odour:</b>                               | Odourless                |
| <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> | Undetermined.            |
| <b>Flash Point:</b>                         | No information available |
| <b>Flammability:</b>                        | Does not burn            |
| <b>Auto-ignition Temperature:</b>           | No information available |
| <b>Decomposition Temperature:</b>           | No information available |

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|                                   |                          |
|-----------------------------------|--------------------------|
| <b>Explosion Limits:</b>          |                          |
| <b>Lower:</b>                     | No information available |
| <b>Upper:</b>                     | No information available |
| <b>Vapour Pressure:</b>           | Not determined.          |
| <b>Relative Density at 20 °C:</b> | 1.01                     |
| <b>Vapour Density:</b>            | No information available |
| <b>Evaporation Rate:</b>          | No information available |
| <b>Solubility in Water:</b>       | Completely soluble       |

## 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:** Direct sunlight.

**Incompatible Materials:** Strong oxidising agents.

**Hazardous Decomposition Products:** Oxides of carbon and nitrogen.

## 11 Toxicological Information

**Toxicity:**

**LD<sub>50</sub>/LC<sub>50</sub> Values Relevant for Classification:**

**51707-55-2 Thidiazuron**

|            |                       |   |
|------------|-----------------------|---|
| Oral       | LD <sub>50</sub>      | >4000 mg/kg (rat)<br>>5000 mg/kg (mouse)  |
| Dermal     | LD <sub>50</sub>      | >1000 mg/kg (rat)<br>>4000 mg/kg (rabbit) |
| Inhalation | LC <sub>50</sub> /4 h | >2.3 mg/L (rat)                           |

### Acute Health Effects

**Inhalation:** May cause respiratory irritation.

**Skin:** May cause skin irritation.

**Eye:** May cause eye irritation.

**Ingestion:** Swallowing large amounts of concentrate may cause nausea and vomiting.

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

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

### Carcinogenicity:

Suspected of causing cancer.

Diuron(ISO) is classified by Safe Work Australia as Carcinogen Category 3.

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.

### Specific Target Organ Toxicity (STOT) - Repeated Exposure:

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

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**Aspiration Hazard:** Based on classification principles, the classification criteria are not met.**Chronic Health Effects:** No information available**Existing Conditions Aggravated by Exposure:** No information available**Additional toxicological information:**

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

The Australian Acceptable Daily Intake (ADI) for diuron for a human is 0.007 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 0.7 mg/kg/day.

(Ref: Australian Pesticides and Veterinary Medicines Authority, 'Acceptable Daily Intakes for Agricultural and Veterinary Chemicals', 2017).

## 12 Ecological Information

**Ecotoxicity:**

Birds:

LD50 (Japanese quail): 3160 mg/kg

LD50 (Bobwhite quail): 5000 mg/kg

LD50 (Mallard): 5000 mg/kg

Worms:

LD50 (Worms): 1400 mg/kg

Toxic to birds. Not toxic to bees.

**Aquatic toxicity:****51707-55-2 Thidiazuron**LC<sub>50</sub> 1000 mg/L (bluegill)

1000 mg/L (rainbow trout)

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

**Persistence and Degradability:**

The half-life of the product in soil is up to 144 days in aerobic environments and 28 days in anaerobic environments.

**Bioaccumulative Potential:** No information available**Mobility in Soil:** The product has low mobility, as it is strongly adsorbed by soil.**Other adverse effects:** 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** Not regulated**Proper Shipping Name** Not regulated**Dangerous Goods Class** Not regulated**Packing Group:** Not regulated

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### 15 Regulatory Information

**Australian Inventory of Chemical Substances:**

330-54-1 | Diuron(ISO)

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

Not Scheduled.

### 16 Other Information

**Date of Preparation or Last Revision:** 12.12.2017
**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)

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

Carcinogenicity 2: Carcinogenicity – Category 2

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

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 - February 2016”

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 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.