

# Safety Data Sheet

according to WHS Regulations

Printing date 23.03.2022

Revision: 23.03.2022

## 1 Identification

**Product Name: Titan Besuto 850 WG Herbicide****Other Means of Identification:** Mixture**Recommended Use of the Chemical and Restriction on Use:** Agricultural herbicide**Details of Manufacturer or Importer:**Titan Ag Pty Ltd  
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.  
Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition), IATA and IMDG/IMSBC.  
Not subject to the ADG Code when transported in Australia by Road or Rail in packagings that do not incorporate a receptacle exceeding 500 kg(L); or IBCs (refer to SP AU01). However if transported by Air or Sea, this provision does not apply.



Health hazard

Carcinogenicity 2  
STOT RE 2

H351 Suspected of causing cancer.

H373 May cause damage to the kidneys, the liver, the heart and the bladder through prolonged or repeated exposure.



Corrosion

Serious Eye Damage/Irritation 1 H318 Causes serious eye damage.



Environment

Aquatic Chronic 1

H410 Very toxic to aquatic life with long lasting effects.

**Signal Word** Danger**Hazard Statements**

H318 Causes serious eye damage.

H351 Suspected of causing cancer.

H373 May cause damage to the kidneys, the liver, the heart and the bladder through prolonged or repeated exposure.

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.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

(Contd. on page 2)

# Safety Data Sheet

## according to WHS Regulations

Printing date 23.03.2022

Revision: 23.03.2022

**Product Name: Titan Besuto 850 WG Herbicide**

(Contd. of page 1)

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
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.

#### Hazardous Components:

CAS: 447399-55-5	Pyroxasulfone	85%
	☠ Carcinogenicity 2, H351; STOT RE 2, H373; ☠ Aquatic Chronic 1, H410	
CAS: 577-11-7	Docusate sodium	1-3%
	☠ Serious Eye Damage/Irritation 1, H318; ☠ Skin Corrosion/Irritation 2, H315	
CAS: 61790-53-2	Diatomaceous earth (Silica-Amorphous)	≤2.5%

### 4 First Aid Measures

**Inhalation:** If inhaled, remove to fresh air. 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, if available with polyethylene glycol 400, subsequently rinse with water. Seek medical attention if symptoms persist.

#### Eye Contact:

In case of eye contact, rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention if symptoms persist.

#### Ingestion:

If swallowed, do not induce vomiting. Immediately rinse mouth with 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: Causes serious eye damage.

Ingestion: May cause gastrointestinal irritation, nausea, diarrhoea and vomiting.

### 5 Fire Fighting Measures

**Suitable Extinguishing Media:** Use water spray, foam, carbon dioxide (CO<sub>2</sub>) or sand.

#### Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon, oxides of nitrogen, oxides of sulfur, hydrogen fluoride and hydrogen cyanide (hydrocyanic acid).

Product is not flammable.

Containers close to fire should be removed only if safe to do so. Use water spray to cool fire exposed containers.

Prevent run-off from fire fighting entering drains or water courses.

HAZCHEM Code: 2Z

(Contd. on page 3)

# Safety Data Sheet

## according to WHS Regulations

Printing date 23.03.2022

Revision: 23.03.2022

**Product Name: Titan Besuto 850 WG Herbicide**

(Contd. of page 2)

**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 dust/particulate filter respirator and full protective clothing. Evacuate all non-essential personnel from affected area. Do not breathe dust. Ensure adequate ventilation. Avoid generating dust.

**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 dust. 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 direct sunlight, heat, sparks, open flames and other sources of ignition. Keep out of reach of children. Keep away from food, drink and animal feedingsuffs. Keep away from strong acids and strong bases.

**8 Exposure Controls and Personal Protection****Exposure Standards:****CAS: 61790-53-2 Diatomaceous earth (Silica-Amorphous)**WES | TWA: 10 mg/m<sup>3</sup>**Engineering Controls:**

Ensure adequate ventilation of the working area, keeping airborne concentrations below occupational exposure standards.

**Respiratory Protection:**

Use an approved vapour/dust 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 or nitrile 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, including two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently (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.

(Contd. on page 4)

# Safety Data Sheet

according to WHS Regulations

Printing date 23.03.2022

Revision: 23.03.2022

**Product Name: Titan Besuto 850 WG Herbicide**

(Contd. of page 3)

**Eye and Face Protection:**

Safety glasses with top and side shields or chemical goggles. See Australian Standards AS/NZS 1336 and 1337 for more information.

## 9 Physical and Chemical Properties

**Appearance:**

<b>Form:</b>	Water-dispersible, cylindrical granules
<b>Colour:</b>	Light brown
<b>Odour:</b>	No information available
<b>Odour Threshold:</b>	No information available
<b>pH-Value at 23 °C:</b>	7-10 (1% in water)
<b>Melting point/freezing point:</b>	No information available
<b>Initial Boiling Point/Boiling Range:</b>	No information available
<b>Flash Point:</b>	No information available
<b>Flammability:</b>	Product is not flammable
<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 at 25 °C:</b>	0.0000024 Pa
<b>Relative Density:</b>	No information available
<b>Vapour Density:</b>	No information available
<b>Evaporation Rate:</b>	No information available
<b>Solubility in Water:</b>	No information available
<b>Partition Coefficient (n-octanol/water) at 25 °C:</b>	log Pow 2.39 (pH 8.7)

## 10 Stability and Reactivity

**Possibility of Hazardous Reactions:** No dangerous reactions known under conditions of normal use.

**Chemical Stability:** Stable at ambient temperature and under normal conditions of storage and use.

**Conditions to Avoid:** Direct sunlight, heat, sparks, open flames and other sources of ignition.

**Incompatible Materials:** Strong acids and strong bases.

**Hazardous Decomposition Products:**

Oxides of carbon, oxides of nitrogen, oxides of sulfur, hydrogen fluoride and hydrogen cyanide (hydrocyanic acid).

## 11 Toxicological Information

**Toxicity:****LD50/LC50 Values:****CAS: 447399-55-5 Pyroxasulfone**

Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalation	LC50/4 h	>6.56 mg/l (rat)

**CAS: 577-11-7 Docusate sodium**

Oral	LD50	1,900 mg/kg (rat)
	LD50	>10,000 mg/kg (rabbit)

(Contd. on page 5)

# Safety Data Sheet

## according to WHS Regulations

Printing date 23.03.2022

Revision: 23.03.2022

**Product Name: Titan Besuto 850 WG Herbicide**

(Contd. of page 4)

**Acute Health Effects****Inhalation:** May cause respiratory irritation.**Skin:** May cause skin irritation.**Eye:** Causes serious eye damage.**Ingestion:** May cause gastrointestinal irritation, nausea, diarrhoea and vomiting.**Skin Corrosion / Irritation:** Based on classification principles, the classification criteria are not met.**Serious Eye Damage / Irritation:** Causes serious eye damage.**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.**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:**

May cause damage to organs (liver, kidney, bladder, heart) through prolonged or repeated exposure.

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

The Australian Acceptable Daily Intake (ADI) for pyroxasulfone 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 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: Australian Pesticides and Veterinary Medicines Authority, 'Acceptable Daily Intakes for Agricultural and Veterinary Chemicals', 2021).

## 12 Ecological Information

**Ecotoxicity:****Aquatic toxicity:**

Very toxic to aquatic life with long lasting effects.

**CAS: 447399-55-5 Pyroxasulfone**

LD50 &gt;2,250 mg/kg (bobwhite quail)

EC50/48 h &gt;4.4 mg/l (daphnia)

EC50/96 h 0.00079 mg/l (algae)

LC50/96 h &gt;2.8 mg/l (bluegill)

&gt;2.2 mg/l (rainbow trout)

**CAS: 577-11-7 Docusate sodium**

EC50/48 h 6.6 mg/l (daphnia)

EC50/96 h &gt;100 mg/l (algae)

**Persistence and Degradability:** Not rapidly biodegradable (pyroxasulfone).**Bioaccumulative Potential:** Pyroxasulfone does not bioaccumulate.**Mobility in Soil:** Pyroxasulfone is mobile in soil.

(Contd. on page 6)

# Safety Data Sheet

## according to WHS Regulations

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Revision: 23.03.2022

**Product Name: Titan Besuto 850 WG Herbicide**

(Contd. of page 5)

**Other adverse effects:** No further relevant information available.

### 13 Disposal Considerations

**Disposal Methods and Containers:**

Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. Do not burn empty containers or product.

**Special Precautions for Landfill or Incineration:**

Please consult your state Land Waste Management Authority for more information.

### 14 Transport Information

<b>UN Number</b>	UN3077
<b>ADG, IMDG, IATA</b>	
<b>Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Pyroxasulfone)
<b>ADG, IATA</b>	
<b>IMDG</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Pyroxasulfone), MARINE POLLUTANT
<b>Dangerous Goods Class</b>	
<b>ADG Class:</b>	9
<b>Packing Group:</b>	
<b>ADG, IMDG, IATA</b>	III
<b>Marine pollutant:</b>	Symbol (fish and tree)
<b>EMS Number:</b>	F-A,S-F
<b>Hazchem Code:</b>	2Z
<b>Special Provisions:</b>	274, 331, 335, 375, AU01
<b>Transport/Additional information:</b>	Not subject to the ADG Code when transported by road or rail in packagings that do not incorporate a receptacle exceeding 500 kg(L) or IBCs. (refer to SP AU01)
<b>Excepted quantities (EQ):</b>	E1
<b>Limited Quantities:</b>	5 kg
<b>Packagings &amp; IBCs - Packing Instruction:</b>	P002, IBC08, LP02
<b>Packagings &amp; IBCs - Special Packing Provisions:</b>	PP12, B3
<b>Portable Tanks &amp; Bulk Containers - Instructions:</b>	T1, BK2, BK3
<b>Portable Tanks &amp; Bulk Containers - Special Provisions:</b>	TP33

### 15 Regulatory Information

**Australian Inventory of Industrial Chemicals:**

All components are on the inventory, or in compliance with the inventory.

(Contd. on page 7)

# Safety Data Sheet

## according to WHS Regulations

Printing date 23.03.2022

Revision: 23.03.2022

**Product Name: Titan Besuto 850 WG Herbicide**

(Contd. of page 6)

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

Poisons Schedule: 6

### 16 Other Information

**Date of Preparation or Last Revision:** 23.03.2022**Prepared by:** MSDS.COM.AU Pty Ltd[www.msds.com.au](http://www.msds.com.au)**Abbreviations and acronyms:**

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

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)

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

Serious Eye Damage/Irritation 1: Serious eye damage/eye irritation – Category 1

Carcinogenicity 2: Carcinogenicity – Category 2

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

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 - July 2020”

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