

SAFETY DATA SHEET

SECTION 1

IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **Apparent Disturb 875 WG Herbicide**

Other Names: Terbutylazine. Group C Herbicide. Substituted urea.
Use: An agricultural herbicide for use in sorghum and TT tolerant canola.
Company: Titan Ag Pty Ltd
Address: 15/16 Princes Street, Newport NSW 2106
ACN/ABN: 122 081 574
Telephone Number: 03 9822 1321
Email: enquiries@apparentag.com.au
Emergency Contact: 0411 227 338

SECTION 2

HAZARDS IDENTIFICATION

**Classified as hazardous according to criteria of Safe Work Australia.
Not classified as a Dangerous Good according to the ADG Code.**

Not subjected to the ADG code when transported in Australia by Road or Rail in packages 500 kg (L) or less; or in IBC's (refer to SP AU01). However, if transported by Air or Sea, this provision does not apply. Then the product is classed as a Dangerous Good (Class 9 Environmentally Hazardous) by IATA and IMDG respectively. See Section 14 of this SDS for details.

Globally Harmonised System (GHS) classification of the substance/mixture:

Acute Toxicity Oral – Hazard Category 4.
Specific Target Organ toxicity - repeated exposure - Hazard Category 2.
Hazardous to aquatic environment Short term/Chronic - Hazard Category 1.

Signal Word: WARNING.

Hazard Statements:

H302 Harmful if swallowed.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long-lasting effects.

Precautionary statements:

Prevention:

P260 Do not breathe dust.
P264 Wash hands, arms and face thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.

Response:

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if feel unwell.
P314 Get medical advice/attention if you feel unwell.
P391 Collect spillage.

Disposal:

P501 Dispose of contents/container in accordance with national regulations.

Pictograms:



SECTION 3**COMPOSITION/INFORMATION ON INGREDIENTS****Ingredients:**

CHEMICAL	CAS NUMBER	PROPORTION
Terbutylazine	5915-41-3	87.5% w/w
Other ingredients determined not to be hazardous		Balance

SECTION 4**FIRST AID MEASURES****FIRST AID**

- Ingestion:** If swallowed do NOT induce vomiting. Wash mouth out with water. If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 131 126.
- Eye contact:** Gently brush granules away and immediately rinse with water until product is removed. If irritation occurs and persists, seek medical advice.
- Skin contact:** Gently brush granules away and wash area with running water and mild soap. If irritation occurs and persists, seek medical advice. Remove contaminated clothing and launder before re-use.
- Inhalation:** Remove to fresh air and observe until recovered. If effects persist, seek medical advice.
- Advice to Doctor:** Treat symptomatically. No specific antidote.

SECTION 5**FIRE FIGHTING MEASURES**

Specific Hazard: Generally considered a low risk.

Extinguishing media: Use extinguishing media suited to burning material. If waterfog or fine water spray is used, ensure all runoff is contained. Contain all runoff.

Hazards from combustion products: Product will decompose when burnt and will emit toxic fumes. Fire-fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or smoke. There is a low risk of explosion if commercial quantities are involved in a fire.

Precautions for fire-fighters and special protective equipment: Isolate fire area. Evacuate downwind residents. Wear full protective clothing and self-contained breathing apparatus. Do not breathe smoke or vapours generated.

SECTION 6**ACCIDENTAL RELEASE MEASURES**

Emergency procedures: In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length chemical-resistant gloves and a half face respirator with dust cartridge or canister.

In the case of spillage, stop leak if safe to do so, and contain spill. Prevent spillage entering drains or watercourses. Contain and absorb spilled material with absorbent material such as sand, clay, cat litter or material such as vermiculite. Collect recoverable product for use as labelled on the product. Vacuum, shovel or pump contaminated spilled material into an approved container and dispose of waste as per the requirements of Local or State Waste Management Authorities. Keep out animals and unprotected persons. Launder protective clothing before storage or re-use.

If a significant quantity of material enters drains, advise emergency services. Keep out animals and unprotected persons. Thoroughly launder protective clothing before storage or re-use.

Material and methods for containment and cleanup procedures: To clean spill area, tools and equipment, wash with a solution of soap, water and acetic acid/vinegar. Follow this with a neutralisation step of washing the area with a bleach or caustic soda ash solution. Finally, wash with a strong soap and water solution. Absorb, as above, any excess liquid and add both solutions to the drums of waste already collected.

SECTION 7**HANDLING AND STORAGE**

Precautions for Safe Handling: May irritate the eyes. Avoid contact with eyes and skin. When opening the container, mixing and loading and preparing spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length chemical-resistant gloves and a half face respirator with dust cartridge or canister. When preparing the product for use by boom spray equipment, wear cotton overalls, over normal clothing, buttoned to the neck and wrist and a washable hat and elbow length chemical-resistant gloves and a half face respirator with dust cartridge or canister. When using the prepared spray wear cotton overalls buttoned to the neck and wrist (or equivalent clothing). In addition, when using the prepared spray by lay-by application equipment wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat, elbow-length chemical resistant gloves and a half face respirator with dust cartridge or canister. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use wash gloves, contaminated clothing, and respirator and if rubber, wash with detergent and warm water.

Conditions for Safe Storage: Store in the closed original container in a dry, cool well-ventilated area out of direct sunlight. DO NOT store near food, feedstuffs, fertilisers or seed. Do not dispose of granules on-site.

SECTION 8**EXPOSURE CONTROLS / PERSONAL PROTECTION****Exposure Guidelines:**

Exposure guidelines have not been established for this product by Safe Work Australia.

Biological Limit Values:

No biological limit allocated.

Engineering controls:

Keep containers closed when not in use. No special engineering controls are required, however make sure that the work environment remains clean and that dusts are minimised.

Personal Protective Equipment (PPE):

General: When opening the container, mixing and loading and preparing spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length chemical-resistant gloves and a half face respirator with dust cartridge or canister. When preparing the product for use by boom spray equipment, wear cotton overalls, over normal clothing, buttoned to the neck and wrist and a washable hat and elbow length chemical-resistant gloves and a half face respirator with dust cartridge or canister. When using the prepared spray wear cotton overalls buttoned to the neck and wrist (or equivalent clothing). In addition, when using the prepared spray by lay-by application equipment wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat, elbow-length chemical resistant gloves and a half face respirator with dust cartridge or canister.

Personal Hygiene: May irritate the eyes. Avoid contact with eyes and skin. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use wash gloves, contaminated clothing, and respirator and if rubber, wash with detergent and warm water. Clean water should be available for washing in case of eye or skin contamination. Wash skin before eating, drinking or smoking. Shower at the end of the workday.

SECTION 9**PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	Granules (no data on colour).
Odour:	No data available.
Boiling point:	No data available.
Freezing point:	Solid at room temperature.
Specific Gravity:	No data available.
Solubility in Water:	Disperses in water.
pH:	No data available.
Flammability:	Not flammable.
Flashpoint (°C):	Not flammable.
Poisons Schedule:	This product is a schedule 6 (S6) poison.
Formulation type:	Water Dispersible Granule (WG).

SECTION 10**STABILITY AND REACTIVITY**

Chemical Stability: Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.

Conditions to avoid: Keep cool and dry until ready to use. Protect from sunlight.

Incompatible materials: Strong acids and alkalis.

Hazardous decomposition products: This product will decompose when burnt. Carbon dioxide, carbon monoxide, nitrogen and its compounds and oxides, and smoke compounds.

Hazardous reactions: Polymerisation is unlikely.

SECTION 11**TOXICOLOGICAL INFORMATION**

No specific data is available for this product as no toxicity tests have been conducted on this product. Information presented is our best judgement based on similar products and/or individual components. As with all products for which limited data is available, caution must be exercised through the use of protective equipment and handling procedures to minimise exposure.

Potential Health Effects:**ACUTE EFFECTS**

Swallowed: Slight to moderate toxicity. Acute Oral LD₅₀ (rats) = 1590 mg/kg (terbutylazine). Expected product Acute Oral LD₅₀ > 1800 mg/kg.

Eye: The granules can cause physical discomfort if in the eye causing irritation, stinging, reddening and watering of the eyes. Product may irritate the eyes.

Skin: May cause skin irritation. Acute dermal LD₅₀ > 2,000 mg/kg (rats - terbutylazine).

Inhaled: As this is a granule and exposure to vapour is minimal due to low volatility, a single exposure is not expected to be hazardous. LC₅₀ > 5.3 mg/L (rat – terbutylazine).

Long Term Exposure:

Chronic toxicity: Long term studies (2 years) indicated no significant effects from terbutylazine.

Reproductive and Development effects: No significant clinical signs related to terbutylazine were reported.

Genotoxic effects: Terbutylazine was negative in tests for mutation in bacteria, chromosomal aberrations in human lymphocytes, tests for DNA repair in rat hepatocytes and human fibroblasts; and for chromosome damage in mouse bone marrow.

Fate in humans and animals: Terbutylazine was almost completely absorbed into the circulation after oral administration to rats; after application to the skin, about 30% of the dose was absorbed. Terbutylazine was almost completely excreted within 48 hours; about 2/3 was excreted in the urine and the rest in faeces. There was no evidence of accumulation in organs. Thirteen metabolites were identified, representing about 65% of an administered dose, indicating that terbutylazine is extensively metabolised in the body.

SECTION 12**ECOLOGICAL INFORMATION**

Environmental Toxicology: Results indicate that terbutylazine will be practically non-toxic to birds, based on acute oral and dietary testing in mallard ducks and bobwhite quail (LD₅₀ > 2510 mg/kg-and LC₅₀ > 5620 ppm). Acute studies on five fish species indicate that is moderately toxic to fish (LC₅₀'s between 3.6 and 7.6 mg/L) and a similar toxicity level observed for oysters. Acute toxicity to daphnia and mysid shrimp differed significantly (LC₅₀'s 39.4 mg/L and 0.092 mg/L, respectively). Green alga and an aquatic plant gave an EC₅₀ value of 0.02 mg/L and 0.23 mg/L respectively, showing this herbicide/algicide exhibits very high toxicity to this group of plants. Standard test results for bees show that terbutylazine is practically non-toxic (oral and contact LD₅₀ > 100 µg/bee) and also for earthworms (LC₅₀'s 210 & > 1000 mg/kg). As well, the effect of terbutylazine on soil micro-organisms was studied and there was no effect on the soil respiration and nitrification activity of the soil micro-organisms at either treatment rate (1 and 5 times maximum field rates). In sewage sludge terbutylazine did not affect oxygen consumption nor microbial digestion.

SECTION 12 ECOLOGICAL INFORMATION (Continued)

Environmental Fate: Laboratory studies in two soils (sandy loam) gave half- lives of 73-138 days at 20-25°C, but this extended to 456 days at 10°C, with hydroxy-terbutylazine and desethyl-terbutylazine as the main degradation products. Field degradation data gave half- lives of 11-36 days for a range of three soils. Although the calculated Koc values for terbutylazine indicate it could be mobile in the sandy and loamy soils, the desorption test results indicate that terbutylazine is relatively tightly bound in soils, presumably a function of organic matter and clay content

SECTION 13 DISPOSAL CONSIDERATIONS

Spills and Disposal: Persons involved in cleanup require adequate skin protection - see Section 8. Keep material out of streams and sewers. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities.

Disposal of empty containers: Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight. Shake bag contents into spray tank until the bag is empty. Do not dispose of undiluted chemicals on site. Break, crush, or puncture and deliver empty packaging for appropriate disposal 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.

SECTION 14 TRANSPORT INFORMATION

Road & Rail Transport: Apparent Terbutylazine 875 WG Herbicide is exempt from classification as a Dangerous Good in packs less than 500 kg (L) or less; or in IBC's under the Australian Code for the Transport of Dangerous Goods by Road and Rail. For bulk shipments this product is a class 9, UN 3077. (See special provision AU01).

Marine and Air Transport: Apparent Terbutylazine 875 WG Herbicide is classified as a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air transport Association (IATA). If transporting by sea or air the following Dangerous Goods Classification applies:- UN 3077, Class 9 (Miscellaneous Dangerous Goods), Packing Group III, Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Contains Terbutylazine). Hazchem code 2Z. Hazard Identification Number (HIN) 90. Australian Standards Initial Emergency Response Guide No. 47.

SECTION 15 REGULATORY INFORMATION

Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP), this product is a schedule 6 poison.

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 88173.

This product is classified as a Hazardous Substance under the criteria of Safe Work Australia.

This product is not classified as a Dangerous Good according to the ADG Code (7th Ed).

This product is classified as a Dangerous Good according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA).

Requirements concerning special training:

Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

SECTION 16 OTHER INFORMATION

Issue Date: 8 June 2020. Valid until 8 June 2025. (First issue).

Key to abbreviations and acronyms used in this SDS:

ADG Code Australian Dangerous Goods Code (for the transport of dangerous goods by Road and Rail).

Ataxia: Inability to control the coordinate movements of the muscles.

SECTION 16 OTHER INFORMATION (Continued)

- Bradycardia: Is a resting heart rate of under 60 beats per minute (adults).
- Carcinogen: An agent which is responsible for the formation of a cancer.
- Genotoxic: Capable of causing damage to genetic material, such as DNA.
- HCIS: Hazardous Chemical Information System.
- Koc: A measure of the tendency of a chemical to bind to soils, corrected for soil organic carbon content.
- Lacrimation: The production, secretion, and shedding of tears.
- Lavage: A general term referring to cleaning or rinsing.
- Mutagen: An agent capable of producing a mutation.
- Pneumonitis: A general term that refers to inflammation of lung tissue.
- PPE: Personal protective equipment.
- Teratogen: An agent capable of causing abnormalities in a developing foetus.
- TWA: The Time Weighted Average airborne concentration over an eight-hour working day, for a five day working week over an entire working life.
- Safe Work Australia: Formally known as Australian Safety & Compensation Council (ASCC) which was formally known as the National Occupational Health & Safety Commission (NOHSC).

References

1. "Hazardous Chemicals Information System". Safe Work Australia HCIS website. (2020).
2. "Classifying Hazardous Substances" Safe Work Australia. August 2018.
3. Globally Harmonized System of Classification and Labelling of Chemicals (GHS). United Nations, 2009.

This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. End SDS.