

SAFETY DATA SHEET

SECTION 1

IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **Apparent Diuron 900 WG Herbicide**

Other Names: Diuron is urea derivative herbicide, Group C Herbicide.
Use: A selective agricultural water dispersible granule herbicide.
Company: AIRR Apparent Pty Ltd
Address: 15/16 Princes Street, Newport NSW 2106.
ACN/ABN: 153 573 641
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:

Carcinogenicity: Category 2.
Specific Target Organ Toxicity (Repeated Exposure): Category 2.
Hazardous to the Aquatic Environment- Acute Hazard: Category 1.
Hazardous to the Aquatic Environment- Long-Term Hazard: Category 4.

Signal Word: WARNING.

Hazard statements:

H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with effects.

Precautionary Statements:

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust, mist or spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/ attention:
P314 Get medical advice/attention if you feel unwell.
P391 Collect spillage.

Storage:

P405 Store locked up.

Disposal:

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

SECTION 2 HAZARDS IDENTIFICATION (Continued)

Pictograms:

**SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredients:

CHEMICAL	CAS NUMBER	PROPORTION
Diuron	330-54-1	900 g/kg
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 rinse with water until chemical is removed. If irritation occurs and persists, seek medical advice.
- Skin contact:** Gently brush granules away. Wash skin with soap and water. If irritation occurs and persists, seek medical advice. Irritation of the skin is not expected.
- Inhalation:** Remove to fresh air and observe until recovered. If effects persist, seek medical advice.
- Advice to Doctor:** Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazard: Combustible solid. If involved in a fire will release toxic fumes.

Extinguishing media: Extinguish fire using carbon dioxide, foam or dry agent. If not available, use waterfog or fine water spray but 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. If this product is scattered there is a possibility that it could form flammable or explosive dust clouds in the air. Due to the granular nature of the product, this is unlikely.

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 overalls, goggles and gloves. If there is a significant chance that dust is likely to build up in the cleanup area, the use of a respirator is recommended.

In the case of spillage, stop leak if safe to do so, and contain spill. Large spills should be dyked or covered to prevent dispersal. If possible, granules may be recovered and used for their intended use. Vacuum shovel or pump 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.

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. If a significant quantity of material enters drains, advise emergency services. Thoroughly launder protective clothing before storage or re-use.

SECTION 7**HANDLING AND STORAGE**

Precautions for Safe Handling: No special equipment is usually needed when handling this product. For general hygiene reasons it is suggested that suitable gloves (preferably elbow length) are worn when skin contact is likely. Avoid contact with eyes and skin. Do not inhale dust or spray mist. If product on skin immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

Conditions for Safe Storage: Keep out of reach of children. Not classified as a Dangerous Good. Store in the closed, original container in a well ventilated area away from children, animals, food, feedstuffs, seed and fertilisers. Do not store for prolonged periods in direct sunlight.

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

The following exposure limits have been assigned by Safe Work Australia to Diuron, the major ingredient in this product. TWA = 1 mg/m³. (TWA= Time weighted Average).

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 and mists are minimised.

Personal Protective Equipment (PPE):

General: No special equipment is usually needed when this product. For general hygiene reasons it is advised that suitable gloves (preferably elbow length) are worn when skin contact is likely.

Personal Hygiene: Clean water should be available for washing in case of eye or skin contamination. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

SECTION 9**PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	Granulated solid.
Odour:	No specific odour.
Boiling point:	No data available.
Freezing point:	No data available.
Solubility in Water:	Disperses in water.
pH:	No data available.
Flammability:	Not flammable.
Poisons Schedule:	Exempt from poison scheduling.
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.

Incompatible materials: Strong oxidizing agent such as chlorates, nitrates, peroxides etc.

Hazardous decomposition products: This product will decompose when burnt. Carbon dioxide and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds and oxides, in some circumstances hydrogen cyanide gas.

Hazardous reactions: Avoid contact of the concentrate with strong alkalis and alkaline materials such as lime. 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: Low acute toxicity. Acute Oral LD₅₀ = 3400 mg/kg (rats).
Eye: The granules can cause physical discomfort if in the eye. May cause irritation, stinging, reddening and watering of the eyes.
Skin: Low acute dermal toxicity. Acute Dermal LD₅₀ > 2,000 mg/kg.
Inhaled: Inhalation of mists or sprays might produce respiratory irritation.

Chronic toxicity: Rats fed on very high doses over a two week period showed changes to their spleen and bone marrow. Moderate to high doses over a two year period produced changes to blood chemistry, increased mortality, growth retardation, abnormal blood pigment and anaemia. Low doses showed no adverse effects.

Carcinogenicity: Safe Work Australia has classified diuron in the occupational environment as a Carcinogen Category 3 substance. This means the *evidence of carcinogenicity is inadequate* in humans but sufficient in experimental animals and may be placed in this category when there is strong evidence that the mechanism of carcinogenicity in experimental animals does not operate in humans.

Reproductive Effects: It is unlikely that diuron will cause reproductive effects in humans at expected levels of exposure. Daily low doses over three successive generations of rats caused significantly decreased body weight of offspring and the second and third generations. Fertility rates were unaffected.

Mutagenicity Effects: Indications are that diuron is not mutagenic.

Teratogenic effects: Diuron is teratogenic at high doses.

Organ toxicity: Low doses of diuron over extended periods of time can cause enlargement of the liver and spleen.

Fate in animals: Diuron is excreted in the faeces and urine of test animals. Breakdown of the compound is similar in animals, plants, and soil. Cows fed very low doses of Diuron in their diets had small amounts of residues in whole milk. Cattle fed small amounts accumulated low levels of Diuron in fat and muscle, liver, and kidney.

SECTION 12**ECOLOGICAL INFORMATION**

Environmental Toxicology: Very toxic to aquatic organisms may cause long-term adverse effects to the aquatic environment. *Effects on birds:* Diuron is slightly toxic to birds. Bobwhite quail (dietary) LC₅₀ = 1730 ppm; Japanese quail and ring-necked pheasant LC₅₀ > 5000 ppm; Mallard ducks LC₅₀ is approximately 5000 ppm. *Effects on aquatic organisms:* The LC₅₀ (48 hour) values for Diuron range from 4.3 mg/L to 42 mg/L in fish, and range from 1 mg/L to 2.5 mg/L for aquatic invertebrates. The LC₅₀ (96-hour) is 3.5 mg/L for rainbow trout. Diuron is moderately toxic to fish and highly toxic to aquatic invertebrates. *Effects on other organisms:* Diuron is not toxic to bees.

Environmental Fate: Diuron is moderately to highly persistent in soils. Average field half-lives of diuron are from 90 to 160 days. Some pineapple fields contained residues 3 years after the last application. Mobility in the soil is related to organic matter and to the type of the residue. The metabolites are less mobile than the parent compound. *Breakdown in water:* Diuron is relatively stable in neutral water. Microbes are the primary agents in the degradation of Diuron in aquatic environments. *Breakdown in vegetation:* Diuron is readily absorbed through the root system of plants and less readily through the leaves and stems.

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. Vacuum, shovel or pump waste into an approved drum. To decontaminate spill area, tools and equipment, wash with detergent and water and add the solution to the drums of wastes already collected and label contents. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities.

Disposal of empty containers: Single rinse before disposal. Add rinsing to spray tank. DO NOT dispose of undiluted chemicals on-site. Break, crush or puncture container and deliver empty packaging for appropriate disposal to an approved waste management facility. Empty containers and product should not be burnt.

SECTION 14**TRANSPORT INFORMATION**

Road & Rail Transport: This product 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 Diuron 900 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 Diuron). 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 not a scheduled poison.

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 65501.

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 for packs less than 500 kg (L) or less; or in IBC's. (SP AU01) (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: 22 November 2020. Valid for 5 years till 20 November 2025. (5 year update).

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).

Carcinogen An agent which is responsible for the formation of a cancer.

Genotoxic Capable of causing damage to genetic material, such as DNA.

Mutagen An agent capable of producing a mutation.

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).

SECTION 16 OTHER INFORMATION (Continued)**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,

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