SAFETY DATA SHEET

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **Apparent Dicamba 500 Herbicide**

Other Names: Dicamba as the dimethylamine salt, a phenoxy herbicide, Group I Herbicide.
Use: A liquid broadleaf agricultural herbicide.
Company: Apparent Pty Ltd
Address: Suite G.08 762 Toorak Road, Hawthorn East, Vic. 3123.
PO Box 3092, Cotham PO, Kew, Vic 3101
ACN/ABN: 143 724 136
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

Globally Harmonised System (GHS) classification of the substance/mixture:
Eye Damage/Irritation: Category 2B.
Hazardous to the Aquatic Environment – Long-Term Hazard – Category 3.

Signal Word: WARNING.

Hazard statements:
H320 Causes eye irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements:
Prevention:
P264 Wash hands, arms and face thoroughly after handling.
P273 Avoid release to the environment.

Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.

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

[Pictograms not required].

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

CHEMICAL	***CAS NUMBER***	***PROPORTION***
Dicamba present as the dimethylamine salt	2300-66-5	500 g/L
Other ingredients (including water) determined not to be hazardous		Balance

SECTION 4 FIRST AID MEASURES

FIRST AID

Ingestion: If swallowed do NOT induce vomiting. Wash mouth with water. If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 131 126.

Eye contact: Immediately hold eyes open and flood gently with clean water. Ensure irrigation under eyelids by occasionally lifting them. Do not try to remove contact lenses unless trained. If irritation persists, seek medical advice.

Skin contact: Remove contaminated clothing. Wash skin with soap and water to remove chemical. If skin is irritated, seek medical advice.

Inhalation: Remove to fresh air and observe until recovered. If effects persist, seek medical advice. In severe case, symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.

Advice to Doctor: Treat Symptomatically. Dicamba is rapidly eliminated in animals, mainly as the glucuronide.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazard: Not flammable. Generally considered a low risk due to the water content, but once the water has evaporated the product is combustible.

Extinguishing media: Use extinguishing media suitable for surrounding area. 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: There is low risk of an explosion from this product under normal circumstances if involved in a fire. Product is unlikely to decompose until heated to dryness. On further heating will emit toxic fumes. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or smoke.

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: Wear elbow-length PVC gloves and face shield or goggles. In the case of spillage, contain and absorb spilled material with absorbent material such as sand, clay, cat litter or material such as vermiculite and dispose of waste in compliance with relevant Local, State or Territory government regulations. Wear prescribed protective clothing and equipment. Keep out animals and unprotected persons.

Material and methods for containment and cleanup procedures: 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.

SECTION 7 HANDLING AND STORAGE

Precautions for Safe Handling: No smoking, eating or drinking should be allowed where material is used or stored. May irritate the eyes and skin. Avoid the contact with eyes and skin. DO NOT inhale spray mist. When opening the container and preparing spray wear elbow-length PVC gloves and face shield or goggles. If product on skin, immediately wash area with soap and water. After each use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves and face shield or goggles and contaminated clothing.

Conditions for Safe Storage: 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. Not classified as a Dangerous Good. This product is a Schedule 6 Poison (S6) and must be stored, transported and sold in accordance with the relevant Health Department regulations.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:
No exposure limits have been assigned by Safe Work Australia to the ingredients in this product.

Biological Limit Values:
No biological limit allocated.

Engineering controls:
Use in ventilated areas adequate to keep exposure below the TWA. Keep containers closed when not in use.

Personal Protective Equipment (PPE):
General: When opening the container and preparing spray wear elbow-length PVC gloves and face shield or goggles. If product on skin, immediately wash area with soap and water. After each use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves and face shield or goggles and contaminated clothing.

Personal Hygiene: May irritate the eyes and skin. Avoid the contact with eyes and skin. DO NOT inhale spray mist. 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:	Clear almost colourless liquid.
Odour:	Mild characteristic odour.
Boiling point:	Approximately 100°C.
Freezing point:	Approximately 0°C.
Specific Gravity:	1.18 approx at 20°C.
Solubility in Water:	Soluble in water.
pH:	No data available.
Flammability:	Not flammable.
Corrosive hazard:	Not corrosive.
Flashpoint (°C):	Not flammable.
Flammability Limits (%):	Not applicable.
Poisons Schedule:	S6.
Formulation type:	Soluble Concentrate (SL).

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: Do not store for prolonged periods in direct sunlight.

Incompatible materials: Strong acids, strong bases and strong oxidising agents. Reaction of the concentrate or spray mix with acids will precipitate solid dicamba and significantly deactivate the product and cause blockages in spray equipment. The addition of a strong alkali such as caustic soda will cause release of dimethylamine vapour.

Hazardous decomposition products: Product is unlikely to decompose until heated to dryness. On further heating will emit toxic fumes.

Hazardous reactions: Hazardous polymerisation will not occur.

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.

SECTION 11 TOXICOLOGICAL INFORMATION (Continued)

Potential Health Effects:

ACUTE EFFECTS

Swallowed: Acute oral LD_{50} for Dicamba 2629 mg/kg. Low acute oral toxicity. Symptoms of poisoning with dicamba include loss of appetite, vomiting, muscle weakness, slowed heart rate, shortness of breath, central nervous system effects, benzoic acid in the urine, incontinence, cyanosis and exhaustion following repeated muscle spasms.

Eye: This product is an eye irritant. Prolonged contact with the concentrate may cause damage to the eye.

Skin: May irritate the skin. Avoid skin contact. Acute dermal LD_{50} > 2000 mg/kg (dicamba).

Inhaled: Acute inhalation LD_{50} > 9.6 mg/L/4hrs (dicamba). Low inhalation toxicity. Avoid breathing spray mist.

Long Term Exposure:

Chronic toxicity: Myotoxic muscular spasms, urinary incontinence and if excessive dyspnea, cyanosis and exhaustion.

Reproductive effects: The data indicates no reproductive effects.

Mutagenic effects: The data suggests that dicamba is not mutagenic.

Carcinogenic effects: The data suggests that dicamba is not carcinogenic.

Fate in humans and animals: In mice some enlargement of liver cells has occurred. This effect has not been shown in human studies.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: This product biodegrades in the environment. It will not accumulate in the soil or water or cause long term problems. Dicamba is highly soluble in water and does not bind to soil particles and is therefore mobile and may contaminate groundwater. Dicamba has low toxicity to aquatic organisms, birds and is non-toxic to bees. The LD_{50} is > 2000 mg/kg in mallards. Eight day dietary LC_{50} for mallard ducks and bobwhite quail is > 10000 mg/kg. LC_{50} for rainbow trout and bluegill sunfish = 1335 mg/L. EC_{50} (48 hour) daphnia = 110 mg/L.

Environmental Fate:
Typical half-life in soil is 1 to 4 weeks. Dicamba breaks down slowly in sunlight. Soil microbes are primarily responsible for its breakdown. In aquatic environments, microbial degradation is the main route of degradation as dicamba is chemically stable in water. Photolysis may occur, but aquatic hydrolysis, volatilisation, absorption to sediments and bioconcentration are not expected to be significant.

SECTION 13 DISPOSAL CONSIDERATIONS

Spills and Disposal: Persons involved in cleanup require adequate skin protection - see Section 8. In case of spillage, contain and absorb spilled material with absorbent material such as clay, sand or cat litter and dispose of waste as indicated below or in accordance to the Australian Standard 2507- Storage and Handling of Pesticides. Keep out animals and unprotected persons. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum.

Disposal of empty 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.

SECTION 14 TRANSPORT INFORMATION

Road & Rail Transport: This product is not classified as a Dangerous Goods under the Australian Code for the Transport of Dangerous Goods by Road and Rail. Not classified as a Dangerous Good for marine or air transport.

This product is a Schedule 6 Poison (S6) and must be stored, transported and sold in accordance with the relevant Health Department regulations.

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. 67055
This product is classified as a Hazardous Substance under the criteria of Safe Work Australia. Xi: Irritant.
This product is not classified as a Dangerous Good according to the ADG Code (7th Ed).
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: 9 June 2016. Valid for 5 years till 9 June 2021. (Revised to GHS).

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.
Cyanosis:	A bluish or purplish discoloration (of skin) due to deficient oxygenation of the blood.
Dyspnea:	Difficult of laboured respiration.
Genotoxic:	Capable of causing damage to genetic material, such as DNA.
HSIS:	Hazardous Substances Information System.
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.
Myotoxic:	Having or being a toxic effect on muscle.
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. “Search Hazardous Substances”. Safe Work Australia website. (2016).
2. “Approved Criteria for Classifying Hazardous Substances” 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.
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.