

SAFETY DATA SHEET

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **AgMerch 2,4-DB 500 Herbicide**

Other Names: 2,4-DB as dimethylamine, a phenoxy herbicide. Group I Herbicide.
Use: A liquid broadleaf phenoxy herbicide.
Company: AgMerch Pty Ltd
Address: 217 Wyndham Street, Shepparton, Vic 3630
ACN/ABN: 26 645 371 017
Email: info@agmerch.com.au
Emergency Contact: 0498 530 214

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:

Acute Toxicity – Oral: Hazard Category 4.
Hazardous to the Aquatic Environment – Long-Term (Chronic) Hazard: Hazard Category 2.

Signal Word: WARNING.

Hazard statements:

H302 Harmful if swallowed.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention:

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.
P330 Rinse mouth.
P391 Collect spillage.

Disposal:

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

Pictogram:



SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

CHEMICAL	CAS NUMBER	PROPORTION
2,4-D present as the dimethylamine salt	94-82-6	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. Make every effort to prevent vomit from entering the lungs by careful placement of the patient.

Eye contact: Hold eyes open and flood gently with clean water until chemical is removed. 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. Contaminated clothing should be laundered before reuse.

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.

SECTION 5**FIRE FIGHTING MEASURES**

Specific Hazard: Generally considered a low risk due to the water content, but once the water has evaporated the product is combustible.

Extinguishing media: Not flammable. Choose extinguishing media to suit the burning material. Contain all runoff.

Hazards from combustion products: There is no 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 and noxious 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 cotton overalls buttoned to the neck and wrist and washable hat, elbow-length PVC gloves and face shield. 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 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.

This product is a herbicide and spills can damage crops, pastures and desirable vegetation. Prevent from entering drains, waterways or sewers. Use earthen bunds or absorbent bunding to prevent spreading of spillage.

SECTION 7**HANDLING AND STORAGE**

Precautions for Safe Handling: No smoking, eating or drinking should be allowed where material is used or stored. Poisonous if swallowed. May irritate the eyes and skin. This product is alkaline. Avoid contact with the eyes and skin. DO NOT inhale spray mist. When preparing spray, wear cotton overalls buttoned to the neck and wrist and washable hat, elbow-length PVC gloves and face shield. When using the prepared spray wear cotton overalls buttoned to the neck and wrist and washable hat. 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. After each day's use, wash gloves, face shield and contaminated clothing.

SECTION 7 HANDLING AND STORAGE (Continued)

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 5 Poison (S5) and must be stored, transported and sold in accordance with the relevant Health Department regulations.

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:

Use in ventilated areas. Keep containers closed when not in use.

Personal Protective Equipment (PPE):

General: When preparing spray, wear cotton overalls buttoned to the neck and wrist and washable hat, elbow-length PVC gloves and face shield. When using the prepared spray wear cotton overalls buttoned to the neck and wrist and washable hat. 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. After each day's use, wash gloves, face shield and contaminated clothing.

Personal Hygiene: Poisonous if swallowed. May irritate the eyes and skin. This product is alkaline. Avoid contact with the 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:	Brown liquid.
Odour:	Faint Ammoniacal odour.
Boiling point:	Approximately 100°C.
Freezing point:	Approximately 0°C.
Specific Gravity:	1.1 - 1.2 at 20°C.
Solubility in Water:	Suspends in water.
pH:	No data available.
Flammability:	Not flammable.
Corrosive hazard:	Not corrosive.
Flashpoint (°C):	Not flammable.
Flammability Limits (%):	Not established.
Poisons Schedule:	This product is a Schedule 5 (S5) poison.
Formulation type:	Suspension Concentrate (SC)

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 2,4-DB acid 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, which is toxic.

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

Hazardous reactions: Will not polymerise.

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: Harmful if swallowed. Acute oral LD₅₀ for 2,4-DB = 700 mg/kg. May cause irritation to mouth, throat and stomach.

Eye: This product will cause severe irritation and possible damage unless washed off immediately. If exposure is brief, symptoms should disappear once exposure has ceased.

Skin: Harmful in contact with the skin. Avoid skin contact. Acute dermal LD₅₀ = 800 mg/kg (2,4-DB). Prolonged skin contact is unlikely to result in absorption of harmful amounts. Repeated skin contact may result in absorption of harmful amounts.

Inhaled: Single, brief exposure to vapours is not likely to be hazardous. Prolonged excessive exposure to mist may cause adverse effects.

Long Term Exposure:

Chronic toxicity: Chronic Overexposure: Weight loss and damage to liver and kidneys may be expected if exposure is excessive.

Reproductive effects: In laboratory animals, excessive doses toxic to the parent animals caused decreased weight and survival of offspring. The evidence suggests that if 2,4-DB causes reproductive effects in animals, this only occurs at very high doses. Thus, reproductive problems associated with 2,4-DB are unlikely in humans under normal circumstances.

Mutagenic effects: 2,4-DB was found to be non-mutagenic in most systems. The data suggest that 2,4-DB is not mutagenic or has low mutagenic potential.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: This product is biodegradable. It will not accumulate in the soil or water or cause long term problems. 2,4-DB has low toxicity to birds. The dietary LC₅₀ for Japanese quail and Bobwhite quail is > 5000 mg/kg. 2,4-DB is moderately toxic to aquatic organisms on an acute basis (LC₅₀/EC₅₀ between 1 and 10 mg/L in the most sensitive species tested). Moderately toxic to honeybees. The honeybee LD₅₀ is 0.0145 mg/bee.

Environmental Fate:

2,4-DB has low soil persistence. The half-life in soil is 10 days. Soil microbes are primarily responsible for its breakdown.

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.

Ideally the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).

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.

SECTION 15**REGULATORY INFORMATION**

Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP), this product is a Schedule 5 poison.

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 92175.

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), the 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: 15 June 2022. Valid for 5 years till 15 June 2027. (First issue).

Key to abbreviations and acronyms used in this MSDS:

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.

HCIS: Hazardous Chemical 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.

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: Australian government statutory body established in 2008 to develop national policy relating to Worker Health & Safety and workers' compensation.

References

1. "Hazardous Chemicals Information System". Safe Work Australia HCIS website. (2022).
2. "Classifying Hazardous Substances" Safe Work Australia. August 2018.
3. Globally Harmonized System of Classification and Labelling of Chemicals (GHS). United Nations, 2017 (7th Ed).

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