

SAFETY DATA SHEET

SECTION 1

IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **Apparent Metribuzin 750 WG Herbicide**

Other Names: Metribuzin. Triazinone derivative.
Use: A selective agricultural herbicide.
Company: Apparent Pty Ltd
Address: Suite G.08, 762 Toorak Rd, Hawthorn East, Vic. 3123.
PO Box 3092, Cotham PO, Kew, Vic 3101
ACN/ABN: 143 724 136
Telephone Number: 03 9822 1321
Email: wardell@bigpond.net.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**

Global Harmonization System (GHS) classification:

Acute Toxicity – Oral: Category 4.
Hazardous to the Aquatic Environment – Acute Hazard: Category 1.
Hazardous to the Aquatic Environment – Long-Term Hazard: Category 1.

Signal Word: WARNING

Hazard statements:

H302 Harmful if swallowed.
H400 Very toxic to aquatic life.
H410 Very 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
Metribuzin	21087-64-9	750 g/kg
Other ingredients determined not to be hazardous		balance

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

Ingestion: If swallowed do NOT induce vomiting. Give a glass of water. If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 131 126.

Eye contact: Gently brush granules away and rinse with water. 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 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: Generally considered a low risk. This product is a solid which is difficult to ignite.

Extinguishing media: Extinguish fire using media suited to burning material. If containers are ruptured contain all runoff as product is a herbicide.

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 no risk of explosion.

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 / Material and methods for containment and cleanup procedures:**

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. 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. Contain spill and sweep up and shovel or collect recoverable material into labelled containers for use, recycling or dispose of as waste as indicated in section 13 or according to the Australian Standard 2507 - Storage and Handling of Pesticides. Keep out animals and unprotected persons.

After spills, wash area preventing runoff from entering drains. 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 smoking, eating or drinking should be allowed where material is used or stored. Harmful if swallowed. May irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale dust or spray mist. Wash hands after use.

Conditions for Safe Storage: Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Keep from contact with fertilizers, insecticides, fungicides and seeds.

SECTION 7 HANDLING AND STORAGE (Continued)

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. 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 for Metribuzin, the active ingredient in this product:

Atmospheric Contaminant	Exposure Standard (TWA)	STEL (mg/m ³)
Metribuzin	5 mg/m ³	-

TWA = Time-weight Average STEL = Short term Exposure Limit

Biological Limit Values:

No biological limit allocated.

Engineering controls:

Use in ventilated areas where vapours and mists are able to accumulate. 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: Although no special PPE is indicated, take precautions to avoid contact with skin and eyes by wearing chemical resistant gloves and face shield or goggles. Wash thoroughly before smoking, eating or using toilet facilities. Wash hands after use.

Personal Hygiene: Harmful if swallowed. May irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale dust or 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:	Light brown granulated solid.
Odour:	Slight sulphurous odour.
Boiling point:	No data available. Solid.
Freezing point:	No data available. This product is a solid at ambient temperatures.
Melting Point:	126°C.
Bulk density:	0.43 – 0.56.
Solubility in Water:	Disperses in water.
pH:	No data available.
Flammability:	Not flammable.
Corrosive hazard:	Not corrosive.
Flashpoint (°C):	Not applicable - solid.
Flammability Limits (%):	Not established.
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. Product is unlikely to react or decompose under normal storage conditions.

Conditions to avoid: Do not store for prolonged periods in direct sunlight.

Incompatible materials: Strong acids, strong bases and strong oxidising agents.

Hazardous decomposition products: Hazardous decomposition products include carbon dioxide, carbon monoxide and nitrogen oxides.

Hazardous reactions: No particular reactions to avoid.

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.

Acute Toxicity: Metribuzin is harmful orally. It is practically nontoxic dermally and moderately toxic via the inhalation route. Metribuzin technical has been shown not to irritate the skin or eyes of rats, rabbits, guinea pigs, or human volunteers, however the formulated product may be irritating to the eyes and skin. Effects of high acute exposure in Metribuzin poisoned rats included narcosis (stupor) and laboured breathing. Deaths occurred within 24 hours, and survivors recovered slowly without permanent effects.

Potential Health Effects:**ACUTE EFFECTS**

Swallowed: LD₅₀ = 2365 mg/kg (male rat) and 1449 mg/kg (female rat); 700 mg/kg in mice and 245 to 274 mg/kg in guinea pigs.

Eye: This formulated product may be irritating to the eyes. Symptoms may include stinging and reddening of eyes and watering which may become copious.

Skin: This formulated product may be irritating to the skin. The dermal LD₅₀ rabbit > 5000 mg/kg.

Inhalation: LC₅₀ (4 hr) inhalation > 4.84 mg/L (dust – highest attainable concentration).

Long Term Exposure:

Chronic toxicity: No evidence of carcinogenic potential was observed in chronic feeding studies with metribuzin in rats and mice. Target organs are the thyroid and the liver and it also appears to depress the central nervous system. Metribuzin is not genotoxic, teratogenic, carcinogenic or a reproductive toxin.

Fate in humans and animals: After metribuzin is absorbed, it is rapidly distributed in the body and excreted unchanged in the urine. In mammals, 90% elimination occurs within 96 hours, approximately equally distributed between the urine and feces.

SECTION 12**ECOLOGICAL INFORMATION**

Environmental Toxicology: No data is available on this product. The active ingredient, metribuzin has moderate toxicity to birds. The LD₅₀ in bobwhite quail = 164 mg/kg and mallard duck = 460-680 mg/kg. Metribuzin is very toxic to fish and other aquatic organisms. The 96-hour LC₅₀ in rainbow trout = 74.6 mg/L and golden orfe = 141.6 mg/L, Daphnia 48-hour LC₅₀ = 49.6 mg/L. Metribuzin is highly toxic to algae EC₅₀ green algae = 0.021 mg/L.

Environmental Fate: *Breakdown in soil and groundwater:* Metribuzin is of moderate persistence in the soil environment. The half-life of Metribuzin varies according to soil type and climatic conditions. Soil half-lives of 30 to 120 days have been reported; a representative value may be approximately 60 days. Metribuzin is poorly bound to most soils and soluble in water, giving it a potential for leaching in many soil types. Soil mobility is affected by many site-specific variables, including the amount of soil organic matter, particle size distribution, porosity, rainfall, and application rates. Metribuzin has been detected in some rivers, wells and groundwater in the USA. The major mechanism by which Metribuzin is lost from soil is microbial degradation. Losses due to volatilization or photodegradation are not significant under field conditions. *Breakdown in water:* The half-life of Metribuzin in pond water is approximately 7 days. If present, Metribuzin would most likely be found in the water column rather than the sediment, due to its low binding affinity and high water solubility. *Breakdown in vegetation:* Metribuzin is absorbed through the leaves when plants are given surface treatment, but the primary route for uptake is through the root system. From the roots, it is translocated upward, becoming concentrated in the roots, stems, and leaves of treated plants. In non-susceptible plants it is de-aminised to more water-soluble conjugates; in susceptible plants it is not metabolized and disrupts photosynthesis in the chloroplast.

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. Keep out animals and unprotected persons. In case of spillage of product vacuum, shovel or pump waste into an approved drum. In the case of spills involving the mixed spray, contain and absorb spilled material with absorbent material such as clay, sand or cat litter. 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 or shake remainder into spray tank. Do not dispose of undiluted chemicals on site. 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 exempt from classification as a Dangerous Good in packs less than 3,000 kg or litres 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: Product is 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 75% Metribuzin). Marine pollutant. 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. 65108.

This product is classified as a Hazardous Substance under the criteria of Safe Work Australia. Xn: Harmful, Xi irritant.

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 October 2015. Valid for 5 years till 8 October 2020 (5 year update + 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.

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

LD₅₀: Median Lethal Dose. A statistically derived single dose of a substance that can be expected to cause death in 50% of dosed animals.

OCS: Office of Chemical Safety.

PPE: Personal protective equipment.

SECTION 16 OTHER INFORMATION (Continued)

Safe Work Australia: Formerly known as Australian Safety & Compensation Council (ASCC) which was formerly known as the National Occupational Health & Safety Commission (NOHSC).

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.

References

1. "Search Hazardous Substances". Australian Safety and Compensation Council website. (2015).
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