

SAFETY DATA SHEET

SECTION 1

IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **Apparent Bow Saw 600 Herbicide**

Other Names: Metsulfuron-methyl. A sulfonyleurea herbicide, Group B Herbicide.
Use: A selective herbicide for use in cereal crops, pastures rights of way, commercial and industrial areas.
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SECTION 2

HAZARDS IDENTIFICATION

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

* Under Safe Work Australia this product is not classified as a hazardous substance. Under the Globally Harmonised System (GHS) this product is a hazardous substance with the following classification:

Globally Harmonised System (GHS) Classification:

Hazardous to the Aquatic Environment – Acute Hazard: Category 1.
Hazardous to the Aquatic Environment – Long term hazard: Category 4.

Signal Word: WARNING.

Hazard Statements:

H400 Very toxic to aquatic life.
H413 May cause long lasting harmful effects to aquatic life.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

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
Metsulfuron methyl	74223-64-6	600 g/kg
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 and give water to drink. If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 131 126.

Eye contact: Gently brush granules away and hold eyes open and flood 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: Gently brush granules away. Remove contaminated clothing. Wash skin with soap and water. If skin irritated persists, re-wash area and seek medical advice.

Inhalation: Remove to fresh air and observe until recovered. If effects persist, seek medical advice.

SECTION 5**FIRE FIGHTING MEASURES**

Specific Hazard: Generally considered a low risk. Not flammable. This product, if scattered, may form flammable or explosive dust clouds in air.

Extinguishing media: Product is not flammable. Extinguish fire using media suited to burning material. If containers are ruptured contain all runoff. For small fires consider letting fire burn itself out as water may increase the area contaminated.

Hazards from combustion products: There is no risk of an explosion from this product involved in a fire. However, under severe dusty conditions this material may form explosive mixtures in air. On heating will emit toxic fumes. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk to 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**ACCIDENTIAL 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 of 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 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 swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container and preparing spray wear elbow-length PVC gloves and goggles. If applying by hand wear cotton overalls, over normal clothing, buttoned to the neck and wrist and a washable hat elbow-length PVC gloves. If product on skin, immediately wash area with soap and water.

SECTION 7 HANDLING AND STORAGE (Continued)

If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.

Conditions for Safe Storage: 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:**

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:

No special ventilation requirements are normally necessary for this product. Ensure that dust is kept to a minimum. 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 goggles. If applying by hand wear cotton overalls, over normal clothing, buttoned to the neck and wrist and a washable hat elbow-length PVC gloves. If product on skin, immediately wash area with soap and water.

Personal Hygiene: If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing. 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:	Off white free flowing granules.
Odour:	None.
Boiling point:	No data.
Freezing point:	No data.
Specific Gravity:	No data.
Solubility in Water:	Disperses in water.
pH:	No data available.
Flammability:	Not flammable.
Corrosive hazard:	Not corrosive.
Poisons Schedule:	Not a scheduled poison.

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 oxidising agents.

Hazardous decomposition products: When involved in a fire will emit toxic and noxious fumes.

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.

SECTION 11 TOXICOLOGICAL INFORMATION (Continued)**Potential Health Effects:****ACUTE EFFECTS**

Swallowed: Acute oral LD₅₀ > 5000 mg/kg. Low toxicity.

Eye: This product may cause physical eye irritation. Symptoms may include stinging and reddening of eyes and watering. The active ingredient, Metsulfuron, is not an eye irritant. Product may be irritating to the eyes.

Skin: Does not cause skin sensitisation. May be mildly irritating. Acute dermal LD₅₀ > 2000 mg/kg. Low toxicity.

Inhaled: LC₅₀ > 5.3 mg/L/4hr. Low toxicity.

Long Term Exposure:

Chronic toxicity: The following information is from repeated or prolonged exposure that occurred at higher levels than what would be expected in normal use:

Reproductive effects: Current evidence indicates that Metsulfuron does not adversely affect reproduction.

Teratogenic effects: Available evidence suggests that Metsulfuron is not teratogenic.

Mutagenic effects: There is no evidence that Metsulfuron is mutagenic.

Carcinogenic effects: There is no evidence that Metsulfuron is carcinogenic.

Fate in humans and animals: Metsulfuron is rapidly broken down and eliminated from the body. Excretion half lives range from 9 to 16 hours with low doses and 23 to 29 hours for high doses. Metsulfuron did not accumulate bioaccumulate.

SECTION 12**ECOLOGICAL INFORMATION**

Environmental Toxicology: Low toxicity to Birds; LD₅₀ > 2510 mg/kg (Mallard duck). LD₅₀ > 5620 mg/kg (Bobwhite quail). Low to moderate toxicity to rainbow trout LC₅₀ (96 hr) > 150 mg/L and Bluegill Sunfish LC₅₀ (96 hr) > 150 mg/L. Low toxicity to Daphnia magna EC₅₀ > 120 mg/L. Toxic to algae EC₅₀ (72 hr) green algae 0.086 mg/L. Low toxicity to bees LD₅₀ > 44.3 µg/bee.

Environmental Fate: Metsulfuron break down in soils is largely dependent on soil temperature, moisture content, and pH. Metsulfuron will degrade faster under acidic conditions, and in soils with higher moisture content and higher temperature. Metsulfuron has a higher potential mobility in alkaline soils than in acidic soils, as it is more soluble under alkaline conditions. Metsulfuron is stable to photolysis, but will break down in ultraviolet light. Half-life estimates for metsulfuron-methyl in soil range from 14 to 180 days with an overall average of 30 days. Half-life values for soil include: clay – 178 days; sandy loam – 102 days; clay loam – 70 days, silty loam - 120-180 days. The dissipation time for metsulfuron-methyl was investigated in a mixed wood/boreal forest lake. The DT₅₀ in water was > 84 days when high concentrations of metsulfuron-methyl were applied, and 29.1 days at concentrations that might be expected if the chemical is applied for forestry uses. It is stable to hydrolysis at neutral and alkaline pH's, and has a half-life of 3 weeks at pH 5.0, 25°C and >30 days at 15°C.

Metsulfuron-methyl is rapidly taken up by plants at the roots and on foliage. The chemical is translocated throughout the plant, but is not persistent. It is broken down to non-herbicidal products in tolerant plants.

SECTION 13**DISPOSAL CONSIDERATIONS**

Spills and Disposal: Persons involved in cleanup require adequate skin protection - see section 8. In case of spillage, contain 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. 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 3082. (See special provision AU01).

Marine and Air Transport: Apparent Bow Saw 600 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 Metsulfuron). 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. 65114.

This product is not classified as a Hazardous Substance under the criteria of Safe Work Australia. This product is classified as hazardous under GHS (environmental classification).

This product is not classified as a Dangerous Good according to the ADG Code for packs less than 3000 litres (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 September 2015. Valid for 5 years till 22 September 2020. (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).

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.

Mutagenic: Capable of inducing a genetic mutation in an organism.

Neurotoxicity: An adverse change in the structure or function of the nervous system.

Oedema: Accumulation of fluid in tissues.

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. "Search Hazardous Substances". Safe Work Australia 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