SAFETY DATA SHEET

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **Apparent Bensulfuron 600 WG Herbicide**

Other Names:	Bensulfuron-methyl. Group B Herbicide. Sulfonyl urea herbicide.
Use:	A systemic agricultural herbicide for use in rice.
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:
Sensitization - Skin: Category 1, 1A, 1B.
Hazardous to the Aquatic Environment – Long-Term Hazard: Category 2.

Signal Word: WARNING.

Hazard statements:
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements:
Prevention:
P261 Avoid breathing dust, mist, vapours or spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P321 Specific treatment (see Safety Directions on this label).
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
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*
Bensulfuron-methyl	83055-99-6	600 g/kg
Other ingredients determined not to be hazardous		Balance

SECTION 4 FIRST AID MEASURES

FIRST AID

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

Eye contact: Brush granules gently away. 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: Brush granules gently off clothing and skin. Remove contaminated clothing. Wash skin thoroughly with soap and water. If skin is irritated, seek medical advice.

Inhalation: Remove to fresh air and observe until recovered. Not likely to be an inhalation hazard.

Advice to Doctor: Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazard: Not readily combustible. Generally considered a low risk.

Extinguishing media: Extinguish fire using carbon dioxide, foam or dry agent. If waterspray is used, contain all runoff. Contain all runoff. If area is heavily exposed to fire, and if conditions permit, let fire burn itself out as water may increase the area contaminated.

Hazards from combustion products: Not readily combustible, however the material can emit toxic fumes when incinerated. Will not polymerise.

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. Like most organic powders or crystals, under severe dusting conditions, this material may form explosive mixtures in air.

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. In the case of spillage, stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recoverable material into labelled containers for use as per the label, recycling or dispose as 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. 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: Product will irritate the eyes. Do not inhale dust. When preparing the spray and using the prepared spray wear goggles. If product in eyes wash out immediately with water. Wash hands after use. After each day's use, wash goggles.

SECTION 7 HANDLING AND STORAGE (Continued)

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 this product

Biological Limit Values:
No biological limit allocated.

Engineering controls:
Use in ventilated areas. Keep containers closed when not in use. No special engineering controls are required.

Personal Protective Equipment (PPE):
General: When preparing the spray and using the prepared spray wear goggles. If product in eyes wash out immediately with water. Wash hands after use. After each day's use, wash goggles.

Personal Hygiene: Product will irritate the eyes. Do not inhale dust. 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 tan granule.
Odour:	Mild sweet odour.
Boiling point:	Not applicable - solid.
Freezing point:	Not applicable - solid.
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 away from strong oxidizing agents.

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

Hazardous decomposition products: if involved in a fire the product can emit toxic fumes. Will not polymerise.

Hazardous reactions: Avoid contact of the concentrate with strong alkalis and alkaline materials such as lime.

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 LD_{50} > 5000 mg/kg (rats).

Eye: This product may be irritating to the eyes due to the granular nature of the product.

SECTION 11 TOXICOLOGICAL INFORMATION (Continued)

Skin: This product may be sensitising to the skin. Acute dermal LD_{50} > 2,000 mg/kg.

Inhaled: Inhalation of mists or sprays may produce respiratory irritation.

Chronic effects

Repeated and long term ingestion exposures with Bensulfuron-methyl caused decreased body weight, increased liver weight, pathological changes of the liver and kidneys, anaemia, and altered haematology and clinical chemistry. Single inhalation exposure caused decreased body weight with nasal and ocular discharge. In animal testing Bensulfuron-methyl has not caused carcinogenicity or reproductive toxicity. Animal data show developmental effects only at exposure levels producing other toxic effects in the adult animal. No-Observed-Adverse-Effect-Level (NOAEL) for the development study was 300 mg/kg in rabbits. The NOAEL in rats for maternal and foetal toxicity was 1320 mg/kg. Tests have shown that Bensulfuron-methyl did not cause genetic damage in bacterial or mammalian cell cultures, or in animals.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: No data is available on this product. The active ingredient, Bensulfuron-methyl, has moderate to low toxicity to birds LD_{50} > 2510 mg/kg (Mallard duck) and > 5620 mg/kg (Bobwhite quail). Moderate toxicity to fish with 96 hour LC_{50} > 66 mg/L (Rainbow trout); > 120 mg/L (Bluegill sunfish). Very toxic to algae LD_{50} 0.0214 mg/L (green algae).

Environmental Fate: In moist field soils, Bensulfuron-methyl was degraded via chemical hydrolytic degradation and microbial processes, with a DT_{50} of 3 – 4 weeks. The crop selectivity of Bensulfuron-methyl was due to a slower rate of translocation from roots to shoots in tolerant rice and, more importantly, an increased rate of metabolism in rice *vs*. weed species. In mammals (rats and goats), bensulfuron-methyl was metabolised and rapidly eliminated.

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: Store in the closed, original container in a cool well-ventilated area, away from children, animals, food, feedstuffs, seeds. Do not store for prolonged periods in direct sunlight. Store apart from fertilisers, insecticides and fungicides. Reseal immediately after use. 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 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.

Marine and Air Transport: Apparent Bensulfuron 600 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:-

SECTION 14 TRANSPORT INFORMATION (Continued)

UN 3077, Class 9 (Miscellaneous Dangerous Goods), Packing Group III, Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Contains 60% Bensulfuron-methyl). 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 exempt from poison scheduling.
This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 66177.
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 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: 14 June 2016. Valid for 14 years till June 2021. (Updated 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.
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.
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”. HSIS - 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.