SAFETY DATA SHEET

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **Apparent Sci-Fi 500 SC Herbicide**

Other Names:	Ethofumesate, Group J Herbicide.
Use:	A liquid selective agricultural Herbicide.
Company:	AIRR Apparent Pty Ltd.
Address:	15/16 Princes Street, Newport NSW 2106.
ACN/ABN:	153 573 641.
Phone:	03 5820 8400
Email:	enquiries@apparentag.com.au
Emergency Contact:	Mobile number 0437 303 689

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*.

** Not subjected to the ADG code when transported in Australia by Road or Rail in packages 500 kg (L) or less; or in IBC's (refer to SP AU01). However, if transported by Air or Sea, this provision does not apply. Then the product is classed as a Dangerous Good (Class 9 Environmentally Hazardous) by IATA and IMDG respectively. See Section 14 of this SDS for details.

* 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 of the substance/mixture:
Hazardous to the Aquatic Environment – Long term (Chronic) hazard: Category 2.

Signal Word: [No signal word].

Hazard statements:
H411 Toxic to aquatic life with long-lasting effects.

Precautionary Statements:
Prevention:
P273 Avoid release to the environment.

Response:
P391 Collect spillage.

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

Pictograms:



SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL	*CAS NUMBER*	*PROPORTION*
Ethofumesate	26225-79-6	500 g/L
Propylene glycol	57-55-6	< 10%
1,2-benzisothiazol-3(2H)-one	2634-33-5	0.005 - <0.05%
Other ingredients determined not to be hazardous		Balance

SECTION 4 FIRST AID MEASURES

FIRST AID

Ingestion: If swallowed do NOT induce vomiting. If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 131 126. Rinse mouth and give water to drink. Make every effort to prevent vomit from entering the lungs by careful placement of the patient.

Eye contact: Immediately 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: Immediately remove contaminated clothing. Wash skin with soap and water thoroughly 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.

Advice to Doctor: No specific antidote. Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazard: Not flammable. There is little risk of an explosion from this product if commercial quantities are involved in a fire.

Extinguishing media: Not combustible, use extinguishing media suited to burning material. If waterfog or fine water spray is used, ensure all runoff is contained. Contain all runoff.

Hazards from combustion products: Product will decompose when burnt and will emit toxic and noxious fumes. Hazardous combustion products include oxides of carbon and sulphur and other toxic gases and vapours.

Precautions for fire-fighters and special protective equipment: Isolate fire area. Evacuate downwind residents. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk to of exposure to vapour or smoke. Do not breathe smoke or vapours generated.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Emergence procedures: Wear cotton overalls, buttoned to the neck and wrist (or equivalent clothing) and elbow-length PVC gloves. In the case of spillage, stop leak if safe to do so, and contain spill. Prevent spillage entering drains or watercourses. Contain and absorb spilled material with absorbent material such as sand, clay, cat litter or material such as vermiculite. Collect recoverable product for use as labelled on the product. Vacuum, shovel or pump contaminated spilled material into an approved container and dispose of waste as per the requirements of Local or State Waste Management Authorities. Keep out animals and unprotected persons. Launder protective clothing before storage or re-use.

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.

SECTION 7 HANDLING AND STORAGE

Precautions for Safe Handling: May irritate the eyes and skin. Avoid contact with eyes and skin. Wash hands after use. After each day's use, wash gloves 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. It is recommended that the storage temperature never exceed 30°C. Protect from freezing.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:
Exposure guidelines have not been established for this product by Safe Work Australia. However, one ingredient has the following Safe Work Australia guideline.

Atmospheric Contaminant	Exposure Standard (TWA)	STEL (mg/m³)
Propylene glycol (Vapour & particulates)	474mg/m³ (150 ppm)	-

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: Although no specific personal protective equipment is required when using this product, it is good occupational practice to wear suitable personal protective equipment such as overalls and chemical resistant gloves. Avoid contact with eyes and skin. Wash hands after use.

Personal Hygiene: 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 coloured liquid suspension.
Odour:	Characteristic.
Boiling point:	No data.
Freezing point:	No data.
Specific Gravity:	Approximately 1.1 g/mL.
Solubility in Water:	Emulsifies in water.
pH:	6 – 7.5 (100%)
Flammability:	Not flammable.
Corrosive hazard:	Not corrosive.
Flashpoint (°C):	Not flammable.
Poisons Schedule:	This product is a schedule 5 (S5) poison.
Formulation Type:	Suspension Concentrate.

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. Protect from freezing.

Incompatible materials: Strong oxidising agents and strong alkalis.

Hazardous decomposition products: When involved in a fire will emit toxic and noxious 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: May be harmful if swallowed.

Eye: This product may cause eye irritation. Symptoms may include stinging and reddening of eyes and watering. If exposure is brief, symptoms should disappear once exposure has ceased.

Skin: May cause mild irritation of the skin. LD_{50} > 2000 mg/kg (similar product). Possible sensitiser by skin contact.

Inhaled: May be harmful if inhaled. Product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

Long Term Exposure:

Chronic toxicity: No evidence has been obtained of mutagenic, carcinogenic, teretogenic, neurogenic or reproductive effects.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: Ethofumesate is moderately toxic to fish with LC_{50} = 10.92 mg/L for Carp (96 hr), highly toxic to certain aquatic invertebrates with 48-hour LC_{50} = 13.52 mg/L for *daphnia magna*. Low toxicity to algae with EC_{50} > 52.8 mg/L for Duckweed (*Lemna minor*) (7 dayr). Moderate toxicity to earthworms with LC_{50} > 134 mg/kg and bees with acute Oral and Contact LD_{50} > 50 µg/bee.

Environmental Fate:
Ethofumesate is moderately mobile in soils. DT_{50} (typical) = 21.6 days. Bioaccumulation is not expected to occur. Ethofumesate BCF = 144. Stable in water sediment with a DT_{50} =591 days, but a DT_{50} = 20 days in water phase only.

SECTION 13 DISPOSAL CONSIDERATIONS

Spills and Disposal: Persons involved in cleanup require adequate skin protection - see Section 8. Spills and Disposal: 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. In rural areas contact ChemClear http://www.chemclear.com.au for help with collection of unwanted rural chemicals.

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 exempt from classification as a Dangerous Good in packs less than 500 kg (L) or less; or in IBC's 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 Sci-Fi 500 SC 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 3082, Class 9 (Miscellaneous Dangerous Goods), Packing Group III, Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Ethofumesate). Hazchem code ●3Z. Hazard Identification Number (HIN) 90.

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. 89045.
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 in packages 500 kg (L) or less; or in IBC's (refer to SP AU01). However, if transported by Air or Sea, this provision does not apply. 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: 18 June 2021. Valid for 5 years till 18 June 2026. (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).
Ataxia:	Inability to control the coordinate movements of the muscles.
Carcinogen:	An agent which is responsible for the formation of a cancer.
DT_{50}:	Degradation half-life – is defined as the time it takes for an amount of a compound to be reduced by half through degradation.
Genotoxic:	Capable of causing damage to genetic material, such as DNA.
HCIS:	Hazardous Chemical Information System.
Mutagenic:	Capable of inducing a genetic mutation in an organism.
LD_{50}:	Median Lethal Dose A statistically derived single dose of a substance that can be expected to cause death in 50% of dosed animals.
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. "Hazardous Chemicals Information System". Safe Work Australia HCIS website. (2021).
2. "Classifying Hazardous Substances" Safe Work Australia. August 2018.
3. Globally Harmonized System of Classification and Labelling of Chemicals (GHS). United Nations, 2017 (7^{th} 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.