

SAFETY DATA SHEET

SECTION 1

IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **Apparent Salvo 212 Herbicide**

Other Names: Salvo, Fluazifop-P as the butyl ester, Group "A" Herbicide.
Use: An agricultural grass herbicide.
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.
Combustible Liquid (C1).**

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 Dangerous (Class 9 Environmentally Hazardous) by IATA and IMDG respectively. See Section 14 of this SDS for details.

Global Harmonization System (GHS) classification:

Flammable Liquids: Hazard Category 4.
Aspiration Hazard: Hazard Category 1.
Specific Target Organ Toxicity (Single Exposure): Hazard Category 3.
Reproductive Toxicity: Hazard Category 1.
Hazardous to the Aquatic Environment - Long-Term Hazard: Hazard Category 2.

Signal Word: DANGER.

Hazard statements:

H227 Combustible liquid.
H304 May be fatal if swallowed and enters airways.
H336 May cause drowsiness or dizziness.
H360 May damage the unborn child.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing mist, vapours or spray.
P271 Use only outdoors or in a well ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P304 + P340 IF INHALED: Call a POISON CENTRE or doctor if you feel unwell.

SECTION 2 HAZARDS IDENTIFICATION (Continued)**Response (Cont):**

P308 + P313	IF exposed or concerned: Get medical advice/ attention:
P312	Call a POISON CENTRE or doctor.
P331	Do NOT induce vomiting.
P70 + P378	In case of fire use carbon dioxide, foam or dry agent to extinguish.
P391	Collect spillage.

Storage:

P403 + P233	Store in a well ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents/container in accordance with national regulations.
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Pictograms:**SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS****Ingredients:**

CHEMICAL	CAS NUMBER	PROPORTION
Fluazifop-P present as the butyl ester	69806-50-4	212 g/L
Solvent naphtha petroleum, heavy aromatic	64742-94-5	685 g/L
Other ingredients determined not to be hazardous		Balance

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

- Ingestion:** If swallowed do NOT induce vomiting. Rinse mouth with water and give water to drink. If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 131 126.
- Eye contact:** Immediately hold eyes open and flood with plenty of 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 occurs and persists, seek medical advice.
- Skin contact:** Immediately remove contaminated clothing and wash skin with soap and water. If skin irritation persists, seek medical advice.
- Inhalation:** Remove to fresh air and observe until recovered. If effects persist, seek medical advice.

Advice to Doctor: The formulation contains liquid hydrocarbons that can cause severe pneumonitis or fatal pulmonary oedema if aspirated. Consideration should be given to gastric lavage with an endotracheal tube in place. For acute or short term repeated exposures to petroleum distillates or related hydrocarbons, the primary threat to life, from ingestion and/or inhalation, is respiratory failure. Patients should be quickly evaluated for signs of respiratory distress.

SECTION 5**FIRE FIGHTING MEASURES**

Specific Hazard: Combustible liquid (C1). Flash point > 62°C.

Extinguishing media: Extinguish fire using carbon dioxide, foam or dry agent. If not available, use waterfog or fine water spray but ensure all runoff is contained. Contain all runoff.

Hazards from combustion products: Sealed, overheated containers may present an explosion hazard. Thermal decomposition and burning will produce toxic by-products. Fire-fighters to wear self-contained breathing apparatus and suitable protective clothing if risk to of exposure to vapour or smoke.

SECTION 5 FIRE FIGHTING MEASURES (Continued)

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. Avoid contamination with oxidising agents (i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc.) as ignition may result.

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 neck and wrist and a washable hat, elbow length PVC gloves, face shield or goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, the use of a respirator is recommended. Eliminate all sources of ignition.

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.

Material and methods for containment and cleanup procedures:

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. 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. May irritate the eyes and skin. Avoid contact with eyes and skin. When preparing spray and using the product wear, elbow-length PVC gloves; and face shield. If product or spray 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.

Conditions for Safe Storage: This product is classified as a C1 (Combustible Liquid) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to state regulations for storage and transport requirements. Do not store or use near naked flame, or heat sources. Do not cut or weld container.

This product is a Schedule 6 Poison (S6) and must be stored, transported and sold in accordance with the relevant Health Department regulations. 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:

Exposure guidelines have not been established for this product by Safe Work Australia. However the following standard may apply:

Atmospheric Contaminant	Exposure Standard (TWA)	STEL (mg/m ³)
Aromatic hydrocarbons	100 ppm	Not set

TWA = Time-weight Average

Biological Limit Values:

No biological limit allocated.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION (Continued)**Engineering controls:**

Keep containers closed when not in use. Use in ventilated areas adequate to keep exposure below the TWA. Ensure that the work environment remains clean and that vapours and mists are minimised.

Personal Protective Equipment (PPE):

General: When preparing spray and using the product, wear elbow-length PVC gloves and face shield. If product or spray 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.

Personal Hygiene: May irritate the eyes and skin. Avoid contact with eyes and skin. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash contaminated clothing and safety equipment.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Dark amber coloured liquid.
Odour:	Hydrocarbon odour.
Boiling point:	No data available.
Freezing point:	No data available.
Specific Gravity:	1.04 at 20°C.
Solubility in Water:	Emulsifies in water.
pH:	No data.
Flammability:	Combustible liquid (C1).
Flashpoint (°C):	> 70°C.
Poisons Schedule:	This product is a Schedule 6 (S6) poison.
Decomposition temp:	No data.
Formulation Type:	Emulsifiable Concentrate (EC).

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: Store in the closed original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.

Incompatible materials: Avoid strong oxidising agents and strong acids or bases.

Hazardous decomposition products: Heating may cause expansion or decomposition leading to violent rupture of containers. Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke and other toxic gases.

Hazardous reactions: Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result. Polymerisation is unlikely.

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 LD₅₀ > 2,000 mg/kg. Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result.

SECTION 11 TOXICOLOGICAL INFORMATION (Continued)

- Eye:** The concentrate can cause irritation of the eyes. May cause redness, pain and discomfort. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly.
- Skin:** May cause skin irritation. Acute dermal LD₅₀ > 2,000 mg/kg. Skin contact with the solvent may have a degreasing action on the skin.
- Inhaled:** The material can cause respiratory irritation in some persons. Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination. Inhalation hazard is increased at higher temperatures. If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death.

Chronic toxicity: In animal studies, results from animal tests indicated that repeated or prolonged exposure produced liver and kidney disorders and embryo/foetotoxic effects. Short term tests have shown that fluzifop-p is unlikely to be carcinogenic, teratogenic and is not mutagenic.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: The following information refers to the active ingredient, fluzifop-p. Toxicity to fish is high - rainbow trout LC₅₀ (96 h) = 1.07 mg/L. Toxicity to Water flea, *Daphnia magna*, EC₅₀ (48 h) > 1 mg/L. Low toxicity to birds - mallard duck LD₅₀ > 3528 mg/kg. Very low toxicity to bees – contact LD₅₀ > 0.2 mg/kg. DO NOT contaminate streams, rivers or water courses.

Environmental Fate: The active ingredient, fluzifop-p butyl, has a high potential to bioaccumulate in aquatic species. Soil mobility is low and there is rapid degradation in most soils.

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. 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: Apparent Salvo 212 Herbicide is exempt from classification as a Dangerous Good in packs 500 kg (L) or less; or in IBC's under the Australian Code for the Transport of Dangerous Goods by Road and Rail. (See special provision AU01). For bulk shipments this product is a class 9, UN 3082.

Marine and Air Transport: Apparent Salvo 212 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 Fluzifop-P). Hazchem code ●3Z. 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. 67039.

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

This product is not classified as a Dangerous Good in packages 500 kg (L) or less; or in IBC's 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: 20 February 2019. Valid for 5 years till 20 February 2024. (Correcting poison scheduling).

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". Safe Work Australia HSIS website. (2019).
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