



SAFETY DATA SHEET

SECTION 1

IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Apparent Shaft Herbicide

Other Names: Pinoxaden. Group 1 Herbicide.
Use: An agricultural herbicide.
Company: AIRR Apparent Pty Ltd.
Address: 15/16 Princes Street, Newport NSW 2106.
Phone Number: 03 5820 8400
Email: enquiries@apparentag.com.au
Emergency Contact: 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.
Combustible Liquid (C1).**

Globally Harmonised System (GHS) classification of the substance/mixture:

Flammable Liquids: Hazard Category 4.
Aspiration Hazard: Hazard Category 4.
Skin Corrosion/Irritation: Hazard Category 2.
Sensitization – Skin: Hazard Category 1, 1A, 1B.
Eye Damage/Irritation: Hazard Category 2B.
Acute Toxicity – Inhalation: Hazard Category 4.
Specific Target Organ Toxicity (Single Exposure): Hazard Category 3.
Reproductive Toxicity: Hazard Category 1.
Hazardous to the Aquatic Environment – Long Term Hazard – Hazard Category 3.

Signal Word: DANGER.

Hazard Statements:

H227 Combustible Liquid
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H360D May damage the unborn child.
H412 Harmful to aquatic life with long-lasting effects.
AUH066 Repeated exposure may cause skin dryness and cracking.

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 flames and hot surfaces. – No smoking.
P261 Avoid breathing mist, vapours or spray.
P264 Wash hands, arms and face thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.

SECTION 2**HAZARDS IDENTIFICATION****Prevention (Cont):**

- P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

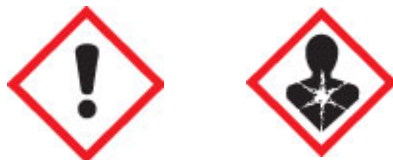
- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor.
 P330 Rinse mouth.
 P331 Do NOT induce vomiting.
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P304 + P340 IF INHALED: Remove victim to fresh air and keep comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308 + P313 IF exposed or concerned: Get medical advice:
 P312 Call a POISON CENTER or doctor if you feel unwell.
 P321 Specific treatment see Safety Directions on product label.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P362 Take off contaminated clothing and wash it before reuse.
 P370 + P378 In case of fire use carbon dioxide, alcohol resistant foam or dry agent for extinction.
 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.

Pictograms:**SECTION 3****COMPOSITION/INFORMATION ON INGREDIENTS****Ingredients:**

CHEMICAL	CAS NUMBER	PROPORTION
Pinoxaden	243973-20-8	100 g/L
Cloquintocet-mexyl	99607-70-2	25 g/L
Liquid hydrocarbon	64742-94-5	583 g/L
N-Methyl-2-pyrrolidone	872-50-4	100 g/L
Acetophenone	98-86-2	10-15%
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 and give water to drink.
- Eye contact:** Immediately hold eyes open and flood 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 attention.
- Skin contact:** Remove contaminated clothing. Wash skin with soap and water. If skin is irritated and persists, seek medical advice.
- Inhalation:** Remove to fresh air and observe until recovered. If irritation or symptoms persist more than about 30 minutes, seek medical advice.

SECTION 4 FIRST AID MEASURES (Continued)

Advice to Doctor: Treat symptomatically. If vomiting occurs, solvent present may cause pulmonary pneumonitis.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazard: Combustible liquid (C1) – Flash point 79°C.

Extinguishing media: Extinguish fire using carbon dioxide, alcohol resistant foam or dry agent. If waterspray is used, contain all runoff.

Hazards from combustion products: There is a risk of an explosion from this product if commercial quantities are involved in a fire. On heating will emit toxic fumes and irritating vapours. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk 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 ACCIDENTAL RELEASE MEASURES

Emergency procedures: In the event of a major spill, prevent spillage from entering drains or water courses. Remove all sources of ignition. As a minimum, wear overalls, a washable hat, elbow length PVC gloves and face shield or goggles.

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:

Will irritate the eyes, nose, throat and skin. Do not inhale vapour. Avoid contact with eyes and skin. Repeated exposure may cause allergic disorders. When opening the container and preparing the spray, wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow-length chemical resistant gloves and a face shield or goggles. If clothing becomes contaminated with product, remove clothing immediately. If product on skin, immediately wash the area with soap and water. Wash hands after use. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

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. Not classified as a Dangerous Good by the ADG. 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. Do not store near naked flames or ignition sources.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:

Exposure guidelines have been established for N-methyl pyrrolidone by Safe Work Australia.

SECTION 8**EXPOSURE CONTROLS / PERSONAL PROTECTION**

Atmospheric Contaminant	Exposure Standard (TWA)	STEL (mg/m ³)
N-methyl pyrrolidone	103 mg/m ³ (25 ppm)	309 mg/m ³ (75 ppm)

TWA = Time-weight Average. STEL = Short Term Exposure Limit

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 normally required.

Personal Protective Equipment (PPE):

When opening the container and preparing the spray, wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow-length chemical resistant gloves and a face shield or goggles..

Personal Hygiene: Product will irritate the eyes, nose, throat and skin. Do not inhale vapour. Avoid contact with eyes and skin. Repeated exposure may cause allergic disorders. If clothing becomes contaminated with product, remove clothing immediately. If product on skin, immediately wash the area with soap and water. Wash hands after use. After each day's use, wash gloves, face shield or 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:	Clear, yellow to orange liquid.
Odour:	Aromatic odour.
Boiling point:	No data available.
Freezing point:	No data available.
Solubility in Water:	Emulsifies in water.
pH:	3 – 7 (1% w/w).
Specific Gravity:	Approximately 1.03.
Flammability:	Combustible Liquid (C1).
Flash point:	> 79°C.
Poisons Schedule:	This product is a Schedule 5 (S5) 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: Avoid sources of ignition and extremes of temperature. Do not store in direct sunlight.

Incompatible materials: Keep away from strong oxidizing agents, strong acids and strong bases.

Hazardous decomposition products: When burnt will emit toxic and noxious fumes. Will not polymerise.

Hazardous reactions: No hazardous reactions known.

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: Harmful if swallowed. Possible symptoms of exposure include: headache, nausea, dizziness and weakness. Acute Oral LD₅₀ > 3000 mg/kg (rat).

Eye: This product can cause serious eye irritation.

SECTION 11 TOXICOLOGICAL INFORMATION (Continued)

Skin: This product is a skin irritant. Acute dermal LD₅₀ > 2,000 mg/kg (rat). Prolonged contact with the concentrate can cause defatting of the skin and may result in dermatitis.

Inhaled: May cause respiratory irritation, breathing difficulties, coughing and chest tightness. LC₅₀ > 5000 mg/kg. If aspirated into the lung, e.g. from vomiting, the presence of solvent may result in chemical pneumonitis or other lung damage.

Chronic toxicity: No evidence of carcinogenicity was observed in an acceptable/guideline carcinogenicity study in rats. The gavage carcinogenicity study in mice was conducted at doses as high as 750 mg/kg/day. No tumors were observed in other organs except adenomas/carcinomas in the lungs. However, the interpretation of the adenomas/carcinomas in the lungs was confounded by the gavage errors that may have introduced the dosing solution into the trachea and lungs, and perhaps leading to lung tumors and excessive mortality. No tumors were seen in the mouse dietary carcinogenicity study, however, the dosing considered to be inadequate due to the lack of significant systemic toxicity at doses up to 181.2 mg/kg/day (the study, performed under OECD and EPA guidelines, was terminated early for humanitarian reasons due to excessive decreases in body weight gain in the high dose animals). In the 90-day feeding study in mice, pinoxaden was tested up to 7000 ppm (1311 mg/kg/day; Limit Dose), and did not produce any tumors or severe toxicity. Pinoxaden was considered to be non-mutagenic. The overall evaluation is that pinoxaden is not likely to pose a cancer risk.

Safe Work Australia has classified N-Methyl-Pyrrolidone in the occupational environment as a reproduction category 2 substance – which indicates that there is sufficient evidence to provide a strong presumption that human exposure to the substance may result in impaired fertility. N-methyl-2-pyrrolidone caused testicular damage and male infertility in laboratory tests.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: Moderately toxic to fish *Oncorhynchus mykiss* (Rainbow Trout): LC₅₀ = 5.6 mg/L, 96 hour. Moderately toxic to *Daphnia magna* (Water flea): EC₅₀ = 3.2 mg/L, 48 hour. Moderately toxic to green algae *Pseudokirchneriella subcapitata* (Green algae): EbC₅₀ = 4.6 mg/L, 72 h ErC₅₀ = 9.7 mg/L, 72 hours.

Environmental Fate: Pinoxaden is not readily biodegradable. Pinoxaden is not persistent in soil (Degradation half-life: 0.1 - 1.8 days). Pinoxaden is not persistent in soil water (Degradation half-life: 0.3 days). Cloquintocet-mexyl is not readily biodegradable. Cloquintocet-mexyl is not persistent in soil (Degradation half-life: 2.4 days). Cloquintocet-mexyl is not persistent in water (Degradation half-life: 0.4 days). Pinoxaden has medium mobility in soil. Cloquintocet-mexyl is immobile in soil. Pinoxaden has low potential for bioaccumulation. Cloquintocet-mexyl does not bioaccumulate.

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 non re-fillable 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.

drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMuster symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program.

SECTION 14 TRANSPORT INFORMATION

Road & Rail Transport: This product is not classified as a Dangerous Good under the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Marine and Air Transport: Apparent Shaft Herbicide is not classified as a Dangerous Good according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA).

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 with the Australian Pesticides and Veterinary Medicines Authority. APVMA number 89220.

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

This product is not classified as a Dangerous Good according to the ADG Code (7th Ed).

This product is not 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: 25 November 2021. Valid for 5 years till 25 November 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).

Carcinogen: An agent which is responsible for the formation of a cancer.

EbC₅₀: The concentration of test substance which results in a 50 percent reduction in biomass growth relative to the control within 72hours exposure.

ErC₅₀: The concentration of test substance which results in a 50 percent reduction in growth rate relative to the control within 72hours exposure.

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

HSIS: Hazardous Substances Information System.

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. "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 (7th 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