

# SAFETY DATA SHEET

## SECTION 1

## IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name:**        **Apparent Clodinafop 240 EC Herbicide**

**Other Names:**            Clodinafop-Propargyl + Cloquintocet-Mexyl. Group "A" Herbicide,  
**Use:**                        A liquid agricultural 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](mailto: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).**

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

Flammable Liquids – Category 4.  
Aspiration Hazard: Category 1.  
Toxic to Reproduction: Category 2.  
Sensitization –Skin: Category 1, 1A, 1B.  
Specific Target Organ Toxicity (Repeated Exposure): Category 2.  
Hazardous to the Aquatic Environment – Long-Term Hazard – Category 1.

**Signal Word:** DANGER.

**Hazard statements:**

H227 Combustible liquid.  
H304 May be fatal if swallowed and enters airways.  
H317 May cause an allergic skin reaction.  
H360 May damage fertility or the unborn child.  
H373 May cause damage to organs through prolonged or repeated exposure.

**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/sparks/open flames/hot surfaces: — No smoking.  
P260 Do not breathe 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.  
P281 Use personal protective equipment as required.

*Response:*

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention:  
P314 Get medical advice/attention if you feel unwell.  
P321 Specific treatment (see Safety Directions on this label).  
P331 Do NOT induce vomiting.

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

P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P370 + P378	In case of fire: Use carbon dioxide, dry chemical or foam for extinction.
P391	Collect Spillage.

**Storage:**

P403 + P235	Store in a well-ventilated place. Keep cool.
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:**

<b>CHEMICAL</b>	<b>CAS NUMBER</b>	<b>PROPORTION</b>
Clodinafop-Propargyl	105512-06-9	240 g/L
Cloquintocet-Mexly	99607-70-2	60 g/L
N-Methyl pyrrolidone	872-50-4	100 g/L
Liquid hydrocarbon	64742-94-5	575 g/L
Other ingredients determined not to be hazardous		Balance

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

**Ingestion:** If swallowed do NOT induce vomiting. 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 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:** Remove contaminated clothing. Wash skin with soap and water. 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:** Treat symptomatically. The principal hazard is aspiration of the solvent into the lungs resulting in chemical pneumonitis; therefore, vomiting is not recommended, and lavage requires intubation. Activated charcoal and cathartics will assist gastrointestinal tract evacuation.

**SECTION 5****FIRE FIGHTING MEASURES**

**Specific Hazard:** This product is a C1 combustible liquid.

**Extinguishing media:** Use carbon dioxide, dry chemical or foam. If no alternative use water fog and contain all run off. If containers are ruptured contain all runoff.

**Hazards from combustion products:** Product will decompose when burnt and will emit toxic and noxious fumes (eg. oxides of carbon and/or nitrogen and hydrogen cyanide gas and oxides of sulphur can also be produced). Violent steam generation or eruption may occur if directed water stream is applied on hot liquids. Fire-fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or smoke. There is a risk of explosion if large quantities are involved in a fire.

## 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.

## 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 cotton overalls buttoned to the neck and wrist (or equivalent clothing), a washable hat, elbow-length butyl rubber gloves and 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.

In the case of spillage, stop leak if safe to do so, and contain spill. Absorb spilled material with absorbent material such as sand, clay or cat litter 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 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:** No smoking, eating or drinking should be allowed where material is used or stored. Harmful if swallowed. Will irritate the eyes and skin. Repeated exposure may cause allergic disorders. Avoid inhaling spray mist. Avoid contact with eyes and skin. When opening the container, preparing spray wear and using the product wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), a washable hat, elbow-length butyl rubber gloves and face shield or goggles. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with 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, face shield or goggles and contaminated clothing.

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

## 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 applies for one of the ingredients of this product:

Atmospheric Contaminant	Exposure Standard (TWA)	STEL (mg/m <sup>3</sup> )
N-Methyl-2-pyrrolidone	103 mg/kg (25 ppm)	309 mg/kg (75 ppm)

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

### Biological Limit Values:

No biological limit allocated.

### Engineering controls:

Keep containers closed when not in use. No special engineering controls are required, however make sure that the work environment remains clean and that vapours and mists are minimised.

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION (Continued)****Personal Protective Equipment (PPE):**

**General:** When opening the container, preparing spray wear and using the product wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), a washable hat, elbow-length butyl rubber gloves and face shield or goggles. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with 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, face shield or goggles and contaminated clothing.

**Personal Hygiene:** Harmful if swallowed. Will irritate the eyes and skin. Repeated exposure may cause allergic disorders. Avoid inhaling spray mist. Avoid contact with eyes and skin. 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**

<b>Appearance:</b>	Dark yellow, water thin liquid.
<b>Odour:</b>	Characteristic odour.
<b>Boiling point:</b>	No data available.
<b>Freezing point:</b>	No data available.
<b>Specific Gravity:</b>	1.06.
<b>Solubility in Water:</b>	Emulsifies in water.
<b>pH:</b>	Approximately 6 - 8.
<b>Flammability:</b>	Flammable.
<b>Flashpoint (°C):</b>	> 62°C.
<b>Poisons Schedule:</b>	This product is a Schedule 6 (S6) poison.
<b>Formulation type:</b>	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:** Do not store near naked flame or heat sources.

**Incompatible materials:** Avoid strong oxidizing agent such as chlorates, nitrates, peroxides etc.

**Hazardous decomposition products:** This product will decompose when burnt. Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds and oxides, in some circumstances hydrogen cyanide gas. Hydrogen cyanide is very poisonous.

**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.

**Potential Health Effects:****ACUTE EFFECTS**

**Swallowed:** Low acute oral toxicity. The estimated Acute Oral LD<sub>50</sub> (rat) > 5000 mg/kg. If aspirated into the lung – for example from vomiting, the presence of the solvents may result in chemical pneumonitis or lung damage.

**Eye:** This product may be a moderate irritant to the eyes.

**Skin:** This product may be a moderate irritant to the skin. Low acute dermal toxicity. The estimated LD<sub>50</sub> > 4000 mg/kg. May be sensitising to the skin. Prolonged contact with the concentrate can cause defatting of the skin and may result in dermatitis.

**Inhaled:** Inhalation of mists or sprays may produce respiratory irritation. The estimated LC<sub>50</sub> is > 3.5 mg/L/4 hours.

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**SECTION 11 TOXICOLOGICAL INFORMATION (Continued)****Long Term Exposure:**

**Clodinafop-propargyl technical** has been extensively tested on laboratory mammals and in test-tube systems. No evidence of mutagenic, teratogenic or reproductive effects was obtained. **Clodinafop-propargyl technical** induced liver toxicity and benign and malignant liver tumours in mice fed high daily doses over their lifetime. Rats fed high doses showed mild liver toxicity but did not develop tumours while no liver effects were observed for dogs fed high doses. The liver tumour finding occurring at high doses is believed due to **clodinafop-propargyl** inducing proliferative effects genetically pre-existing in mice and has no relevance to humans because the cellular changes which underlie it are rodent-specific and have been shown experimentally not to occur in primates.

**Cloquintocet-mexyl technical** has been extensively tested and no evidence of mutagenic, carcinogenic, teratogenic, or reproductive effects was obtained.

Safe Work Australia has classified N-Methyl-2-pyrrolidone in the occupational environment as a Carcinogen Category 2 substance.

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**SECTION 12 ECOLOGICAL INFORMATION**

**Environmental Toxicology:** No information is available for the product. The following information refers to the active ingredients. Clodinafop-propargyl technical is practically non-toxic to birds, crustaceans, earthworms, soil microorganisms and bees, and highly toxic to fish with  $LC_{50}$  (96 h) = 0.4 mg/L for rainbow trout. The formulated product is moderately toxic to fish and aquatic invertebrates  $LC_{50}$  (96 h) 4.9 mg/L for trout. DO NOT contaminate streams, rivers or water courses.

Cloquintocet-mexyl technical is practically non-toxic to birds, fish, crustaceans, earthworms, soil microorganisms and bees.

**Environmental Fate:** Average half-life of Clodinafop-propargyl in the field is 0.8 days. Average half-life of Cloquintocet-mexyl in the field is 5 days.

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**SECTION 13 DISPOSAL CONSIDERATIONS**

**Spills and Disposal:** Clear area of all unprotected personnel. Wear protective clothing and equipment including chemical resistant gloves. Prevent spill from spreading or entering waterways, sewers or underground drains. Absorb spill with absorbent material such as sand clay or cat litter. Place material into an approved drum. To decontaminate spill area, tools and equipment wash with a suitable solution (e.g. organic solvent, detergent, bleach or caustic) and add the solution to the drums of waste already collected. Dispose of drummed waste and decontamination solution in accordance with the requirements of Local Authorities 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.

Do not cut or saw empty containers, as there is the possibility that fumes inside the container maybe ignited and cause the container to explode.

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**SECTION 14 TRANSPORT INFORMATION**

**Road and Rail Transport:** Apparent Clodinafop 240 EC Herbicide is not classified as Dangerous Goods under the Australian Code for the Transport of Dangerous Goods by Road and Rail in containers less than 3000 litres. Bulk shipments should use UN 3082, as per below. (See special provision AU01).

**Marine and Air Transport:** Apparent Clodinafop 240 EC Herbicide is 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 3082, Class 9 (Miscellaneous Dangerous Goods), Packing Group III, Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains 24% Clodinafop-Propargyl). Not to be loaded with explosives (Class 1), oxidising agents (Class 5.1), organic peroxides (Class 5.2), however specific exemptions may apply. 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. 67006.

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 (7<sup>th</sup> Ed) in containers less than 3000 litres. (SP AU01) (7<sup>th</sup> 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: 9 June 2016. Valid for 5 years till 9 June 2021 (Revised 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.

NOHSC: National Occupational Health and Safety Commission.

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 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.*