SAFETY DATA SHEET

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **Apparent Pound 240 Herbicide**

Other Names:	Carfentrazone-ethyl, Group G Herbicide.
Use:	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
Fax Number:	03 9817 7845
Email:	wwardell@bigpond.net.au
Emergency Contact:	0411 227 338

SECTION 2 HAZARDS IDENTIFICATION

Classified as hazardous according to criteria of Safe Work Australia.
Classified as a Dangerous Good according to the ADG Code.
Combustible Liquid (C1).

GHS classification:

Aspiration Hazard: Category 1.
Flammable Liquids: Category 4.
Hazard to the Aquatic Environment - Acute Hazard: Category 1.

GHS Signal Word: DANGER.

Hazard statements:

H304 May be fatal if swallowed and enters airways.
H227 Combustible liquid.
H400 Very toxic to aquatic life.

Precautionary Statements:

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces: - No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P273 Avoid release to the environment.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331 Do NOT induce vomiting.
P370 + P378 In case of fire: Evacuate area.
P391 Collect spillage.

Storage and Disposal:

P405 Store locked up.
P403 + P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with national regulations.

Pictogram:

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

CHEMICAL	*CAS NUMBER*	*PROPORTION*
Carfentrazone-ethyl	128639-02-1	240 g/L
Liquid Hydrocarbons	64742-94-5	736 g/L
N-Methyl-2-pyrrolidone (NMP)	872-50-4	20 g/L
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. Wash mouth with water and give water to drink. Do NOT induce vomiting.

Eye contact: If in eyes, 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 advice.

Skin contact: Wash affected skin with soap and water. Remove contaminated clothing. If skin irritation persists, re-wash area and seek medical advice. Launder contaminated clothing before re-use.

Inhalation: Remove to fresh air and observe until recovered. If effects persist, seek medical advice.

Advice to Doctor: Carfentrazone-ethyl, the active constituent in this product, has generally low acute toxicity. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care. Treat symptomatically, mainly for hydrocarbon solvent ingestion. If the product has been aspirated into the lungs (ie. from vomiting), consider the possibility of chemical pneumonitis.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazard: Product is flammable. Flash point >93°C. Flammable liquid vapours may form explosive mixtures with air.

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

Hazards from combustion products: Product will decompose when burnt and will emit toxic fumes including oxides or carbon and nitrogen. Eruption of containers is likely if confined at high temperatures. Intact containers exposed to excessive heat should be cooled with water to reduce drum pressure.

Small fires: If area is heavily exposed to fire and if conditions permit, consider letting the fire burn itself out since water may increase the area contaminated. Cool containers / tanks with water spray.

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

Emergence procedures / Material and methods for containment and cleanup procedures:
Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear elbow-length PVC gloves and face shield or goggles.

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. Vacuum, shovel or pump spilled material into an approved container and dispose of waste as indicated in section 13 or according to the Australian Standard 2507 - Storage and Handling of Pesticides. Keep out animals and unprotected persons. Prevent spillage entering drains or watercourse.

After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. 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. Will irritate the eyes and skin. Avoid contact with eyes and skin. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. Wash hands after use. When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles. When using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length PVC gloves. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

Conditions for Safe Storage: Store 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. Do not re-use container for any purpose.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:

No exposure standard has been established by Safe Work Australia for this product.

Biological Limit Values:
No biological limit allocated.

Engineering controls:
Keep containers closed when not in use. No special engineering controls are generally required, however ensure adequate ventilation in the work environment. Keep containers closed when not in use.

Personal Protective Equipment (PPE):
When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles. When using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length PVC gloves. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

Personal Hygiene: Will irritate the eyes and skin. Avoid contact with eyes and skin. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. Wash hands after use. 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:	Yellow/orange liquid.
Odour:	No data available.
Boiling point:	No data available.
Freezing point:	No data available – solid at room temperature.
Specific gravity:	Approximately 1.0 g/mL.
Solubility in Water:	Product emulsifies in water.
pH:	No data available.
Flammability:	Combustible liquid.
Flashpoint (°C):	>93°C.
Poisons Schedule:	This product is a Schedule 5 (S5) poison.
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: Do not store for prolonged periods in direct sunlight. Avoid sources of ignition.

Incompatible materials: Keep away from strong oxidizing agents.

SECTION 10 STABILITY AND REACTIVITY (Continued)

Hazardous decomposition products: If burned it will produce oxides of carbon and nitrogen and other toxic fumes.

Hazardous reactions: 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 toxicity. Acute Oral LD_{50} > 4,000 mg/kg.

Eye: Mildly irritating to the eyes.

Skin: This product has a low dermal toxicity. The dermal LD_{50} in the rabbit is > 4000 mg/kg. It is non-sensitising to the skin. Skin contact may result in irritation with a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis.

Inhaled: Inhalation of mists or sprays may produce respiratory irritation. The estimated LC_{50} is > 6.3 mg/L/4 hours.

Long Term Exposure:
Studies with laboratory animals have shown this product to have low oral, dermal and inhalation toxicity. Signs of toxicity in laboratory animals included tremors, abdominal gripping, mucoid anal discharge, bloody oral discharge, hypothermia, squinting eyes, lacrimation, and pink to orange-brown discoloration of urine.

Chronic toxicity: In studies with laboratory animals, carfentrazone-ethyl did not cause reproductive toxicity, teratogenicity or carcinogenicity. An overall absence of genotoxicity has been demonstrated in tests of mutagenicity, DNA damage and chromosomal aberrations.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: No data is available on this product. Toxicity data is on the active constituent, Carfentrazone-ethyl. Carfentrazone-ethyl is toxic to algae (EC_{50} = 15 ppb), moderately toxic to fish (LC_{50} 1.6 to 2 mg/L) and slightly toxic to aquatic crustacean (LC_{50} = > 9.8 mg/L). Carfentrazone-ethyl was shown to cause no effects to earthworms at concentrations up to 820 mg/kg in soil. Carfentrazone-ethyl is slightly toxic to birds (LD_{50} > 2,250 mg/kg) and low toxicity to bees (no deaths at 200 µg/bee). Do not contaminate sewers, drains, dams, creeks or any other waterways with product or the used container.

Environmental Properties: Carfentrazone-ethyl is rapidly degraded in soils under aerobic and anaerobic conditions (half-life = 1 to 2 days). Carfentrazone-ethyl rapidly hydrolyses at pH 9 but stable at pH 5. Field studies show that Carfentrazone-ethyl has a low potential for movement in the soil. The Log P of 3.36 and a measured bioconcentration factor of 206 in fish, indicate a low potential for accumulation. The low vapour pressure (1.19×10^{-7} Torr) indicates that volatility is not a concern.

SECTION 13 DISPOSAL CONSIDERATIONS

Spills and Disposal: Persons involved in cleanup require adequate skin protection - wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. 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.

SECTION 13 DISPOSAL CONSIDERATIONS (Continued)

Disposal of empty containers: DO NOT RE-USE CONTAINER. Triple or preferably pressure 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 bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for the purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. Do not cut or weld metal containers. Vapours that form inside may create an explosion hazard. For help with disposal of empty containers contact DrumMuster http://www.drummuster.com.au for details for your area.

SECTION 14 TRANSPORT INFORMATION

Road & Rail Transport: Apparent Pound 240 Herbicide 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. (See special provision AU01).

Marine and Air Transport: Apparent Pound 240 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 Carfentrazone-ethyl). 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 5 poison.
This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 80696.
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 for packs less than 3000 litres (SP AU01) (7th Ed). This product is classified as a Dangerous Good by the 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 August 2015. Valid for 5 years till 14 August 2020. (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.
Combustible Liquid:	Liquids that ignite with a flash point greater than 60°C.
Flammable Liquid:	Liquids that ignite with a flash point less than 60°C.
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.
OCS:	Office of Chemical Safety.
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.

SECTION 16 OTHER INFORMATION (Continued)

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. (2015).
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