# SAFETY DATA SHEET

## SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **Apparent Bromoxynil + MCPA Selective Herbicide**

**Other Names:** Bromoxynil + MCPA, Group 6 & 4 Herbicide.
**Use:** A selective, post-emergence 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)**

**GHS Classification:**
Acute Toxicity – Inhalation: Category 4.
Acute Toxicity – Inhalation: Category 3.
Toxic to Reproduction: Category 2
Sensitization – Skin: Category 1, 1A, 1B
Acute Toxicity – Oral: Category 4.
Aspiration Hazard: Category 1
Acute Toxicity – Dermal: Category 4.
Flammable Liquids: Category 4
Hazardous to the Aquatic Environment – Long-Term Hazard: Category 1

**Signal Word**: DANGER.

**Hazard Statements:**
H227 Combustible Liquid.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H317 May cause an allergic skin reaction.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H361 Suspected of damaging fertility or the unborn child.
H410 Very 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/sparks/open flames/hot surfaces: — No smoking.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash (hands, arms and face) thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only in outdoors or in a well ventilated area.

## SECTION 2 HAZARDS IDENTIFICATION (Continued)

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 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention:
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P321 Specific treatment (see Safety Directions on product label).
P322 Specific measures (see First Aid Instructions on product label).
P330 Rinse mouth.
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 foam blanket, carbon dioxide or dry agent for extinction
P391 Collect spillage.

*Storage and Disposal:*

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container in accordance with national regulations.

**Pictograms:**

## SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

**Ingredients:**

| ***CHEMICAL*** | ***CAS NUMBER*** | ***PROPORTION*** |
|---|---|---|
| Bromoxynil (present as n-octanoyl ester) | 1689-99-2 | 200 g/L |
| MCPA (present as ethyl hexyl ester) | 94-74-6 | 200 g/L |
| Liquid Hydrocarbon | - | 343 g/L |
| Other ingredients determined not to be hazardous | | Balance |

## SECTION 4 FIRST AID MEASURES

### FIRST AID

**Ingestion:** If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label, or contact the Poisons Information Centre phone Australia 13 11 26. Make every effort to prevent vomit from entering the lungs by careful placement of the patient.

**Eye contact:** If in eyes, hold eyelids open and wash with copious amounts of water until chemical is removed. Seek medical advice if irritation develops or persists.

**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. Not expected to be a source of over-exposure.

## SECTION 4 FIRST AID MEASURES (Continued)

**Advice to Doctor:** The above first aid instructions are mandated by the Commonwealth Department of Health and Ageing via the National; Drugs and Poisons Schedule. These instructions are suitable for ingestion of spray solution and small amounts of concentrate; however if SUBSTANTIAL AMOUNTS of the concentrate have been swallowed (more than about 15 mL) AND if medical assistance is more than 30 minutes away, the induction of vomiting should be CONSIDERED, preferably based on MEDICAL ADVICE if a physician can be contacted by phone. All care must be taken to prevent vomit from being inhaled. Do not give anything by mouth to a semi-conscious or unconscious person. Treat symptomatically. If vomiting occurs, solvent present may cause pulmonary pneumonitis.

## SECTION 5 FIRE FIGHTING MEASURES

**Specific Hazard:** Flash point 75°C. Combustible liquid (C1).

**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. Contain all runoff.

**Hazards from combustion products:** If involved in a fire, it will emit harmful fumes of hydrogen bromide, hydrogen chloride, hydrogen cyanide and possibly other compounds of bromine, chlorine and nitrogen. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk to of exposure to vapour or smoke. Keep upwind.

**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 of exposure to vapour or smoke. Do not breathe smoke or vapours generated.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Emergence procedures:** 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.

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.

This product is a herbicide and spills can damage crops, pastures and desirable vegetation. Prevent from entering drains, waterways or sewers. Use earthen bunds or absorbent bunding to prevent spreading of spillage.

**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. Keep out animals and unprotected persons.

## SECTION 7 HANDLING AND STORAGE

**Precautions for Safe Handling:** No smoking, eating or drinking should be allowed where material is used or stored. Product is poisonous if inhaled or swallowed. Attacks the eyes and will irritate the skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. When preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist, a washable hat and elbow-length PVC gloves and face-shield or goggles. 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:** DO NOT store near (or allow to contact) fertilizers, fungicides or pesticides. Store in the closed original container, in a cool well ventilated area, out of direct sunlight. Store in a room or place away from children, animals, food, feed stuffs, seed and fertilizers. This

## SECTION 7 HANDLING AND STORAGE (Continued)

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

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Guidelines:**
Exposure guidelines have not been established for this product by Safe Work Australia however the manufacturer recommends the following guideline.

| Atmospheric Contaminant | Exposure Standard (TWA) |
|---|---|
| Total hydrocarbon | 100 mg/m³ (17 ppm) |

*TWA = Time-Weight Average*

**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 are minimised.

**Personal Protective Equipment (PPE):**
When preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist, a washable hat and elbow-length PVC gloves and face-shield or goggles. If product in eyes, wash it out immediately, with water.

Personal Hygiene: Product is poisonous if inhaled or swallowed. Attacks the eyes and will irritate the skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. 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. 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.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Appearance:** | Dark brown liquid. |
| **Odour:** | Typical solvent (hydrocarbon) odour. |
| **Boiling point:** | No data available. |
| **Freezing point:** | No data available. |
| **Specific Gravity:** | Approximately 1.1. |
| **Solubility in Water:** | Soluble. |
| **pH:** | 3.5 – 4.0 (1% solution). |
| **Flammability:** | Combustible liquid C1. |
| **Flashpoint (°C):** | 75°C. |
| **Poisons Schedule:** | This product is classified as a schedule 6 (S6) 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:** Avoid strong acids, bases and strong oxidizing agents.

**Hazardous decomposition products:** If involved in a fire, it will emit harmful fumes of hydrogen bromide, hydrogen chloride, hydrogen cyanide and possibly other compounds of bromine, chlorine and nitrogen.

**Hazardous reactions:** Violent reactions between this product and oxidising agents are possible. Avoid chlorates, nitrates, nitric acid, organic peroxides and potassium chlorate.

## 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:** Possible symptoms of exposure include: headache, nausea, dizziness and weakness. If aspirated into the lung, e.g. from vomiting, the presence of solvent may result in chemical pneumonitis or other lung damage. $LD_{50}$ (rat) = 238 mg/kg for Bromoxynil octanoate. $LD_{50}$ (rat) = 1300 mg/kg for MCPA 2EHE.

**Eye:** The product is an eye irritant.

**Skin:** Mild to Moderate skin irritant. Prolonged contact with the concentrate can cause defatting of the skin and may result in dermatitis. Bromoxynil octanoate is a skin sensitiser. $LD_{50}$ (rat) > 2000 mg/kg for Bromoxynil octanoate. $LD_{50}$ (rat) > 2000 mg/kg for MCPA 2EHE..

**Inhaled:** High vapour concentrations of the solvent while handling the concentrate are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, and may have other central nervous system effects. $LC_{50}$ (rat) = 0.72 mg/L/4hrs for Bromoxynil octanoate. $LC_{50}$ (rat) > 3.1 mg/L/4 hrs for MCPA 2EHE.

**Chronic Effects:** Chronic Overexposure: Weight loss and damage to liver and kidneys may be expected if exposure is excessive.

*Reproductive Toxicity:* Safe Work Australia has classified Bromoxynil octanoate in the occupational environment as a Carcinogen Category 3 substance. This means that the substance is not classifiable as to carcinogenicity to humans. This classification has been assigned on the basis of studies, in rats, rabbits and mice which show reduced ossification and increased incidence of supernumery ribs at doses (range 5 – 15 mg/kg/day) which are not toxic maternally.

Supernumery ribs are seen in control animals and are often seen in reproductive toxicity studies. The ribs disappear during subsequent development with rats, but not with mice. The significance of supernumerary species remain as an indicator of developmental toxicity and extrapolations to other species remain problematical.

## SECTION 12 ECOLOGICAL INFORMATION

**Environmental Toxicology:**
No data is available for the product, the following information is for the active ingredients. Product is very toxic to fish and toxic to some birds. Bromoxynil and MCPA are not toxic to bees.

| Test | Bromoxynil octanoate | MCPA 2EHE |
|---|---|---|
| $LC_{50}$ for Rainbow trout: | (96hr) 0.041 mg/L | (48hr) 1.15 mg/L for $LC_{50}$ |
| $LC_{50}$ for Daphnia magna: | (48 hr) 0.046 mg/L | - |
| $LC_{50}$ for Pheasants: | 50 mg/kg | - |
| $LC_{50}$ for Bobwhite quail: | 100 mg/kg | 377 mg/kg |

**Environmental Properties:**
Bromoxynil has low persistence in soil. In sandy soil $DT_{50}$ is about 10 days and in clay about 2 weeks. MCPA is also rapidly degraded with $DT_{50}$ ranging from 14 to 30 days.

## 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. 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)

If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).

**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.

EXPLOSION WARNING: "EMPTY" containers may contain liquid and/or vapour residue which can be explosive if exposed to an ignition source at temperatures above 90°C. Such conditions may occur during cutting or welding. DO NOT cut or weld these containers.

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

**Transport information:**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:** This product 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 Bromoxynil octanate). 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 6 poison.
This product is registered with the Australian Pesticides and Veterinary Medicines Authority. APVMA number 68401.
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) in packs less than 500 kg (L) or less; or in IBC's.
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: 5 November 2021. Valid for 5 years till 5November 2026. (5 year update).

Key to abbreviations and acronyms used in this MSDS:

| | |
|---|---|
| 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. |

## SECTION 16 OTHER INFORMATION (Continued)

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.
Ossification: The process of creating bone, that is of transforming cartilage or fibrous tissue, into bone.
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).
Supernumery In excess of the regular or normal number.

References

1. "Hazardous Chemicals Information System". Safe Work Australia HCIS website. (2020).
2. "Classifying Hazardous Substances" Safe Work Australia. August 2018.
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*