

# MATERIAL SAFETY DATA SHEET



## PCT International Pty Ltd

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## GAMMA HERBICIDE

Classified as hazardous according to criteria of NOHSC

### 1. IDENTIFICATION OF THE PRODUCT AND THE MANUFACTURER

**Product Name:** GAMMA herbicide  
**Product Code:** none  
**Product Use:** for non-residual control of Broadleaf and Grass Weeds.  
**Poison Schedule:** S5  
**Supplier:** PCT International Pty Ltd  
**ABN:** 44 101 170 923  
**Street Address:** Unit 5 / 74 Murdoch Circuit, ACACIA RIDGE QLD 4110  
**Telephone:** + 61 7 3711 7022  
**Facsimile:** + 61 7 3711 7055

**Emergency telephone No:** **1800 630 877** (all hours)

**Other Information:** This MSDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

**MSDS Creation Date:** 1<sup>st</sup> May, 2013

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

**Chemical Formulation Type:** Liquid solution

Ingredients	CAS Number	Concentration (g/L)
Glufosinate-ammonium	77182-82-2	200
Propylene glycol monomethyl ether	107-98-2	≤110
Other ingredients (including water)	(non hazardous)	≤800

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## 3. HAZARDS IDENTIFICATION

**Emergency Overview** hazardous substance ; non-dangerous goods

### Physical Appearance

**Form:** Liquid  
**Colour:** pale blue  
**Odour:** slight characteristic pungent odour  
**Water Solubility:** forms a solution  
**pH:** 5.9 – 7.9

### Potential Health Effects

**Eyes:** Temporary irritation to the eyes and conjunctivitis.  
**Skin:** Contact with the skin may cause irritation.  
**Ingestion:** The product is harmful if swallowed. Symptoms of poisoning include gastrointestinal discomfort, shivering, cramps, amnesia, nausea and vomiting.  
**Inhalation:** Inhalation of spray may cause transient irritation of mucous membranes of the nose, throat and respiratory tract.  
**Primary Routes of Entry:** Eyes, Skin, Inhalation, Ingestion  
**Target Organs:** Eyes, Skin, Respiratory Tract, Digestive System  
**Carcinogenicity:** Not listed by NTP, IARC, ACGIH or OSHA as a carcinogen

## 4. FIRST AID MEASURES

**Eyes:** Flush eye(s) for 15 minutes or more- If irritation persists, consult a doctor (preferably an eye specialist) and show this MSDS.  
**Skin:** Carefully remove any contaminated clothing, including footwear, and wash affected areas with plenty of soap and water.  
**Ingestion:** Rinse mouth and then drink plenty of water. Do not induce vomiting. If swallowed seek medical advice and show this MSDS.  
**Inhalation:** Remove affected person from site of exposure to fresh air until recovered. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Seek medical attention if symptoms persist.  
**First Aid Facilities:** If poisoning occurs, contact a doctor or Poisons Information Centre on **13 11 26** (Australia).  
**General Advice:** Remove soiled or soaked clothing immediately.  
**Information for doctor:** Treat symptomatically. Glufosinate-ammonium is a glutamine synthetase inhibitor and can interfere with neurotransmitter function.

## 5. FIRE-FIGHTING MEASURES

**Flash Point:** Non-flammable  
**Autoignition Temperature:** Not applicable.  
**Upper Explosion Limits:** Not applicable.  
**Lower Explosion Limits:** Not applicable.  
**Suitable Extinguishing Media:** Water spray, carbon dioxide, BCF, foam or dry chemical.  
**By-products in case of Fire:** Oxides of Carbon, Phosphorus & Sulphur, and other toxic substances.  
**Further Information:** Keep unnecessary persons away from the area. If safe to do so, remove intact containers, otherwise use water spray to cool them. Collect contaminated firefighting water separately, by bunding the area with sand or earth. Fire control water must not be discharged into drains.  
**Special Protective**

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**Equipment for Firefighters:** As in any fire, water, self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

### Methods for Cleaning Up/ Taking Up:

Spills: Dealing with spills has the potential to increase the risk of personal exposure- during such operations, ensure that protective clothing is worn as detailed below. Avoid contact with spilled material or contaminated surfaces. Keep people and animals away. Prevent spillage from entering drains, sewers or watercourses. If contamination thereof is unavoidable, warn the local water authority. Spills should be contained and absorbed with soil, sand, sawdust, clay, cat litter or other similar material, and once absorption is complete, this material then be placed in sealable, labeled, drums for safe disposal in an approved landfill, and in accordance with the requirements of local or State Waste Management Authorities. Alternatively, bury under at least 500<sup>mm</sup> of soil in an area away from crops, pastures, homes or water sources. To decontaminate spill area, tools and equipment, wash with a suitable solution, e.g. organic solvent, detergent, bleach or caustic, and add this material to the drums of waste already collected. Label all contents. Do not burn empty containers or product.

## 7. HANDLING AND STORAGE

### Advice on safe

**Handling:** Keep out of reach of children. Avoid contact with eyes and skin. Wash hands after use, and before smoking or eating / drinking. Wash protective gear and clothing after each day's use.

### Advice on protection against fire and explosion:

Not flammable- no special measures required.

**Storage information:** Keep product in the **original container**, tightly closed, in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight. Optimal storage temperature of product is within the range of 5°C – 30°C.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### General protective Measures:

Avoid contact with eyes and skin  
Do not inhale mists.

### Hygiene Measures:

No smoking, eating or drinking allowed when using this product.  
Wash hands before breaks and at end of work shift.  
Protective ointment is recommended.

### Respiratory Protection:

In case of formation of mists or vapours, an organic vapour cartridge respirator (properly fitting half-face or full-face) should be used.

### Hand Protection:

Elbow length PVC gloves should be worn when using this product.

### Eye Protection:

Safety goggles and/or face shield is recommended when using this product.

### Protective clothing:

Cotton overalls buttoned to the neck and wrist, and a washable hat, are required when using this product.

**Engineering Controls:** No specific recommendations since product is intended for open-air applications.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance:

Pale blue colored liquid

### Odour:

slight characteristic pungent odour.

### Solubility in Water:

Soluble.

### Specific Gravity

### (H<sub>2</sub>O=1):

approx. 1.12 @ 20°C

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**pH Value:** 5.9 – 7.9  
**Vapour Pressure:** non-volatile  
**Melting Temperature:** not measured  
**Boiling temperature:** 100°C approx.  
**Viscosity, dynamic:** not measured

## 10. STABILITY AND REACTIVITY

**Conditions to avoid:** None with proper storage and handling, other than extreme heat. Corrosive to mild steel, galvanized steel and zinc. Do not use galvanized steel tanks for mixing, storing or application of the product – the product may react with such containers to form ammonia gas.

### Thermal

**Decomposition:** Not measured.  
**Hazardous reactions:** No hazardous reactions with proper storage and handling  
**Hazardous Polymerization:** Unlikely to occur.  
**Stability:** Stable under normal conditions of storage and use.  
**Hazardous decomposition products:** None with proper storage and handling.

## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity - Oral:** LD<sub>50</sub> (rat) 1900 mg/kg approx.  
**Acute Toxicity - Inhalation:** LC<sub>50</sub> (rat) >4.28mg/L exposure time 4h method  
**Acute Toxicity - Dermal:** LD<sub>50</sub> (rabbit) >1380mg/kg  
**Eye Irritation:** (Species - rabbit) moderate irritant  
**Skin Irritation:** (Species - rabbit) mild irritant  
**Skin Sensitisation:** (Species - guinea pig) non-sensitising  
**Note:** harmful by inhalation and in contact with skin  
Irritant to skin  
The toxicological data refer to the undiluted 100% formulated product.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity Effects:**  
**Acute Toxicity – Fish:** LC<sub>50</sub> for rainbow trout is 711mg/L.  
**Acute Toxicity - Daphniae:** LC<sub>50</sub> for daphnia magna – 560 - 1000mg/L  
**Acute Toxicity – Bees:** not determined  
**Acute Toxicity – Birds:** LD<sub>50</sub> for Japanese Quail is >4640 mg a.i./Kg  
**Further ecological information:**  
**Ecological notes:** This product is classified as immobile in soil and is not expected to leach. Do not discharge product unmonitored into the environment. Glufosinate-ammonium is readily soluble in water and is stable. It is rapidly degraded in surface levels of soils and in water. The product is considered to be biodegradable. The potential for groundwater contamination with glufosinate-ammonium is minimal. The ecotoxicological data refer to the undiluted 100% product.

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## 13. DISPOSAL CONSIDERATIONS

**ALWAYS DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.**

**Product Disposal:** In accordance with local authority regulations, take to special waste incineration plant.

**Container Disposal:** Dispose of empty, used containers by triple rinsing, or preferably pressure rinsing. Add the rinsate to the spray tank or dispose of the rinsate in a disposal pit away from desirable plants and their roots and from watercourses. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return cleaned containers to a recycler or designated collection point. If not recycling, break, crush or puncture empty containers and bury in a local authority landfill. If no landfill available, bury the containers at least 500<sup>mm</sup> deep in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

## 14. TRANSPORT INFORMATION

**Storage and Transport:** Considered non – dangerous goods for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

## 15. REGULATORY INFORMATION

**APVMA Approval No:** 66733/5L/54283

**Risk phrases:** R21/22 Harmful in contact with skin and if swallowed.  
R36 Irritating to eyes.  
R48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.  
R60 May impair fertility.  
R63 Possible risk of harm to the unborn child.

**Safety Phrases:** S2 Keep out of reach of children.  
S13 Keep away from food, drink, and animal feeding stuffs.  
S24/25 Avoid contact with skin and eyes.  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
S46 If swallowed, seek medical advice immediately and show this container or label.

**Poisons Schedule:** S5

**Packaging & Labeling:**

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

**Hazard Category**

**AICS (Australia):** Listed on the Australian Inventory of Chemical Substances.

## 16. OTHER INFORMATION

**Contact Person/Point:** Mr David Pearson Phone: (07) 3711 7022

**This MSDS contains only safety-related information. For other data, see product literature.**

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...End of MSDS...