


# Patriot

## Section 1: Identification

Product name:	Patriot
Other names:	Soluble concentrate containing 200 g/litre glufosinate-ammonium.
Recommended use:	A non-selective contact herbicide for the control of a wider range of grasses, broad leaf weeds and clovers in a variety of crop land and non-crop land situations.
Manufacturer/Importer details:	Agritrade 1 Robin Mann Place Christchurch Airport PO Box 292, Christchurch 8140  Phone: 03 372 0890
24 hour emergency contact:	0800 CHEMCALL (0800 243622)
National Poisons Centre:	0800 POISON (0800 764766)

## Section 2: Hazard identification

	Product is classified as hazardous according to the Hazardous Substances (Classification) Notice 2017 of the HSNO Act, 1996.
HSNO Approval:	HSR000152
Hazardous classification:	3.1D, 6.1D, 6.3B, 6.4A, 6.8B, 6.9A, 9.1C, 9.2B, 9.3C
Pictograms:	
Signal word:	<b>DANGER</b>
Hazard statements:	H227 Combustible liquid. H302 Harmful if swallowed. H312 Harmful in contact with skin. H332 Harmful if inhaled. H316 Causes mild skin irritation. H319 Causes serious eye irritation. H361 Suspected of damaging fertility or the unborn child. H370 Causes damage to organs. H412 Harmful to aquatic life with long lasting effects. H422 Toxic to the soil environment. H433 Harmful to terrestrial vertebrates.
Prevention statements:	P102 Keep out of reach of children. P103 Read label before use. P202 Do not handle until all safety precautions have been read and understood. P210 Keep away from open flames and hot surfaces. No smoking.

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Response statements:	<p>P280 Wear protective gloves, protective clothing, eye and face protection.</p> <p>P264 Wash hands, arms and face thoroughly after handling.</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P260 Do not breathe spray mist.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P273 Avoid release to the environment.</p> <p>P370+P378 In case of fire: Use water spray, foam, dry powder or carbon dioxide for extinction.</p> <p>P101 If medical advice is needed, have product container or label at hand.</p> <p>P307+P311 IF exposed or concerned: Call a POISON CENTRE or doctor.</p> <p>P301+P312 IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.</p> <p>P330 Rinse mouth.</p> <p>P304+P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of soap and water.</p> <p>P363 Wash contaminated clothing before re-use.</p> <p>P332+P313 If skin irritation occurs: Get medical attention.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P337+P313 If eye irritation persists: Get medical attention.</p> <p>P391 Collect spillage.</p>
Storage statements:	<p>P403+P235 Store in a well-ventilated place. Keep cool.</p> <p>P405 Store locked up.</p>
Disposal statement:	<p>P501 Dispose of product and containers in accordance with local Regulations. See Section 13 for details.</p>

### Section 3: Composition/information on ingredients

Chemical identity of ingredients with health or environmental hazards:

<i>Ingredient</i>	<i>CAS No.</i>	<i>Proportion %w/v</i>
Glufosinate-ammonium	77182-82-2	20
Propylene glycol monomethyl ether	107-98-2	<10
Other ingredients	Proprietary	30 – 60
Water	7732-18-5	To 100

### Section 4: First-aid measures

Ingestion:	Do not induce vomiting. Rinse mouth. Call a POISON CENTRE or doctor if you feel unwell.
Inhalation:	Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor if you feel unwell.
Skin contact:	Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs get medical attention.

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Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.
First aid facilities:	Emergency showers and eyewashes to be available in the immediate vicinity of any potential exposure.
Advice to doctor:	Treat symptomatically.
<b>Section 5: Fire-fighting measures</b>	
Flammability:	Combustible liquid.
Appropriate extinguishing media:	Extinguish fire with foam, dry powder, carbon dioxide or water spray.
Hazardous decomposition products:	In a fire, irritant and toxic fumes containing oxides of carbon, nitrogen, phosphorus and sulphur and other toxic substances may be generated.
Special protective equipment and precautions for fire-fighters:	In the event of fire, wear self-contained breathing apparatus. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Prevent run-off from contaminating drains, sewers or waterways. Inform appropriate authorities immediately if product or run-off enters waterways.
HAZCHEM code:	2Z
<b>Section 6: Accidental release measures</b>	
Personal precautions:	Wear appropriate protective clothing (refer to Section 8) during clean-up. Exclude all bystanders from the vicinity.
Environmental precautions:	Prevent product entering drains or waterways by activating emergency shut-off valves or using bunding. Inform appropriate authorities immediately if spill enters sewers or waterways. Prevent chemical contaminating soil.
Procedure for clean up:	Contain spill and absorb with sand or inert absorbent material (e.g. vermiculite). Clean up spill immediately. Collect in sealed, labelled, open-top containers for disposal at an approved facility.
<b>Section 7: Handling and storage</b>	
Safe handling:	Read label before use. Avoid contact with eyes and skin. Avoid inhalation of spray mist. When mixing or applying, wear protective clothing (refer to Section 8). Wash hands and exposed skin after use. Wash protective clothing after use.
Safe storage:	Keep out of reach of children. Store in a place accessible by authorised persons only. Keep containers tightly closed in a cool, well-ventilated place. Keep away from strong oxidizing agents. The storage temperature should not exceed 30°C.

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## Section 8: Exposure controls/personal protection

Occupational exposure limits:	<i>Ingredient</i>	<i>CAS No.</i>	<i>WES-TWA</i>	<i>WES-STEL</i>
	Propylene glycol monomethyl ether	107-98-2	100ppm (369mg/m <sup>3</sup> )	150ppm (553 mg/m <sup>3</sup> )
Engineering controls:	Control process conditions to avoid contact. Use only in well-ventilated areas. If necessary, use local exhaust ventilation to keep airborne concentration below the exposure limits.			
Hand protection:	Elbow length, chemical resistant gloves.			
Eye protection:	Face shield.			
Skin protection:	Overalls and PVC or rubber boots.			
General hygiene:	Do not eat, drink or smoke while using. Wash hands and exposed skin thoroughly with soap and water before meals and after work. Wash protective clothing daily after work.			

## Section 9: Physical and chemical properties

(a)	Appearance:	Blue liquid.
(b)	Odour:	Odourless.
(c)	Odour threshold:	Not available.
(d)	pH:	5.2-6.2 in 5% aqueous solution.
(e)	Melting point/freezing point:	Not applicable.
(f)	Initial boiling point and boiling range:	96°C
(g)	Flash point:	>61°C <93°C
(h)	Flammability (solid, gas):	Not available.
(i)	Upper/lower flammability or explosive limits:	Not available.
(j)	Vapour pressure:	Low.
(k)	Vapour density:	Not available.
(l)	Relative density:	1.11
(m)	Solubility:	Soluble in water.
(n)	Partition coefficient: n-octanol/water:	Not available.
(o)	Auto-ignition temperature:	440°C
(p)	Decomposition temperature:	Not available.
(q)	Kinematic viscosity:	Not available.

## Section 10: Stability and reactivity

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Stability of the substance:	Product is unlikely to react or decompose under normal storage conditions. If you have any doubts, contact the supplier for advice on shelf-life properties.
Conditions to avoid:	Avoid heat, flames, sunlight.
Incompatible materials:	Strong acids, strong bases, strong oxidising agents. Ammonia may be evolved in the presence of alkalis.
Hazardous decomposition products:	Ammonia. In a fire, oxides of carbon, nitrogen, phosphorus and sulphur may be emitted.

## Section 11: Toxicological information

	Toxicity classifications determined by assessment of the components in the formulated mixture.
(a) Acute toxicity:	Classified as harmful if ingested, in contact with skin or inhaled.
(b) Aspiration hazard:	Not classified.
(c) Respiratory irritation:	Not classified.
(d) Skin corrosion / irritation:	Mild skin irritant.
(e) Serious eye damage / irritation:	Eye irritant.
(f) Respiratory or skin sensitisation:	Not classified.
(g) Germ cell mutagenicity:	Not classified.
(h) Carcinogenicity:	Not classified.
(i) Reproductive toxicity:	Classified as a suspected reproductive or developmental toxicant.
(j) Specific organ toxicity:	Causes damage to human target organs (kidney) or systems.
(k) Narcotic effects:	Not classified.
(l) Other adverse effects:	No information.
Toxicological information for product:	Oral LD <sub>50</sub> (female rat): 1910 mg/kg bw Oral LD <sub>50</sub> (male rat): 2170 mg/kg bw Dermal LD <sub>50</sub> (female rat): 1380 mg/kg bw Dermal LD <sub>50</sub> (male rat): 1400 mg/kg bw Inhalation LC <sub>50</sub> (female rat): 4.31mg/L (4hr) Inhalation LC <sub>50</sub> (male rat): 3.22mg/L (4hr)

## Section 12: Ecological information

	Ecotoxicological classifications determined by assessment of the active ingredient.
(a) Aquatic ecotoxicity:	Toxic to aquatic life with long lasting effects.
(b) Soil ecotoxicity	Very toxic in the soil environment.
(c) Terrestrial vertebrate ecotoxicity:	Harmful to terrestrial vertebrates.
(d) Terrestrial invertebrate ecotoxicity:	Not classified.

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(e) Persistence and degradability:	Glufosinate-ammonium is very soluble in water and is hydrolytically and photolytically stable. This product is considered to not be readily biodegradable.
(f) Potential to be bioaccumulative:	Glufosinate-ammonium does not accumulate in the fatty tissues of fish or other animals.
(g) Mobility in soil.	Product is soluble in water.
Ecotoxicological information for glufosinate-ammonium:	Sheepshead minnow LC <sub>50</sub> (96 hr) 13.1 mg/L <i>Daphnia magna</i> EC <sub>50</sub> (48 hr): 15 mg/L <i>Lemna gibba</i> EC <sub>50</sub> (72 hr) 1.5 mg/L Japanese quail LC <sub>50</sub> : >5000mg/kg (8-day dietary)
<b>Section 13: Disposal considerations</b>	
Product disposal:	Dispose of this product only by using according to the label or through Agrecovery chemical disposal or similar approved service. Do not allow material to contaminate ground water system or surface water.
Container disposal:	Triple rinse container and add residue to spray tank. Recycle clean, empty container through Agrecovery if possible or bury in an approved landfill. Do not use container for any other purpose. Avoid contamination of any water supply or stream with product or empty container.
<b>Section 14: Transport information</b>	
UN number:	Not applicable.
UN proper shipping name:	Not applicable.
UN class:	Not applicable.
Packing group:	III
HAZCHEM:	2Z
Marine pollutant:	No
Special precautions:	-
<b>Section 15: Regulatory information</b>	
HSNO:	Approved substance under the HSNO Act 1996.
Substance approval number:	HSR000152; Soluble concentrate containing 200 g/litre glufosinate-ammonium.
Tolerable exposure limit / environmental exposure limit:	None set.
HSNO controls:	See <a href="http://www.epa.govt.nz">www.epa.govt.nz</a>
Additional controls:	The substance must not be applied onto or into water.
Additional information:	Refer to Worksafe for additional information on controls in the workplace; <a href="http://www.worksafe.govt.nz">www.worksafe.govt.nz</a> .
ACVM:	Registered under the Agricultural Compounds Veterinary Medicines Act 1997.

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Registration number:	P9264
Conditions of registration:	See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a>
<b>Section 16: Other information</b>	
Date of issue:	14/03/2019
Reason for reissue:	Update of SDS format and product information.
Replaces:	SDS issued August 2015.
Information references:	Supplier Safety Data Sheet NZ EPA Approved hazardous substances databases. Workplace Exposure Standards and Biological Exposure Indices
Abbreviations:	ACVM: Agricultural Chemicals and Veterinary Medicines Group Bw: Bodyweight. HSNO: Hazardous substances and New Organisms Act 1996 (HSNO Act) EPA: Environmental Protection Authority of New Zealand CAS Number: Chemical Abstracts Service Number LD50: Lethal Dose 50% (Population) LC50: Lethal Concentration 50% (Population) WES-TWA: Workplace exposure standards – Time-weighted average WES-STEL: Workplace exposure standards – Short-term exposure limit

The data provided in this safety data sheet is based on current knowledge and experience. The purpose of this document is to describe the product in terms of its safety requirements. The above details do not imply any guarantee concerning composition, properties or performance of the product.