



GLOBAL AGRICHEM

SAFETY DATA SHEET

Suite 4, level 1, 38 Whitaker Place, Grafton
Auckland, New Zealand
Tel: +64 09 972 9837
Fax: +64 09 353 1736
info@globalagrlichem.co.nz

Trade name: **GLOBAL GLUFOSINATE**

Date of issue: 01 July 2015
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1. Identification of the Substance and Supplier.

Product name: Global Glufosinate

Recommended Use: Non-selective contact herbicide for use in horticulture, agriculture and non-crop land

Company Details: Global Agrichem Limited
Suite 4, level 1, 38 Whitaker Place
Grafton, Auckland
New Zealand

Web Address: www.globalagrlichem.co.nz

E-mail Address: info@globalagrlichem.co.nz

Telephone number: (09) 972 9837

Emergency Telephone: National Poisons and Hazardous Chemicals Information Centre
Dunedin. Phone: 0800 POISON (0800 764-766)

2. Hazards identification.

Classified by EPA as a hazardous substance according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

HSNO Hazard Classification:

6.1E: May be harmful if swallowed
6.3B: May cause skin irritation
6.4A: May cause eye irritation
6.8B: May cause reproductive/developmental damage from repeated oral exposure
6.9A: May cause organ damage from repeated oral exposure
9.1C: Harmful to aquatic organisms
9.2B: Toxic to the soil environment
9.3C: Harmful to terrestrial vertebrates.

Precautions: KEEP OUT OF REACH OF CHILDREN.
Avoid contact with skin.
When handling, wear protective clothing, including goggles, waterproof gloves and footwear.
Avoid contamination of any water supply with product or empty containers



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3. Composition/Information on Ingredients

Ingredient	CAS Number	Content (% w/v)
Glufosinate-ammonium	77182-82-2	19.1
Alkylpolyglucoside	68515-73-1	9.1
Sodium lauryl ether sulfate	68585-34-2	4.5
Other non hazardous ingredients		To 100%

4. First aid measures

- First Aid:** For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. Begin artificial respiration if the victim is not breathing. Use mouth to nose rather than mouth to mouth. Obtain medical attention.
- Inhalation:** Remove patient to fresh air. If not breathing, give artificial respiration. Seek medical assistance if symptoms persist.
- Ingestion:** Do NOT induce vomiting. Rinse mouth thoroughly with plenty of water. For advice, contact the National Poisons Centre (0800 764 766) or a doctor.
- Skin Contact:** Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas thoroughly with soap and water. If symptoms persist, call a doctor.
- Eye Contact:** Immediately rinse eyes and under the eyelids with plenty of running water for at least 15 minutes. Remove contact lenses if present after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.
- Important symptoms and effects:** Vomiting, diarrhoea, abdominal pain, tremors, hypotension, muscular weakness, unconsciousness, coma, convulsions, respiratory failure, nausea, tachycardia.
- Advice to Doctor:** Endotracheal intubation and gastric lavage should be performed as soon as possible, followed by charcoal and sodium sulfate administration. Respiratory, cardiac and central nervous systems should be monitored with particular regard to ECG, electrolyts balance (especially for potassium) and signs of increased intracranial pressure. In the event of a large exposure, dialysis and or hemoperfusion should be conducted as soon as possible to eliminate the compound from the body. In the event of convulsions, administer phenobarbital or diazepam. There is no specific antidote. Glufosinate-ammonium does not inhibit cholinesterase, thus atropine and 2-PAM are contraindicated. Recovery is normally spontaneous within 48 hours.



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5. Fire-fighting measures

Suitable extinguishing media:

Small fires: Dry chemical, carbon dioxide
Large fires: Foam or water. Move containers from fire area if without risk. Cool containers with water from maximum distance.

Hazards from combustion:

In the event of fire the following may be released: Carbon monoxide (CO), carbon dioxide (CO₂), nitrogen oxides (NO_x), oxides of phosphorus, sulphur oxides.

Special protective equipment for fire fighters:

Wear self-contained breathing apparatus, pressure demand : MSHA/NIOSH approved or equivalent and full protective gear.

Special fire-fighting methods:

Keep upwind. Isolate the hazard area. Avoid inhalation of smoke and fumes. Use water or foam to reduce fumes. Do not touch spilled material. If possible, move containers from area. Extinguish only if flow can be stopped. Use flooding amounts of water as a fog. Cool containers with flooding amounts of water from as far a distance as possible. Avoid breathing vapours. Do not allow run-off from firefighting to enter drains or water courses.

6. Accidental release measures

Spills and Disposal: Small spill: absorb with an inert absorbent material such as granular clay, saw dust or pet litter. Sweep up carefully while avoiding the formation of dust. Place in an approved chemical waste container for disposal. Rinse spill area with small amount of soapy water. Contain and absorb the rinsate with inert absorbents and place into the same disposal container. Area can be washed with water to remove the last trace residue. Do not allow water to contaminate water supplies or sewers.
Large spill: Eliminate all ignition sources. Stop leak if possible without coming into contact with spilled material. Dyke far ahead of liquid spill for later disposal. Prevent entry into waterways, sewers, basements or confined areas. Inform appropriate authorities immediately if contamination occurs.

Personal Protection: Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.



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7. Handling and storage

Precautions for safe handling:

Use only in an area provided with appropriate exhaust ventilation. For personal protection see section 8. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Remove contaminated clothing, then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Conditions for Safe Storage:

Keep out of reach of children.
Store in the original container tightly closed in a locked dry cool dark area away from foodstuffs or feed.
Storage must be in accordance with the current version of NZS 8409 Management of Agrichemicals.

8. Exposure controls/personal protection

Occupational exposure limit values:

No exposure limits (WES, TEL or EEL's) have been specifically assigned to this product.

Engineering controls: No special requirements. Product is used outdoors. Handle in well ventilated areas. Generally, natural ventilation is adequate.

Personal Protective Equipment:

Wear goggles conforming to EN166 (Field of Use 5 or equivalent). Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness 0,40 mm). Wash when contaminated. Dispose of when contaminated inside, when perforated or when external contamination cannot be removed. Wear standard cotton overalls buttoned to the neck and wrist. Wear a washable hat. Overalls should be professionally laundered frequently. Use respiratory protection for organic vapours. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hygiene Measures:

Do not eat, drink or smoke while using the product.
Remove protective clothing and wash hands and face thoroughly before meals and after work.
Wash protective clothing daily after work.



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9. Physical and chemical properties

Appearance: Liquid
Colour: Blue to bluish green
Odour: Weakly pungent
Density: 1.10 g/cm³ at 20°C
Flash Point: Not flammable
pH: 5.0 - 7.5
Water solubility: Soluble

10. Stability and reactivity

Reactivity: Stable under normal operating conditions.

Chemical Stability: No hazardous reactions when stored and handled according to prescribed instructions. Stable under recommended storage conditions.

Conditions to Avoid: Strong oxidising agents, acids, bases and alkali metals.

Hazardous decomposition products:

Thermal decomposition can lead to release of ammonia, oxides of carbon, nitrogen oxides, oxides of phosphorus and sulphur oxides.

Hazardous Polymerisation:

Hazardous Polymerisation does not occur.

11. Toxicological information

HSNO Classification: 6.1E: May be harmful if swallowed (Aspiration hazard)
6.3B: May cause skin irritation
6.4A: May cause eye irritation
6.8B: May cause reproductive/developmental damage from repeated oral exposure
6.9A: May cause organ damage from repeated oral exposure

Acute Toxicity: Data given is for the active ingredient Glufosinate-ammonium.
Acute Oral LD₅₀ rat: > 2000mg/kg (female rats)
Acute Dermal LD₅₀ rat: 1900.2 mg/kg (female and male rats)
Inhalation LC₅₀ (4 h) rat: > 1.16mg/l (maximum attainable concentration)

Irritation: Skin - rabbit: Slight irritation.
Eye - rabbit: Moderate irritation.

Sensitization: Weak contact sensitisation in guinea pigs. Not a sensitiser (HSNO Classification)



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Chronic Effects: Neurotoxicity: Does not inhibit acetylcholinesterase activities. No evidence of delayed neurotoxicity was noted in hens. Neurobehavioral effects (e.g., hypersensitivity, tremors, convulsions) related to stimulation of the central nervous system (CNS) were observed in some studies but only at lethal or near lethal dose levels.

Mutagenicity: Glufosinate-ammonium was not mutagenic in a battery of in vitro and in vivo mutagenicity tests.

Carcinogenicity: No component of Glufosinate-ammonium present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity: May cause reproductive/developmental damage from repeated oral exposure.

Target organ systemic toxicity: May cause organ damage (kidneys) from repeated oral exposure.

12. Ecological Information

HSNO Classification: 9.1C: Harmful to aquatic life with long lasting effects
9.2B: Toxic to the soil environment
9.3C: Harmful to terrestrial vertebrates

Ecotoxicity: Data given is for the active ingredient Glufosinate-ammonium.

Acute Toxicity to Fish: Rainbow trout LC₅₀ (96 hour): 42 mg/l
Carp LC₅₀ (96 hour): 80 mg/l
Bluegill sunfish LC₅₀ (96 hour): 79 mg/l
Fresh water fish & invertebrates LC₅₀ (96 hour): 560-1000 mg/l

Acute Toxicity Aquatic Organisms:
Daphnia LC₅₀ (48 hour): > 100 mg/l
Marine & estuarine organisms LC₅₀ (48 hour): 7.2-125 mg/l

Acute Toxicity Vertebrates (Birds):
Avian acute oral LD₅₀: > 2000 mg/kg
Avian dietary LC₅₀: > 5000 mg/kg

Acute Toxicity to Soil Dwelling Organisms:
Earthworms LC₅₀ (14 days): 283 mg/kg

Acute Toxicity to Terrestrial Invertebrates:
Honey bee contact LD₅₀: > 600 µg/bee

Environmental Fate: Soil phytolytic half life: > 300 days
No bioaccumulation.



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13. Disposal considerations

- Product disposal:** Dispose of this product only by using according to the label or at an approved landfill or other approved facility.
- Container disposal:** Triple rinse the empty container adding the rinsate to the spray tank. Recycle if possible, otherwise crush and bury in an approved local authority facility. Avoid contamination of any water supply with product or empty container. Do not use container for any other purpose.
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14. Transport regulations

Dangerous Goods: Not classified as dangerous goods for transport (9.1C)

15. Regulatory information

HSNO Approval Number: HSR007813
HSNO Controls: Refer to www.epa.govt.nz .
ACVM Approval: Registered pursuant to the ACVM Act 1997 No: P9084
ACVM Registration conditions: See: www.foodsafety.govt.nz

16. Other information

- Abbreviations:** ACVM: Agricultural Chemicals and Veterinary Medicines Group.
CAS Number: Chemical Abstracts Service Number
EEL: Environmental Exposure Limit
EPA: Environmental Protection Authority of New Zealand
HSNO: Hazardous Substances and New Organisms ACT 1966
LD₅₀: Lethal Dose 50% (Population)
LC₅₀: Lethal Concentration 50% (Population)
TEL: Tolerable Exposure Limit
WES: Workplace Exposure Standard
- General:** Global Glufosinate is a herbicide for use in agriculture and horticulture. Use only as directed on the label
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This SDS supersedes all previous issues. It summarises our best knowledge of the health and safety hazard information of the product. All users 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. Since the actual use of this product is beyond the control of Global Agrichem Ltd, we make no warranty, expressed or implied, concerning the use of this product. It is the responsibility of users to ascertain that the product is suitable for intended applications.
