

LIBERTY 200SL

Section 1: Identification

Product name:	Liberty 200SL
Other names:	200 g/litre glufosinate-ammonium as a soluble concentrate.
Recommended use:	A non-selective contact herbicide for the control of a wide ranges of broadleaf and grass weeds in orchard, vineyards and non-cropland areas.
Manufacturer/Importer details:	AgStar New Zealand Pty Ltd 4 Putakitaki Street, Lincoln, Christchurch 7608
Distributor:	Farmlands Co-operative Society Limited 535 Wairakei Road, Burnside, Christchurch 8053 TEL 0800 200 600
24 hour emergency contact:	0800 CHEMCALL (0800 243622)
National Poisons Centre:	0800 POISON (0800 764766)

Section 2: Hazard identification

HSNO Approval:	Product is classified as hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020 of the HSNO Act, 1996.
Hazardous classification:	HSR100830 Skin irritation Category 2, Eye irritation Category 2, Reproductive toxicity Category 2, Specific target organ toxicity (repeated exposure) Category 1, Hazardous to soil organisms, Hazardous to terrestrial vertebrates, Hazardous to the aquatic environment chronic Category 3.
Pictograms:	
Signal word:	DANGER
Hazard statements:	H315 Cause skin irritation. H319 Cause serious eye irritation. H361 Suspected of damaging fertility or the unborn child. H372 Cause damage to organs through prolonged or repeated exposure. H412 Harmful to aquatic life with long-lasting effects. Toxic to the soil environment. 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 are understood P260 Do not breathe dust/fume/gas/mist/vapors/spray P264 Wash hands, arms and face thoroughly after handling. P273 Avoid release to the environment.

Response statements:	P280 Wear protective gloves, protective clothing, eye and face protection. P101 If medical advice is needed, have product container or label at hand. P308+P313 IF exposed or concerned: Get medical advice/attention. P314 Get medical advice/attention if you feel unwell. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/attention. P391 Collect spillage
Storage statements:	-
Disposal statement:	P501 Dispose of product and containers in accordance with local Regulations. See Section 13 for details.
Additional Label Requirements:	Do not apply into or onto water. Take all reasonable steps to ensure that the substance does not cause any significant adverse effects to the environment beyond the application area.

Section 3: Composition/information on ingredients

Chemical identity of ingredients with health or environmental hazards:

<i>Ingredient</i>	<i>CAS No.</i>	<i>Proportion</i>
Glufosinate-ammonium	77182-82-2	192 - 208 g/L
Other ingredients	Proprietary	To 100

Section 4: First-aid measures

First aid measures:	If medical advice is needed, have product container or label at hand. For advice contact National Poisons Centre 0800 POISON [0800 764 766] or a doctor.
Ingestion:	Do NOT induce vomiting. Rinse mouth. Call a POISON CENTRE or doctor for advice 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 person feels unwell. If person is not breathing dial 111 for an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
Skin contact:	Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs get medical attention.
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, get medical attention.
First aid facilities:	Provide eye baths and safety showers close to areas where product contact or splashing may occur.
Advice to doctor:	Treat symptomatically.

Section 5: Fire-fighting measures

Flammability:	Non-flammable.
Appropriate extinguishing media:	Water spray, dry powder, carbon dioxide.

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Hazardous decomposition products:	In a fire, the following may be released:, Carbon monoxide (CO), Carbon dioxide (CO ₂), Nitrogen oxides (NO _x), Oxides of phosphorus
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:	3Z

Section 6: Accidental release measures

Personal precautions:	Wear protective clothing (overalls buttoned at wrist and neck), chemical resistant gloves and boots and chemical goggles or face shield.
Environmental precautions:	Contain and collect spillage. Prevent chemical contaminating drains or watercourses by activating emergency shut-off valves or using bunding. Inform appropriate authorities immediately if spill enters waterways or sewers. Prevent chemical contaminating soil.
Procedure for clean up:	Collect spill and absorb residues with inert absorbent material such as sand, soil or clay granules. Collect into an appropriate, labelled, waste container and dispose of at an approved facility. Prevent runoff entering waterways or contaminating the soil.

Section 7: Handling and storage

Safe handling:	Read label before use. Use only outdoors or in a well-ventilated area. Wear protective clothing; chemical goggles or a face shield, impervious gloves, overalls and boots when handling.. Wash splashes from skin immediately. Remove protective clothing and wash hands and face thoroughly before meals and after work. Wash contaminated clothing before re-use.
Safe storage:	Store in original container tightly closed and in a locked dry, cool, well-ventilated area, away from foodstuffs, fertilizers and seeds. Store in accordance with the current version of NZS 8409 Management of Agrichemicals. Stores containing more than 1000 litres require secondary containment, signage and an emergency response plan.

Section 8: Exposure controls/personal protection

Occupational exposure limits:	<table><tr><th><i>Ingredient</i></th><th><i>CAS No.</i></th><th><i>WES-TWA</i></th><th><i>WES-STEL</i></th></tr><tr><td>Glufosinate-ammonium</td><td>77182-82-0</td><td>-</td><td>-</td></tr></table>	<i>Ingredient</i>	<i>CAS No.</i>	<i>WES-TWA</i>	<i>WES-STEL</i>	Glufosinate-ammonium	77182-82-0	-	-
<i>Ingredient</i>	<i>CAS No.</i>	<i>WES-TWA</i>	<i>WES-STEL</i>						
Glufosinate-ammonium	77182-82-0	-	-						
Biological limit value:	None set as of WorkSafe's 14 th edition of WES and BEI values, published November 2023.								
Engineering controls:	Use only in well-ventilated areas. If necessary, use local exhaust ventilation to keep airborne concentration below the exposure limits.								

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Respiratory protection:	Wear half or full mask fitted with vapour filter when mixing or applying spray.
Hand protection:	Elbow length, chemical resistant gloves (e.g. PVC, rubber, neoprene or nitrile).
Eye protection:	Goggles with side pieces or a 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.
Personal Protection:	Further information on specific types of personal protective gear and related standards is available in Section 16.
Section 9: Physical and chemical properties	
(a) Appearance:	Clear blue liquid
(b) Odour:	Characteristic.
(c) Odour threshold:	Not available.
(d) pH:	6.0 – 8.0 (1% aqueous solution).
(e) Melting point/freezing point:	Not available.
(f) Initial boiling point and boiling range:	>100°C.
(g) Flash point:	Not applicable
(h) Flammability (solid, gas):	Not applicable.
(i) Upper/lower flammability or explosive limits:	Not available.
(j) Vapour pressure:	No data available.
(k) Vapour density:	No data available.
(l) Relative density:	No data available
(m) Solubility:	Soluble in water.
(n) Partition coefficient: n-octanol/water:	Not available.
(o) Auto-ignition temperature:	Not available.
(p) Decomposition temperature:	Not available.
(q) Kinematic viscosity:	Not available.
(r) Particle characteristics	Not applicable.
Section 10: Stability and reactivity	
Stability of the substance:	Product is unlikely to react or decompose under normal conditions of storage and use.
Conditions to avoid:	Keep out of direct sunlight and protect from frost.
Incompatible materials:	Strong acids, alkalis or oxidising materials.

Hazardous decomposition products:

Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x), Oxides of phosphorus

Section 11: Toxicological information

	Toxicity classifications determined by assessment of the components in the formulated mixture.
a) Acute toxicity:	Not classified
b) Aspiration hazard:	Not classified.
c) Respiratory irritation:	Not classified.
d) Skin corrosion / irritation:	Cause skin irritation
e) Serious eye damage / irritation:	Cause serious eye irritation.
f) Respiratory or skin sensitisation:	Not classified
g) Germ cell mutagenicity:	Not classified.
h) Carcinogenicity:	Not classified.
i) Reproductive toxicity:	Suspected of damaging fertility or the unborn child
j) Specific organ toxicity:	Causes target organ damage from repeated oral exposure at high doses.
k) Narcotic effects:	Not classified.
l) Other adverse effects:	No information.
m) Toxicological information for Glufosinate-ammonium:	Acute oral LD₅₀ (rat): 420 mg/kg bodyweight Acute dermal LD₅₀ (rat): > 2000 mg/kg bodyweight Acute inhalation LC₅₀ 4 hr (rat): 1.26 mg/l

Section 12: Ecological information

	Ecotoxicological classifications determined by assessment of the active ingredient.
(a) Aquatic ecotoxicity:	Harmful to aquatic organisms with long lasting effects.
(b) Soil ecotoxicity	Toxic to the soil environment
(c) Terrestrial vertebrate ecotoxicity:	Harmful to terrestrial vertebrates.
(d) Terrestrial invertebrate ecotoxicity:	Not classified.
(e) Persistence and degradability:	DT ₅₀ (typical) 7.4 days
(f) Potential to be bioaccumulative:	No data available
(g) Mobility in soil.	No data available
(h) Ecotoxicological information for active ingredient (Glufosinate-	LC50 (96 hr) for rainbow trout is 710 mg/L

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ammonium):	LC50 (96 hr) for bluegill sunfish is >1000 mg/L EC50 (48hr) for daphnia is 560 mg/L LD50 for Japanese quail is >5000 mg/L	
Section 13: Disposal considerations		
Product disposal:	Dispose of this product only by using according to the label or through an agricultural chemical disposal or hazardous substance service. Do not allow material to contaminate ground water system or surface water.	
Container disposal:	Triple rinse container and add rinsate to the spray tank. Take to an agrichemical recovery collection site.	
Section 14: Transport information		
UN number:	3082	
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (GLUFOSINATE-AMMONIUM 20%)	
UN class:	9	
Packing group:	III	
HAZCHEM:	3Z	
Marine pollutant:	Yes	
Special precautions:	- This product is classified as a Dangerous Good Class 9. Consult the Land Transport Rule: Dangerous Goods 2005 and NZS 5433:2012 Transport of Dangerous Goods on Land for more information.	
Section 15: Regulatory information		
HSNO:	Approved substance under the HSNO Act 1996.	
Substance approval number:	HSR100830	
Tolerable exposure limit / environmental exposure limit:	No limits set.	
HSNO controls:	See www.epa.govt.nz	
	Qualifications	Yes
	Tracking:	No
	Safety Data Sheet:	Any quantity
	Restricted to workplace only:	No
	Quantity that must be secured when unattended:	-
	Fire extinguishers	-
	Quantity for secondary containment and emergency response plan:	1000 L
	Quantity for signage:	1000 L
	Quantity for Location certificate	-
	Records of use (3 kg or more applied to area within 24 hours)	Yes
	Quantity that requires	-

	management in accordance with HSW HS Regulations Hazardous Substances (Packaging) Notice 2017; Clause 9	UN Pack Group III
Additional controls:	-	
Additional information:	Take all reasonable steps to ensure that the substance does not cause any significant adverse effects to the environment beyond the application area. Refer to WorkSafe for additional information on controls in the workplace; www.worksafe.govt.nz .	
ACVM:	Registered under the Agricultural Compounds Veterinary Medicines Act 1997.	
Registration number:	P09973	
Conditions of registration:	See www.foodsafety.govt.nz	
Section 16: Other information		
Date of issue:	19/05/2025	
Reason for reissue:	Updated label	
Replaces:	Not applicable	
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	
Personal Protection Standards:	The following Standards provide general advice regarding safety clothing and equipment: Respiratory equipment: AS/NZS 1715 , Protective Gloves: AS 2161 , Occupational Protective Clothing: AS/NZS 4501 , Industrial Eye Protection: AS1336 and AS/NZS 1337 , Occupational Protective Footwear: AS/NZS2210	

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.