



SAFETY DATA SHEET

EnviroMax Glyphosate 700SG Herbicide

Section 1: Identification	
Product identifier:	EnviroMax Glyphosate 700SG Herbicide.
Other means of identification:	Glyphosate water dispersible granule; sulfonylurea herbicide
Recommended use of the chemical and restrictions on use	For the control of various weeds of turf and agricultural situations as specified on the product label
Details of manufacturer	EnviroMax Technologies Pty Ltd Level 3, 549 Queen St., Brisbane, Queensland 4000, Australia
Emergency phone number	61- (0) 4099 26561

Section 2: Hazard Identification	
Hazard Classification:	NOT a hazardous substance
Signal Word:	CAUTION
Hazard statements:	Nil
Precautionary statements:	
Prevention:	Do not swallow. Avoid contact with spray. Wash hands, arms and face after use with soap and water.
Response:	If swallowed: Move affected person to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Storage:	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal:	Dispose of contents/container in accordance with container label instructions as per local State and Council requirements.

Symbols:



Exclamation mark

Section 3: Composition / Information On Ingredients		
Chemical Identity of Ingredients		
Common Name	CAS Number	Concentration
Glyphosate	1071-83-6	70%
Other non-hazardous ingredients	-	30%

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Section 4: First Aid Measures

General Advice:

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor (at once). Have this MSDS with you when you call.

Description of necessary first aid measures

Inhalation:

Remove from exposure area to fresh air immediately, seek medical attention if symptoms develop or persist.

Skin Contact:

Remove contaminated clothing and shoes immediately and wash with plenty of water and soap. If symptoms persist seek medical attention.

Eye Contact:

If in eyes, hold eyelids apart and flush the eye continuously with large amounts of water for at least 15 minutes. Seek medical attention if symptoms persist.

Ingestion:

If swallowed rinse mouth with water. Never give anything by mouth to an unconscious person. Seek medical attention.

Symptoms caused by exposure

Systemic toxicity is unlikely unless large amounts have been ingested:

- irritation in the nose and throat
- increased saliva, burns in the mouth and throat, nausea, vomiting, and diarrhoea..

Medical attention and special treatment

Treat symptomatically. There is no specific antidote available.

Section 5: Fire Fighting Measures

Suitable extinguishing equipment:

Non-combustible. Use extinguishing media appropriate to the source of the fire, eg water fog or spray, foam, carbon dioxide (CO₂) or dry chemical. Do not use extinguishes which may spread fire (eg solid water stream).

Specific hazards arising from the chemical

Oxides of carbon, nitrogen and phosphorous in a major fire only.

Special protective equipment and precautions for fire fighters

Wear self-contained breathing apparatus in confined areas.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Avoid contact with eyes and skin. Wear elbow-length PVC gloves and goggles. If product in eyes, wash it out immediately with water

Environmental precautions

In the event of a spill, do not wash down drains. Prevent spillage from entering drains or water courses.

Methods and materials for containment and cleaning up

Contain product spill as appropriate. Contain spill and do not wash down to drains. Cover drains if possible. Collect spilled material by sweeping or vacuuming and place in sealable open-top type containers for disposal.

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Section 7: Handling And Storage	
Precautions for safe handling	Read container label before use. Use only in accordance with the instructions provided on the container label, including the Precaution and Protection sections and the Safety Directions.
Conditions for safe storage	Store in the closed, original container in a dry, well ventilated area, as cool as possible.
Section 8: Exposure Controls / Personal Protection	
Exposure control measures	No exposure standards have been set for this product or its ingredients
Biological monitoring	No biological limit allocated for the product or any of its ingredients. No biological monitoring is required.
Control Banding	No control banding level allocated.
Engineering controls	Use only in a well ventilated area.
Individual protection measures	Avoid contact with eyes and skin. Wear elbow-length PVC gloves and 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.
Section 9: Physical and Chemical Properties	
Appearance:	Beige granules
Odour:	Negligible
pH:	N/A
Vapour pressure:	0.0131 mPa @ 25°C (Glyphosate – not volatile)
Octanol-Water Partition Coefficient (K_{ow}):	-3.7 to -5.32 (Glyphosate)
Henry's constant:	<1.44x10 ⁻¹² atm-m ³ /mole (Glyphosate)
Bulk Density	0.6 g/mL
Solubility (water)	10500 mg/L (Glyphosate)
Ignition temperature:	No data available. Glyphosate is not highly flammable
Section 10: Stability And Reactivity	
Reactivity:	
Chemical stability:	Stable under normal storage conditions and use.
Possibility of hazardous reactions:	None when stored and used as directed. Never store or mix in galvanised steel or unlined steel containers as hydrogen gas may be produced which can form a highly combustible or explosive gas mixture. Glyphosate can react with caustic (basic) materials to liberate heat. Hazardous polymerisation is not possible.
Conditions to avoid:	None known. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.
Incompatible materials:	Do NOT store or mix in galvanised steel or unlined steel containers. Avoid strong acids, strong bases and strong oxidising agents
Hazardous decomposition products	None known. Store and use as directed.
Section 11: Toxicological Information	
Acute Oral (LD₅₀):	1524 mg/kg (rat, calculated from ingredients) Category 4
Acute Dermal (LD₅₀):	>2000 mg/kg (rabbit, calculated from ingredients) Category 4
Acute Inhalation (LC₅₀):	No data for the product. Glyphosate is low in toxicity by inhalation as a spray mist. The 4-hour LC50 is >5.0 mg/L in rats
Skin irritation:	Irritating to skin (rabbit)
Eye irritation:	Damaging to eyes (rabbit)
Skin sensitisation:	Not a sensitizer
Genotoxicity (mutagenicity)	No data for the product. Glyphosate was not genotoxic in a range of in vitro and in vivo tests, except in a test for SCE in human lymphocytes

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	at very high concentrations
Carcinogenicity:	No data for the product. Glyphosate is not considered to be carcinogenic (24 month rat study).
Reproductive toxicity:	No data for the product. Two dietary multigenerational in rats with technical glyphosate found effects on parental and pup body weight at 30,000 mg/kg diet (equivalent to 1500 mg/kg b.w. per day) with a NOAEL of 10,000 mg/kg diet (equivalent to 500 mg/kg b.w. per day).
Specific Target Organ Toxicity – single exposure:	No data for the product. For Glyphosate no primary target organ for toxicity was identified from acute dose studies in mice, rats, rabbits and guinea pigs.
Specific Target Organ Toxicity – repeat exposure:	No data for the product. For Glyphosate no primary target organ for toxicity was identified from repeat dose studies in mice, rats and dogs.
Aspiration hazard:	No data for the product or Glyphosate.

Inhalation

Glyphosate has sufficiently low vapour pressure so that Glyphosate does not readily volatilize. Use as per label instructions is unlikely to result in significant inhalation exposure. Breathing in very high concentrations of spray mist through use of this product may cause respiratory irritation.

Skin Contact

The product is considered a skin irritant.

Eye Contact

Product may irritate the eyes.

Ingestion

Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury.

Exposure levels and health effects

The acceptable daily intake (ADI) for Glyphosate is 0.03 mg/kg body weight per day.

Section 12: Ecological Information

ENVIRONMENTAL TOXICITY

Ecotoxicity:	Information on Glyphosate, the primary environmental toxicant.
Fish:	LC50 (96 h) 38 mg/L, <i>Oncorhynchus mykiss</i> NOEC (21 d) 25 mg/L, <i>Oncorhynchus mykiss</i>
Aquatic invertebrates:	EC50 (48 h) 40 mg/L, <i>Daphnia magna</i> NOEC (21 d) 30 mg/L, <i>Daphnia magna</i> EC50 (96 h) 40.0 mg/L Mysid shrimp (<i>Americamysis bahia</i>)
Aquatic plants:	EC50 (7 day) 12 mg/L (biomass), <i>Lemna gibba</i> EC50 (72 h) 4.4 mg/L (growth), <i>Pseudokirchneriella subcapitata</i>
Birds:	Acute oral LD50 >2000 mg/kg Short-term dietary LC50 >4640 mg/kg in feed
Terrestrial insects:	Honeybees - Acute 48 hour LD50 -100 µg bee ⁻¹
Persistence and degradability	Half-life of Glyphosate is 12 days in aerobic soils (non- persistent).

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	No evidence of volatility
	Glyphosate is stable to hydrolysis at pH 7 and is not pH sensitive.
Bioaccumulative potential	Glyphosate bioaccumulation potential is considered to be low
Mobility in soil	Slightly mobile Koc = 1435 (Linear) Kd = 222 (Linear) Kf = 453 (Freundlich)

Section 13: Disposal Considerations

Product Disposal:

Product Disposal On site disposal of the granule is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals.

Container Disposal

Do not use this container for any other purpose. Triple or preferably pressure rinse empty containers before disposal or recycling. Add rinsings to spray tank. Contact licensed industrial waste collector for proper disposal.

Section 14: Transport Information

UN Number:	3077 (Glyphosate)
UN Proper Shipping Name:	For bulk shipments as Class 9, use UN 3077, HazChem code 2Z.
Transport hazard class	9 (bulk shipments)
Packing Group:	Considered non dangerous for road and rail transport (in packaging) by the Australian Code for the Transport of Dangerous Goods by Road and Rail.
Environmental hazards for Transport Purposes	Marine Pollutant
Special precautions for user:	None
Hazchem	2Z (bulk shipments)

ADG Code:

NOT considered dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Section 15: Regulatory Information

POISON Schedule: 5 – CAUTION

Section 16: Other Information

References:

1. IUPAC Agrochemical Information <http://sitem.herts.ac.uk/aeru/iupac/373.htm>
2. NPIC Glyphosate Technical Fact Sheet <http://npic.orst.edu/factsheets/glyphotech.pdf>
3. IPCS Inchem WHO/FAO data sheets on pesticides No. 91
http://www.inchem.org/documents/pds/pds/pest91_e.htm#2.0

Acronyms

LD50 or LC50 – Estimated lethal dose / concentration to kill 50% of the population/sample.

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END OF MSDS