

Infosafe No™ NUOHN	Issue Date : February 2012	ISSUED by NUFARM
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 Product Name **Roundup**

Classified as hazardous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	Roundup
Product Code	0539
Product Type	Group M Herbicide
Company Name	NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
Address	103-105 Pipe Road Laverton North Victoria 3026 Australia
Emergency Tel.	1800 033 498 (24hr Australia)
Telephone/Fax Number	Tel: +61 3 9282-1000 Fax: +61 3 9282-1001
Recommended Use	Water soluble herbicide for non selective control of many annual and perennial weeds in certain situations as per the label.
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.

2. HAZARDS IDENTIFICATION

Hazard Classification	Classified as hazardous HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. Hazard classification according to the criteria of NOHSC. Dangerous goods classification according to the Australia Dangerous Goods Code.
Risk Phrase(s)	Classified as hazardous R41 Risk of serious damage to eyes.
Safety Phrase(s)	S13 Keep away from food, drink and animal feeding stuffs. S2 Keep out of reach of children. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 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.
Other Information	Poisons Schedule S5

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization	Liquid		
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Glyphosate (present as the isopropylamine salt)	1071-83-6	360 g/L
	Surfactant		10-30 %
	Water		Balance

4. FIRST AID MEASURES

Inhalation	Remove affected person to fresh air until recovered.
Ingestion	If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust). Make every effort to prevent vomit from entering the lungs by careful placement of the patient. Do not give anything by mouth to a semi-conscious or unconscious person. Give a glass of water.
Skin	Wash affected areas thoroughly with soap and water. If irritation persists, seek medical advice.
Eye	If in eyes, hold eyelids open and wash with copious amounts of water for at

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First Aid Facilities least 15 minutes.
Seek medical advice.
If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.

Advice to Doctor Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.
Water, foam, carbon dioxide or dry chemical.

Hazards from Combustion Products Keep upwind.
This product, or spray solutions of this product, react with galvanised steel or unlined steel (except stainless steel) containers and tanks, to produce hydrogen gas which may form a highly flammable or explosive gas mixture.
If involved in a major fire, could evolve oxides of nitrogen or phosphorus.

Special Protective Equipment for fire fighters Breathable air apparatus may have to be worn if material is involved in fires especially in confined spaces.

Other Information STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite).
Collect in sealed open top containers for disposal.
Final clean-up with degreasing agent or detergent is advised.

Environmental Precautions Prevent from entering drains, waterways or sewers.

7. HANDLING AND STORAGE

Precautions for Safe Handling For personal protective equipment (PPE) and hygiene advice, refer Section 8.

Conditions for Safe Storage Store in the closed, original container in a dry, well ventilated area out of direct sunlight.
Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.

Other Information Always read the label and any attached leaflet before use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards No exposure standard has been established for this product.

Engineering Controls No special ventilation required.

Personal Protective Equipment When preparing product for use wear elbow-length PVC gloves and face shield or goggles.
When using controlled droplet applicator, wear protective waterproof clothing and impervious footwear.

Hygiene Measures After each day's use, wash contaminated clothing and safety equipment.
After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

Requirements Concerning Special Training Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Liquid

Appearance Amber coloured liquid

Odour Faint amine odour

Boiling Point >100°C (water only)

Solubility in Water Soluble in water.

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Specific Gravity	1.17
pH Value	4.5 - 5.0 (1% solution)
Flash Point	None
Flammability	Non combustible material.

10. STABILITY AND REACTIVITY

Incompatible Materials	Corrosive to mild steel, galvanised steel and zinc. Non corrosive to stainless steel, polyethylene and plastics. Do not mix, store or apply the product or spray solutions of the product in galvanised steel or unlined steel (except stainless steel) containers or spray tanks.
Hazardous Reactions	Avoid contact of the concentrate with strong alkalis and alkaline materials such as lime. Such contact may release isopropylamine vapour with a strong fish like odour, which is an irritant to eyes. Isopropylamine is moderately toxic, LD50 (oral, rat) is 820 mg/kg and a TLV of 5 ppm (TWA) has been set.
Hazardous Polymerization	Hazardous polymerisation is not possible.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	No harmful effects are expected if the precautions on the label and this MSDS are followed.
Inhalation	When applying the product as a spray avoid breathing in spray mist. May cause irritation to mucous membranes and respiratory tract.
Ingestion	The concentrate is of low toxicity if swallowed. Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury. Possible symptoms of exposure include: nausea, vomiting and gastrointestinal discomfort and diarrhoea. Ingestion of a large quantity of the undiluted product may result in hypotension and pulmonary oedema.
Skin	The concentrated product may cause slight irritation on contact. Prolonged contact is likely to result in irritation.
Eye	The concentrate may cause severe irritation of the eyes unless washed off immediately. Prolonged contact with the concentrate may cause damage to the eye.
Chronic Effects	No information available, no chronic effects expected.
Acute Toxicity - Oral	LD50 (rat) >5,000 mg/kg for a similar formulation
Acute Toxicity - Dermal	LD50 (rabbit) >5,000 mg/kg for a similar formulation
Acute Toxicity - Inhalation	LC50 (rat) (4hr) >1.3 mg/l LC50 concentration not reached.
Eye Irritation	Roundup is a severe eye irritant. Risk of serious damage to eyes.
Skin Irritation	Slight irritant.
Other Information	The Australian Acceptable Daily Intake (ADI) for glyphosate for a human is 0.3 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 30 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing Office of Chemical Safety and Environmental Health, 'ADI List', June 2011).

12. ECOLOGICAL INFORMATION

Persistence / Degradability	Adsorption studies indicate that glyphosate has very low mobility. Average field half life of glyphosate is 47 days.
Known Harmful Effects on the Environment	Harmful to fish and other aquatic organisms (mainly due to the surfactant).

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Other Precautions	Do not spray in high winds. Do not contaminate dams, waterways or sewers with this product.
Environ. Protection	Glyphosate is a non-selective contact herbicide. Spray drift can cause damage, read the label for more information.
Acute Toxicity - Fish	LC50 (96hr) for rainbow trout is 8.2 - 26 mg/l. Not toxic to fish. The above data is for the formulated product.
Acute Toxicity - Daphnia	EC50 (48hr) for daphnia is 11 mg/l for technical glyphosate.
Acute Toxicity - Algae	EC50 (72hr) for algae 4.4 mg/l for technical glyphosate.
Acute Toxicity - Other Organisms	The following data is for the active ingredient, glyphosate. Birds: Not toxic to birds. LD50 for mallard ducks and bobwhite quail (diet) is 2000 mg/kg Bees: Not toxic to bees. LD50 >100 µg/bee.

13. DISPOSAL CONSIDERATIONS

Product Disposal	On site disposal of the concentrated product 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 (ChemClear®).
Container Disposal	Do not use this container for any other purpose. Triple or preferably pressure rinse inner bladder or containers before disposal. Add rinsings to the spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and deliver empty packaging for appropriate disposal at an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMUSTER symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program. Returnable containers: empty contents fully into application equipment. Replace cap, close all valves and return to the point of supply for refill or storage. DO NOT burn empty containers or product.

14. TRANSPORT INFORMATION

Transport Information	It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.
Storage and Transport	Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

15. REGULATORY INFORMATION

Poisons Schedule	S5
Packaging & Labelling	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Hazard Category	Irritant
Other Information	This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 31393.

16. OTHER INFORMATION

Date of preparation or last revision of MSDS	Revised 13/02/2012 This SDS replaces document dated April 2009.
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Material Safety Data Sheet

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Contact	Normal Hours: Mrs Kathleen Marsh	Phone: +61 3 9282 1000
Person/Point	After Hours: Shift Supervisor	Phone: 1800 033 498
Revisions	The MSDS was reviewed. Changes made to sections:	
Highlighted	9 - pH value added;	
	13 - container disposal;	
	15 - Regulatory information; and section 16.	
	...End Of MSDS...	

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