



Material Safety Data Sheet

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Infosafe No. NU0CP Issue Date : November 2004 ISSUED by NUFARM

Product Name : **CREDIT Broadhectare Herbicide**

Not classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name CREDIT Broadhectare Herbicide
Product Code 0556
Product Use For the control of annual and perennial and aquatic weeds in many situations, and for the control of annual and perennial weeds prior to sowing winter and summer crops, to control sorghum re-growth, for ratoon control in sugarcane and to assist in pasture renovation and management as per the Directions for Use Table on the label.
Company Name NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
Address 103-105 Pipe Road Laverton North
Victoria 3026 Australia
Emergency Tel. 24hr 1800 033 498
Telephone/Telex Number Tel: (03) 9282-1000 Fax: (03) 9282-1001
Product Type Group M Herbicide
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. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Liquid

Ingredients	Name	CAS	Proportion
	Glyphosate present as the isopropylamine and mono-ammonium salts	1071-83-6	540 g/L
	Amine salt of alkyl ethoxyphosphate blend		0-10 %
	Water		Balance

3. HAZARDS IDENTIFICATION

Other Information Poisons Schedule S5

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 least 15 minutes.
Seek medical advice.

First Aid Facilities If poisoning occurs, contact a doctor or Poisons Information Centre on 13 11 26 (Australia).

Advice to Doctor Treat symptomatically.



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5. FIRE FIGHTING MEASURES

Extinguishing Media If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.

Specific Hazards

Hazardous Non-combustible.

Combustion Products 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.

Emergency Action in case of Fire If exposed to fire, keep container cool by spraying with water.

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

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite).
Collect spilled material and waste in sealable open-top type containers for disposal.

Clean-up Methods - Large Spillages Place damaged containers in recovery bins (if available) and return to manufacturer.

7. HANDLING AND STORAGE

Handling For personal protective equipment (PPE) and hygiene advice, refer Section 8.
Do NOT contaminate dams, rivers or streams, or any other water bodies with chemical or used containers.

Storage Store in the closed, original container in a dry, cool well ventilated area out of direct sunlight.

Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Limits No exposure standard has been established for this product.

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.

Eng. Controls No special ventilation required.

Hygiene Measures After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

After each day's use, wash contaminated clothing and safety equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Clear, light green liquid

Odour Faint amine odour

Melting Point -10°C

Solubility in Water Soluble in water.

Boiling Point >100°C

Specific Gravity 1.235

(H₂O=1)

pH Value 4.4 - 4.9

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Vapour Pressure	N/A
Volatile Component	~40% (water only)
Flash Point	None
Flammability	Non combustible material.

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Hazardous Polymerization	Hazardous polymerisation is not possible.
Materials to Avoid	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 Reaction	Avoid contact of the concentrate with strong alkalis and alkaline materials such as lime. Such contact may release isopropylamine and ammonia vapour with a fish like odour, which can be 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. TLV (TWA) for ammonia is 25ppm and (STEL) is 35ppm.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	No harmful effects are expected if the precautions on the label and this MSDS are followed.
Inhalation	The components of the product are of low volatility and no adverse effects are expected from handling the concentrate. When applying the product as a spray avoid breathing in spray mists. 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. However, swallowing of large amounts may cause injury.
Skin	The concentrated product may cause slight irritation on contact.
Eye	The concentrate may cause irritation of the eyes. Prolonged contact with the concentrate may cause damage to the eye.
Chronic Effects	No information available, no chronic effects expected.
Reproductive Toxicity	Data indicates no reproductive effects. Data indicates no teratogenic effects.
Carcinogenicity	Data indicates no carcinogenic effects.
Acute Toxicity - Oral	LD50 (rat) 4050 mg/kg for glyphosate as the isopropylamine salt LD50 (rat) 4613 mg/kg for glyphosate as the ammonium salt
Acute Toxicity - Dermal	LD50 (rabbit) >5000 mg/kg for glyphosate as the isopropylamine salt LD50 (rabbit) >5000 mg/kg for glyphosate as the ammonium salt
Acute Toxicity - Inhalation	LC50 (rat) (4hr) >1.3 mg/l for glyphosate as the isopropylamine salt
Eye Irritation	Mild eye irritant.
Skin Irritation	Not a skin irritant.



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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, 'ADI List', TGA, June 2004).

12. ECOLOGICAL INFORMATION

Known Harmful Effects on the Environment Glyphosate products do not appear to pose any threat to birds.

Other Precautions Do not spray in high winds.

Do not contaminate dams, waterways or sewers with this product.

Environ. Protection Spray drift can cause damage, read the label for more information.

Glyphosate is a non-selective contact herbicide.

This product is permitted for the control of certain weed species in waterways. Carefully read the precautions under 'Aquatic Weed Control' in the directions for use table on the label.

Persistence / Degradability Adsorption studies indicate that glyphosate has very low mobility.

Average field half life of glyphosate is 47 days.

Acute Toxicity - Fish The following is data for a similar product.

LC50 (96 hr) for trout is >1000 mg/l.

Acute Toxicity - Daphnia EC50 (48hr) is 600 mg/l.

Acute Toxicity - Other Organisms The following data is for the active ingredient, glyphosate.

Birds: Not toxic to birds. LD50 for bobwhite quail is >3850 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 (ChemCollect).

Container Disposal Do not use this container for any other purpose.

Triple rinse containers, add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local 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.

Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

It is good practice to separate this product from food, food related materials, animal feedstuffs, seed or fertilisers during transport.

U.N. Number None Allocated

Proper Shipping Name None Allocated

DG Class None Allocated

Hazchem Code None Allocated

Packing Group None Allocated



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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 & CAUTION

Labelling KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

AICS (Australia) All of the components in this product are listed on the Australian Inventory of Chemical Substances.

16. OTHER INFORMATION

Contact Person/Point Normal Hours: Mr Volker Maier Phone: (03) 9282 1000
After Hours: Shift Supervisor Phone: 1800 033 498

Revisions Highlighted The MSDS was reviewed. Minor changes were made to the information. The MSDS is now issued in a 16 header format.
...End Of MSDS...