

Introducing a Surfactant Game Changer..

Nemo, the ideal
surfactant addition
with glyphosate....

Believe the hype!



N E M O

Surfactant

Surfactant for Use in Aquatic Situations & Non-Crop Areas,
Commercial & Industrial Areas, Rights-of-Way, Fallow & Firebreaks



NEMO

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APVMA No.: 67157

Technical Brief

Active Ingredient:	315 g/L Cocamidopropyl Betaine
Chemical Family:	Zwitterionic Surfactant
Mode of Action Group:	n/a
Formulation:	Soluble Concentrate (SL)
MoA / Behaviour in pH:	Nemo (Cocamidopropyl betaine) is an amphoteric surfactant. Amphoteric surfactants have the ability to change in charge from cationic (+) to anionic (-) depending on the pH (low or high) of the solution they are in. At the pH levels associated with glyphosate, which is below 7, Nemo (cocamidopropyl betaine) is cationic (+) . Benefits regarding cationic (+) surfactants: <ul style="list-style-type: none"> • reduced surface tension of the spray mixture • enhanced pesticide uptake due to adjuvant influence on permeability of surface and sub-surface cell structures • improved tenacity due to cationic properties

Benefits

- Ensures even and thorough coverage of plant foliage to increase herbicide absorption
- Allows the spray solution to evenly wet the most hairy, waxy or difficult to wet weed foliage
- Increases herbicide activity with superior Wetting / Spread-ability and spray coverage
- Reduces spray Surface Tension
- Nemo is the ideal surfactant addition with glyphosate, and will soon become the standard for glyphosate spraying in the Australian AgChem industry
- Approved Surfactant in Aquatic Situations

Ideal for areas such as:

- Fallows / Non-Crop Areas where glyphosate needs improved activity on weeds
- Where an aquatic approved glyphosate or diquat is used / required:
 - Commercial, industrial, and public service areas
 - ⇒ Fence lines
 - ⇒ Edges of pathways etc.
 - ⇒ Roadsides (especially near gutters)
 - ⇒ Rights of way - access roads, driveways and paths

Packaging

Pack sizes: 10 L, 1000 L

Agricultural Non-Crop Areas, Commercial and Industrial Areas, Rights-of-Way, Fallow and Firebreaks

Situation		
<p>Nemo Surfactant can be used for the addition to glyphosate products approved for use in Agricultural Non-Crop Areas, Commercial and Industrial Areas, Rights-of-Way, Fallow and Firebreaks, e.g.:</p> <ul style="list-style-type: none"> glyphosate products (i.e. 360 g/L, 450 g/L, 510 g/L, 540 g/L, 680 g/kg, 700 g/kg, 800 g/kg) diquat products – (i.e. 200 g/L) <p>When mixing with the glyphosate or diquat products, always follow the label instructions for that product.</p>		
Application Method	NEMO Rate	Critical Comments
Ground Boom	200 – 300 mL per 100 L of spray solution	Use the higher rate on waxy, hairy or hard to wet leaf surfaces.
Handgun	50 – 70 mL per 100 L of spray solution	
Knapsack	7.5 – 10 mL per 15 L of spray solution	
Wiper Equipment and Controlled Droplet Applicators	1.3 mL per litre of spray solution	

Note: The above table represents only a modified extract from the full registered label. Always read the full product label before use.



Mixing

Mix the glyphosate or diquat product with the total amount of water before adding the NEMO. Mix thoroughly. If NEMO is added during filling, foaming may occur.

Application - Agricultural Non-Crop Areas, Commercial and Industrial Areas, Rights-of-Way, Fallow and Firebreaks

Spray to the point where leaves and stems are just wet. Spraying beyond this will encourage runoff, with obvious loss of product and efficacy.

When spraying waxy or hairy leafed plants which are normally hard to wet, increased activity will be obtained by increasing the rate of NEMO. It is important that the leaves and stems are thoroughly wetted for foliar herbicides to work efficiently, particularly when treating dense, tall vegetation.

Opinion

It has been known for many years that amphoteric surfactants are ideal for use with glyphosate. With Nemo now available in the market, it is a real game changer for glyphosate users; wanting better results, or similar results using less glyphosate per ha. Nemo being a Amphoteric surfactant has the ability to change charge (cationic to anionic or anionic to cationic), depending on pH. At the pH levels associated with glyphosate, which is below 7, Nemo is cationic (+). I believe Nemo entering the market is fantastic news for glyphosate uses.

Peter Howat—Director, Wallaby Solutions

Aquatic Situations

Situation		
<p>Nemo Surfactant can be used for the addition to glyphosate and diquat products approved for use in aquatic situations, e.g.:</p> <ul style="list-style-type: none"> glyphosate products – approved for use in aquatic situations (i.e. Roundup® Biactive Herbicide by Monsanto, Nufarm Weedmaster® Duo Dual Salt Technology Herbicide, Erazo® 360 Bi-Aquatic Herbicide) diquat products - approved for use in aquatic situations (i.e. Reglone® Non-Residual Herbicide) <p>When mixing with the above-mentioned products, always follow the label instructions for that product.</p>		
Application Method	NEMO Rate	Critical Comments
Ground Boom	200 – 300 mL per 100 L	Use the higher rate on waxy, hairy or hard to wet leaf surfaces.
Handgun	50 – 70 mL per 100 L of spray solution	
Knapsack	7.5 – 10 mL per 15 L of spray solution	
Wiper Equipment and Controlled Droplet Applicators	1.3 mL per litre of spray solution	

Note: The above table represents only a modified extract from the full registered label. Always read the full product label before use.



Mixing

Mix the glyphosate or diquat product with the total amount of water before adding the NEMO. Mix thoroughly. If NEMO is added during filling, foaming may occur.

Application - Aquatic Situations

DO NOT apply this product when mixed with approved aquatic herbicides within 0.5 km up-stream of potable water intake in flowing water (i.e. river or stream, etc.) or within 0.5 km of a potable water intake in a standing body of water such as a lake, pond or reservoir.

Applications to moving bodies of water should be made while travelling upstream wherever possible to prevent concentration of this product in water. When making any bankside applications, DO NOT overspray more than 0.5 m into open water. Avoid spraying across moving bodies of water, or where weeds do not exist. When emerged infestations require treatment of the total surface area of impounded water, treating the area in strips may avoid sudden impact on habitat.

PLEASE NOTE: only glyphosate and diquat products **approved** for use in **aquatic situations** are to be used in aquatic situations with NEMO.

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Nemo Surfactant

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