

**STAMINA<sup>®</sup>** **G**



 **NUTURF<sup>®</sup>**  
SPECIALISTS PROVIDING SOLUTIONS

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# STAMINA<sup>®</sup> **G**



## The long term granular

**STAMINA G** is an easy to spread granular formulation of **STAMINA G**, providing excellent residual wetting performance and prevention of localised Dry Spot. **STAMINA G** is specifically for use in higher cut turf situations such as sportsfields, parks, fairways, racetracks and turf farms.

The granular formulation, provides a great option of application for users who don't have boom sprayers available, in areas where boom spray application is not safe, at renovation or in the turf establishment phase when limitations of heavy vehicles movement is apparent or in new garden bed plantings.

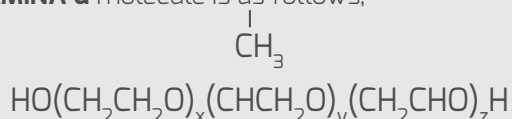
### Major benefits of STAMINA G

- Proven performance, backed by Nuturf and BASF.
- Easy to use granular product.
- Excellent residual performance.
- Improves Water usage by improving water penetration and retention.
- Reduces irrigation requirements by increasing the rate and depth of water penetration.
- Non burn formulation.
- Effective in both sand and heavier soil profiles.
- Manufactured and developed in Australia for Australian conditions.

STAMINA G at a glance	
Formulation:	20% granular surfactant on a Zeolite carrier
Granule size:	1-2mm
CEC Level:	72meq/110g
Uses:	Long term prevention and control of dry patch
Rate:	125 - 250kg/ha
Residual performance:	Several months
Potential for burn:	Non burn formulation

### The molecule in STAMINA G

The molecule in **STAMINA G** is a heavy molecular weighted material. It is a EO/PO block co-polymer, which is a non-ionic surfactant containing ethylene oxide and propylene oxide units. EO/PO block copolymers allow for efficient wetting because the water hating end of the chemical attaches itself to the water repellent sand by physical adsorption, providing an anchor which allows the more water soluble end to extend into the aqueous phase to draw water to the soil's surface. The chemical structure of the **STAMINA G** molecule is as follows;



The large nature of the molecule, is what gives **STAMINA G** its residual performance. Microbial decomposition takes several months, due to the complexity of its molecular make up.



# STAMINA G Performance

## Longevity and rewetting performance

The trial was established to determine wetting agent performance on a hydrophobic soil material over an extended period of time (kept in greenhouse conditions). At each month, water droplet penetration tests (WDPT) were undertaken, with the results recorded in the table to the right. It clearly indicates that **STAMINA G** molecule had improved performance over the untreated control at all months over the 6 month period, confirming the excellent residual and rewetting capabilities of **STAMINA G**.

## Environmental benefits

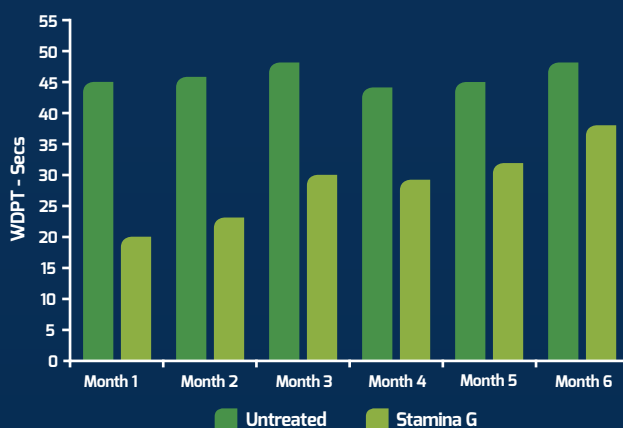
By using the ranking provided (US EPA guidelines) and on the basis of the results from two bioassays conducted **STAMINA G** can be considered as being a non-toxic surfactant to frogs.

## Summary of the toxicity data on STAMINA G

	48-h tadpole bioassay (mg/L)	96-h teratogenic assay (mg/L)
LC <sub>50</sub>	9,000	7,500

**LC<sub>50</sub> (lethal concentration to 50 per cent):** the concentration of a chemical in water which kills 50 per cent of the organisms placed in that water for a stated time, usually 48 or 96 hours.

## Wetting longevity trial



Concentration (mg/L)	Toxicity category
<0.1	Very highly toxic
0.1 – 1	Highly toxic
>1 – 10	Moderately toxic
>10 – 100	Slightly toxic
>100	Practically non toxic

## Using STAMINA G

Situation	Rate/100m2	Rate/Ha	Comments
Preventative application of localised Dry Spot in sportsfields, fairways, parks, turf farms and amenity areas.	1.25 - 2.5kg	125 - 250kg	<b>STAMINA G</b> works best when applied early in the growing season prior to moisture stress. However it can be used curatively to relieve plant stress due to hydrophobic soils any time during the year.
Garden beds, planter boxes and mulches.	2.5kg	250kg	Sprinkle <b>STAMINA G</b> granules over the area to be treated. <b>STAMINA G</b> can be simply applied to the surface of an existing garden bed or can be incorporated into the garden as new beds are made. Applying before periods of rain will assist in building up reserves of soil moisture for the dryer periods.

Spreader settings	2kg/100sqm
Lesco calibration gauge	12.5
Scotts R8A	L
Central hole setting	13mm

These settings are only approximate. Application speed, age and condition of spreader can cause wide variation. Be sure to calibrate your spreader before application.