



VERDESIAN



**NutriSphere-N<sup>®</sup>**

APPLICATION GUIDE  
FOR GRANULAR UREA FERTILISERS





## GUIDE TO APPLICATION, BLENDING AND STORAGE

Verdesian products for granular urea fertilisers are for use only by professional suppliers, blenders, agricultural and horticultural contractors.



### Application – General

- NutriSphere-N (granular) should be used with granular nitrogen fertilisers such as urea
- NutriSphere-N is effective with fertilisers containing carbamide and ammonium-N, also high-N fertilisers containing carbamide-N.
- NutriSphere-N improves storage and application properties of the urea and reduces dust formation
- NutriSphere-N treated urea fertiliser also shows improved storage and handling properties



### Making bulk blends

Before blending with other components

- Always treat the urea first and have it dried and fully cured before it is used in a blend. Curing requires 24 hours before bagging. NutriSphere-N treated urea behaves as good as or better than untreated urea.
- NutriSphere-N treated urea fertiliser can be used in a blend containing phosphate treated with Avail.
- As in any bulk blend the type and quality of the blending components may influence the properties (storage, shelf life, application) of the made blend.

Do not apply NutriSphere-N for granular urea into liquid N fertiliser (UAN) or seeds.



## APPLICATION RATE FOR NUTRISPHERE-N®

2.1 LITRES / TONNE OF FERTILISER

### How to apply

- It is recommended to use 316 grade pumps and attachments for application of the NutriSphere-N. Seals should be made of HDPE®, Gore-Tex®, Teflon™ or Viton®.
- Dye maybe added to NutriSphere-N before application – Follow dye manufacturer instructions
- Using a calibrated sprayer apply onto fertiliser moving on conveyor belt
- Immediately after application, the NutriSphere-N treated fertiliser should have a mixing process to ensure as much as possible equal distribution across granules

### Mixing drum

- Drum must always be filled with fertiliser first
- NutriSphere-N should be applied by spraying into the moving drum
- Very small batches can be treated by slowly pouring NutriSphere-N into the moving drum
- Residence time in the drum should be no more than 6 minutes

It is not necessary to evenly cover the entire granule surface; however, an approximate equal amount of granular product should have impregnated any fertiliser granules.

### Drying time

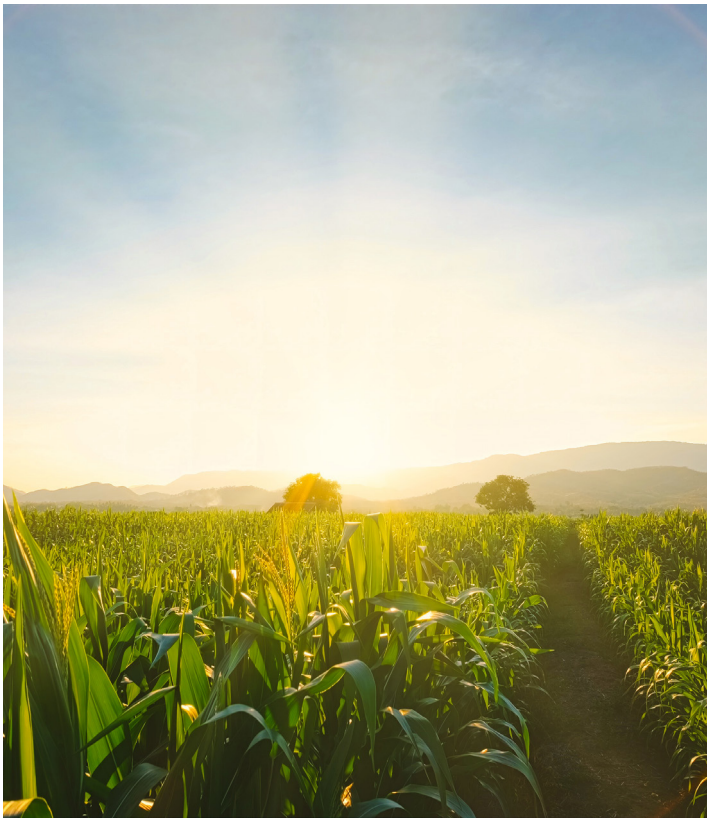
- Treated fertiliser should be allowed to dry
- Additives such as dyes can change drying time
- The typical drying time is  $\pm 5$  minutes, however,
- The actual drying time will depend on
- The fertiliser used
- The degree of moisture in the fertiliser
- Environmental conditions, the temperature and relative humidity of the air
- The equipment used and speed of mixing.

### Cleaning

- After application, cleaning down of equipment with water is recommended as NutriSphere-N are readily soluble in water

### Storage

- NutriSphere-N product has a shelf life of 2 years. Containers should be kept in a cool, dry, clean place and protected from direct sunlight.
- Storage properties of NutriSphere-N treated urea treated P-fertiliser are improved over non-treated.
- After application NutriSphere-N will remain fully efficient over the storage time of the treated urea and phosphate fertiliser.



### Safety and disposal

- Read instruction on product label before use.
- Wear protective clothing and equipment to avoid contact with skin or eyes or breathing in mist from sprayer.
- Observe local laws regarding disposal of containers or waste product.
- Do not apply NutriSphere-N for granular urea into liquid N fertiliser (UAN) or seeds.

There is no restriction to the crops the treated fertiliser can be applied to but always observe any local regulation.

### Hazard statements

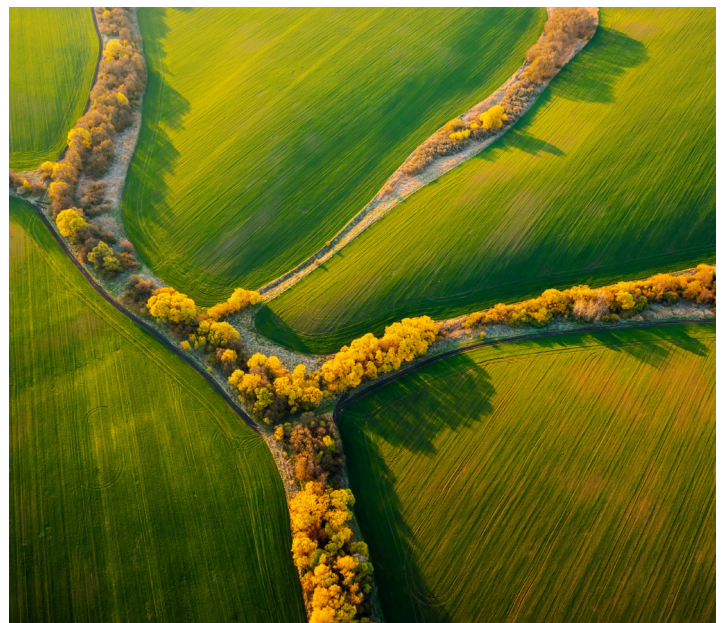
H317 May cause an allergic skin reaction.

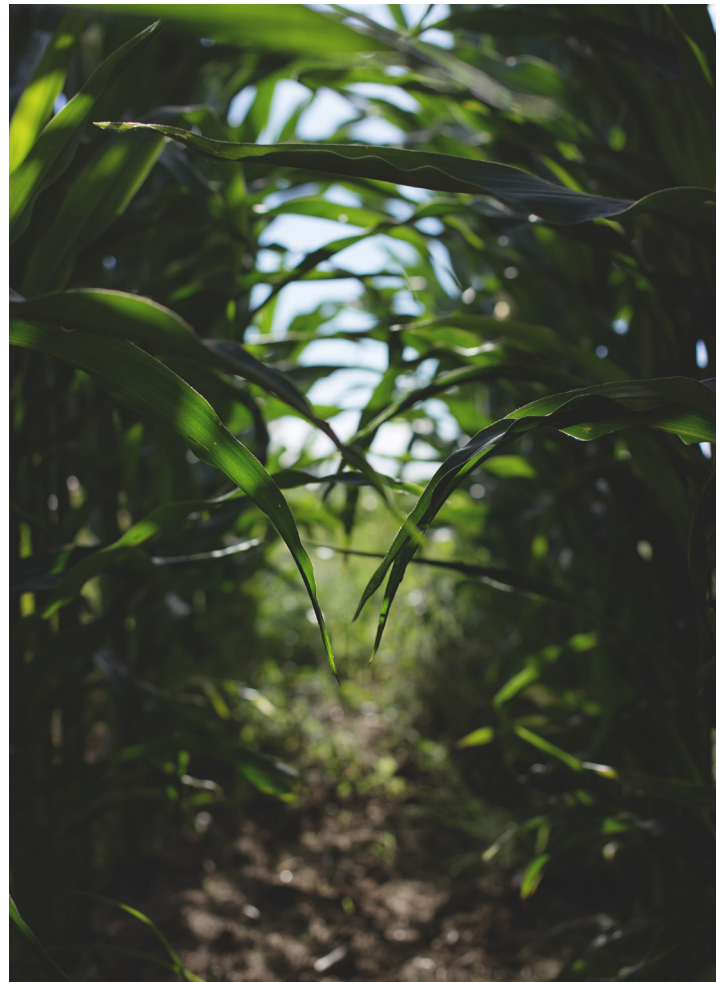
### Curing

- After treatment of urea, a curing time of 24 hrs should be allowed
- Bulk: to cure leave treated fertiliser overnight in a bin. Big bags can be filled directly after treatment, however, should be left open until the next day.

### Additional NutriSphere-N requirements

- When blending urea with sulphur containing fertiliser like sulphate of ammonia (SA) special attention should be given to using dry components and maintaining a dry environment.
- NutriSphere-N treated urea must be fully cured before mixing into a blend containing sulphur
- It is recommended that storage time of sulphur containing blends should be kept to a minimum





## PRECAUTIONARY STATEMENTS-GRANULAR

### Nutrisphere-N®

P261	Avoid breathing mists/vapours/aerosols.
P280	Wear protective gloves/protective clothing.
P302 + P352	IF ON SKIN: Wash with plenty of water and soap.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P501	Dispose of the contents/container in a collection centre for dangerous goods and hazardous waste in accordance to local, regional, national and/or international regulations.



## POLYMER INTERMEDIATE BULK CONTAINER (IBC)

Verdesian Polymers are packed in a pallet mounted intermediate bulk container (IBC).

The IBC is capable of stacking and can be moved by a pallet truck or forklift. When filled to their maximum gross weight the IBC can be stacked to a maximum of 2 high.

Verdesian do not recommend stacking filled IBC's when transporting.



### Specification

Contents	946L
UN Code	UN 31HA1/Y
Dimensions	W 1000mm D 1200mm H 1162mm
Cap	150mm, 2 Way Vented
Cap Gasket	Viton
Bottle	HDPE
Cage	Galvanised Tubular Steel
Pallet	Galvanised Tubular Steel / 4-way entry
Tare Weight	60kg
Outlet Valve	Cylinder With Dust Cover
Valve Connection	Quick Disconnect QD



**VERDESIAN**

THE NUTRIENT USE EFFICIENCY PEOPLE®