



NutriSphere-N[®]

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 ± 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

| | |
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| 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®