



VERDESIAN

APPLICATION GUIDE



NutriSphere-N[®]



AVAIL[®]



NutriSphere-NL[®]





Select application process
for the correct type of
product below:



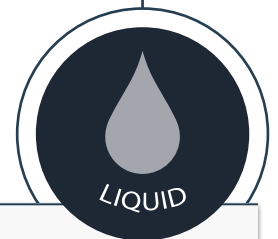
or



NutriSphere-NL[®]

Liquid guide to application, blending and storage

Verdesian products for liquid nitrogen fertilisers are for use only by professional suppliers, blenders, agricultural, horticultural contractors or on-farm users. There is no restriction to the crops they can be applied to.



NutriSphere-NL[®]

Recommendations for use

- NutriSphere-NL is applied at 5 litres into 1000 litres of UAN (0.5% of total tank mix) or 3.9 litres per 1000kg UAN.
- It is recommended that '316' stainless steel pumps and attachments are used for application. Where possible seals should be made of Gore-Tex[®], Teflon[™] or Vitcon[®].
- Once tank mixed with UAN it can be stored for the same duration as the fertiliser without loss of efficiency.
- If a sulphur based product is to be added to the UAN then this should be done after the mixing of the NutriSphere-NL and will have no effect on the storage.
- If a sulphur product has been pre-mixed with the UAN before NutriSphere-NL is applied then fertiliser should be stored for no more than 1 month before application to crop.
- Do not apply NutriSphere-NL for liquid fertiliser onto granular fertiliser or seeds.

Hazard statements

- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.



Guide to application, blending and storage

Verdesian products for granular urea and phosphate fertilisers are for use only by professional suppliers, blenders, agricultural and horticultural contractors. There is no restriction to the crops they can be applied to.



NutriSphere-N®



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 - General

- Avail (granular) is used with granular phosphorus fertilisers such as DAP, TSP, NP, NPK
- Avail treated granular phosphorus fertiliser remains effective over a cropping season and beyond
- Avail improves storage and application properties of the phosphorus fertiliser and reduces dust formation
- Fertiliser bulk blends containing Avail treated phosphorus fertiliser show improved storage and handling properties

Making bulk blends:

Before blending with other components

- Always treat the P-fertiliser first and have it dried before it is used in a blend. Avail treated P-fertiliser behaves as good as or better than untreated.
- Avail treated phosphate fertiliser can be used in a blend containing cured urea treated with NutriSphere-N.
- 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 Avail for granular phosphate into liquid P fertiliser or onto seeds.

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

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.
- Do not apply Avail for granular phosphate into liquid P fertiliser

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.

Mixing drum

- Drum must always be filled with fertiliser first
- NutriSphere-N and Avail should be applied by spraying into the moving drum
- Very small batches can be treated by slowly pouring NutriSphere-N or Avail 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.

Cleaning

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

Storage

- NutriSphere-N and Avail 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 and Avail treated P-fertiliser are improved over non-treated.
- After application NutriSphere-N and Avail will remain fully efficient over the storage time of the treated urea and phosphate fertiliser.

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.

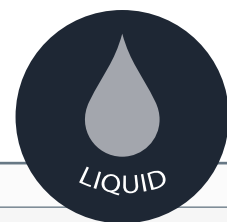
Precautionary statements-Granular



Nutrisphere-N® and Avail®

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.

Precautionary statements-Liquid



Nutrisphere-NL®

P260	Do not breathe spray.
P280	Wear protective gloves/protective clothing, eye/face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and continue rinsing.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.

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

