

# N-EDGE® AT-A-GLANCE



N-Edge® is an NBPT-based nitrogen stabilizer offered exclusively by CHS Inc. NBPT is a proven urease inhibitor that temporarily blocks naturally-occurring urease enzymes from breaking down urea-based nitrogen fertilizers, preventing ammonia volatilization.

## FAST FACTS:

- A single tote contains 250 gallons of N-Edge® and treats 333 tons of urea or 667 tons of UAN at recommended rates
- N-Edge® contains 26.7% of the active ingredient NBPT
- A 2.5-gallon jug treats 3.3 tons of urea or 6.6 tons of UAN

## FEATURES & BENEFITS

- N-Edge® keeps nitrogen fertilizer available to the plant longer, protecting nitrogen investment and reducing ammonia emissions
- Surfactant to provide better flow and superior coverage
- Solution dries fast, improving handling
- Formulation requires less blending time, speeding up operations
- Penetrating agent treats more of the urea granule, delivering consistent results

## N-Edge® product characteristics:

- pH: 8
- Density: 9.78 lb/gallon
- Active ingredient: 26.7% NBPT by weight
- Application rate: 3 quarts/ton (urea); 1.5 quarts/ton (UAN)

## N-Edge® packaging:

- One 250-gallon tote contains 2,445 lbs. of N-Edge®
- The approximate gross weight of 1 tote is 2,582 lbs.
- One pallet of 2.5-gallon jugs contains 180 gallons of N-Edge® (36 shrink-wrapped cases per pallet)
- One van trailer holds 22 pallets of N-Edge® in 2.5 gallon jugs or 18 250-gallon totes

## Storage and handling of N-Edge®:

- Agitate totes to stir up any pigment that may have settled while stored
- When air sparging totes, be sure there is no water in lines or condensation in compressor
- Inside storage is recommended, but if storing outside, cover with a tarp for UV protection
- Although product will not freeze or form crystals above -10° F (-23.3° C), avoid storage below 20° F (-6.6° C) or above 110° F (43.3° C)

## Blending urea with N-Edge®:

- Add urea first to the blender and then add N-Edge®, allowing sufficient time to produce uniformly-blended product
- If blending with other fertilizers, treat urea before introducing other products
- Uniform product (i.e., urea) is achieved through the right balance of proper blending equipment and contact time with N-Edge®
- It is not necessary to clean blender after using N-Edge®, simply return to normal operations
- Urea treated with N-Edge® can be stored for 90 days and used or blended as normal for field application (fast-drying technology allows for bagging)



### Blending UAN with N-Edge®:

- When adding to UAN solution, fill blend unit half full of UAN solution and then add N-Edge® at the appropriate rate for the entire load/mix, then add the remaining UAN and mix thoroughly before adding any surfactants, pesticides or other materials

### Using Pumps & Meters with N-Edge®:

- When pumping N-Edge®, progressive cavity or gear pumps are recommended. Wetted parts should be stainless steel and inlet/outlet should be at least 3/4-inch
- Tote outlet should be elevated at least 1 foot higher than pump to ensure sufficient head pressure for the pump
- Neck down the 2-inch line from the tote outlet at the pump (not at the tote)
- Individual set up will vary by installation parameters (e.g., volume flow, distance to and height of pump, flow meters, etc.), so it is recommended that you consult with a pump specialist to meet your specific needs
- Be sure pumps, lines, and equipment are free from other chemicals, water, or residue before introducing N-Edge®

### N-Edge® reduces nitrogen loss in two ways:

- Inhibits activity of the enzyme (urease) that breaks down urea
- Slows the conversion of urea to ammonia gas

### Protecting against nitrogen loss is especially critical:

- When fertilizer is surface applied, especially to moist soils
- Under high crop residue such as reduced or no-till conditions
- When warm temperatures, high soil pH, and other weather and field challenges lead to increased nitrogen loss at or near the soil surface



#### Definitions:

- Nitrogen stabilizer – is added to fertilizer to extend the time nitrogen remains available to the plant
- Urease inhibitor – inhibits hydrolytic action on urea by urease enzymes, temporarily preventing volatilization
- NBPT – N-(nbutyl) thiophosphoric triamide is a chemical compound that functions as a urease inhibitor