

# N-EDGE® NITROGEN STABILIZER



## CONTAINS

N-(n-butyl) thiophosphoric triamide (NBPT) CAS No: 94317-64-3

Benzaldehyde CAS No: 100-52-7

Dimethyl sulfoxide (DMSO) CAS No: 67-68-5

1,2,3-propanetriol CAS No: 56-81-5

N-Edge® nitrogen stabilizer is supplied as a 26.7% by weight active ingredient solution of N-(n-butyl) thiophosphoric triamide (NBPT).

## GENERAL INFORMATION

N-Edge nitrogen stabilizer is a uniquely formulated fertilizer additive for urea and urea ammonium nitrate (UAN) fertilizers. By slowing the urea conversion process to ammonia gas, less nitrogen is lost due to volatilization. The product inhibits the activity of the urease enzyme reducing nitrogen loss.

This nitrogen stabilizer is combined with urea or urea containing fertilizers prior to application. The combination, recognized as an enhanced efficiency fertilizer, can be incorporated or applied pre-plant, side-dress or used for surface applications. It helps create an efficient nitrogen source for all crops, turf and forestry.

Protect this product from freezing.

## USE RATE

N-Edge nitrogen stabilizer is supplied as a 26.7% by weight active ingredient solution of N-(n-butyl) thiophosphoric triamide (NBPT).

General rate recommendations are based on average conditions. Rates may be adjusted higher as needed based on the field conditions, including the following:

- 1) Soil pH- Values higher than 7.0 pose risk of higher potential for volatility.
- 2) Days of Control Needed: 0.8 inches of rain or irrigation are required to move urea into the soil.
- 3) Residue Level: Residues in excess of 30% present higher levels of urease and higher volatility can be expected.

## USE RATE PER TON OF FERTILIZER

Urea	2-4 quarts per ton
UAN	1.5-2.5 quarts per ton

## UREA APPLICATION

Ensure operators are wearing proper personal protection (see above).

Blending area must be well-ventilated with large volumes of air exchange. NIOSH/MSHA approved organic/mist respirators may be required if there is insufficient ventilation.

Minimize temperature and humidity extremes when blending. Extremes may result in urea particles sticking together creating problems with uniform coverage. Small amounts of drying agents may be used as deemed appropriate for local conditions. The use of such products is based upon the blender's experience with such agents.

## Equipment Required

A fertilizer blender or other suitable rotary device is suitable for uniform blending of urea and N-Edge nitrogen stabilizer. Ensure that all surfaces of the blender that come into contact with materials are clean, dry and rust-free.

## Urea Blending Procedure

- Accurately weigh all materials in the blend formula.
- Add urea first to the blender. N-Edge nitrogen stabilizer should be blended with the urea before introducing any other fertilizer components.
- Apply N-Edge nitrogen stabilizer to urea in blender by suitable method and allow sufficient time to produce a uniformly blended product. Dye is added to the product to act as an indicator of uniform blending.

## HAZARD STATEMENTS

Causes serious eye damage and skin irritation. Harmful if swallowed.

## PRECAUTIONARY STATEMENTS

Do not handle until all safety precautions have been read and understood. When using this product, wear eye, face, skin and clothing protection. Do not eat, drink or smoke when using this product. After handling this product, wash hands, forearms and face thoroughly.

**If exposed or concerned:** Immediately call poison control center or doctor for further treatment advice. **If on skin:** Wash thoroughly with water.

**If swallowed or in eyes:** Rinse cautiously with water for several minutes. Remove and wash contaminated clothing before reuse. Dispose of contents/container to a licensed hazardous waste facility in accordance with state and local agencies.

**FOR CHEMICAL EMERGENCY:**  
Call CHEMTREC day or night.

**USA and Canada:**  
1-800-424-9300

**Outside USA and Canada:**  
+1 703-527-3887  
(collect calls accepted)

**READ THE SAFETY DATA SHEET  
BEFORE USING THIS PRODUCT.**

Always read and follow label directions.

At 70°F / 21.1°C the Specific Gravity = 1.11 and the Weight per gallon = 9.26 lb./gal.



## DIRECTIONS FOR USE - WARNING

Read the entire label before use. Use according to label directions. Read the entire Conditions of Sale and Limitation of Warranty before buying or using this product. Always wear proper personal protection; use Neoprene gloves (Ansell Edmont Neox Number 9-912) or equivalent, long sleeves, long pants, and chemical splash goggles when handling N-Edge nitrogen stabilizer.

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## Urea Storage

Treated urea can be stored up to six weeks without significant degradation, but it is recommended to use treated fertilizer as soon as possible. Granular dry urea treated with N-Edge® nitrogen stabilizer is suitable for longer-term storage in sealed plastic bags. Stabilized fertilizer packaged in sealed bags may be stored up to 9 months between 66° and 77°F (19° and 25°C).

## UAN APPLICATION

Ensure operators are wearing proper personal protection (see above).

### UAN Blending Procedure

- Fill the blend unit half full with UAN solution.
- Add N-Edge nitrogen stabilizer at the appropriate rate for the entire load and mix.
- Add the remaining UAN solution and mix thoroughly prior to the addition of any surfactants, pesticides or any other materials.

### Compatibility

Perform a jar test with any additional products to evaluate compatibility before mixing. Note that Glyphosate herbicides may cause an increase in the rate of degradation of NBPT. Apply these blends soon after mixing.

### UAN Storage

The half-life of N-Edge nitrogen stabilizer in UAN solutions is dependent upon components used and storage conditions. It is estimated that acceptable performance could be expected up to 10 weeks when stored at 77°F (25°C).

## MANURE - FIELD SURFACE

Ensure operators are wearing proper personal protection (see above).

N-Edge nitrogen stabilizer may be used for manure applications in the field to reduce the volatility of the urea contained in livestock manure applied to the surface.

FIELD SURFACE APPLICATION USE RATE PER TON OF MANURE =  
100 ml / ton

Use water as a carrier and spray on during load out or over the top after application to soil surface. Two hundred liters of water per acre should be the minimum for over the top applications. Retreatment may be required if minimum rain of 20mm has not occurred within one week after application.

## MANURE - FACILITY WEEKLY APPLICATION

N-Edge nitrogen stabilizer may be applied to manure in livestock holding facilities. It is effective up to one week after treatment. Apply the solution weekly. N-Edge nitrogen stabilizer should be diluted with water for application. Use just enough water to dampen manure surface. Best practice for application is determined by local conditions.

Do not apply to feedstuffs or surfaces where animals will feed or drink.

### FACILITY APPLICATION USE RATES - Per Head Calculations (ml)

Horses 2.0  
Beef cattle 2.0  
Dairy cattle 3.0  
Sheep 0.15  
Poultry 0.01  
Pigs (nursery) 0.1  
Pigs (grow/finish) 0.3

### FACILITY APPLICATION USE RATES - Per Unit of Manure Calculation

Solid Manure: 0.08 ml per kg of manure  
Liquid Manure: 0.07 ml per liter of manure

## TURF APPLICATIONS

Ensure operators are wearing proper personal protection (see above).

It is recommended that N-Edge nitrogen stabilizer be blended with pure urea fertilizers or soluble urea solutions at four ounces per 50 pounds of urea.

Reference the instructions for urea and UAN provided above. Use only clean urea for melting into solution if you choose this approach.

## GENERAL USE PRECAUTIONS

NOT A FERTILIZER SUBSTITUTE

NOT RECOMMENDED FOR FEED APPLICATION

Observe all precautions on label and read material safety data sheet before use. Do not apply directly to water. Avoid contaminating waterways and sewers during cleaning of equipment, disposal of wastes. Use and disposal of all materials must be in accordance with all applicable provisions of local, state and federal laws and regulations.

## INHERENT RISKS OF USE AND LIMITATION OF LIABILITY

### CONDITIONS OF SALE AND LIMITATION OF WARRANTY

CHS Inc. warrants only that this product conforms to the chemical description on the label and that it is reasonably suited for the purposes stated on the label when used in accordance with the Directions For Use under normal conditions. Since the user's conditions may vary, CHS Inc. and/or the Seller or any other representative of Seller is not authorized to make another warranty claim of any kind, expressed or implied concerning the use of this product. The user assumes all risk of use and handling whether or not in accordance with directions or suggestions. CHS Inc. shall under no circumstances whatsoever be liable for any special, incidental or consequential damages which may arise from such use. All information is given in the best of CHS Inc.'s knowledge and is believed to be accurate. There is no warranty of any type regarding the accuracy of any given statements.

- Jug: 2.5 U.S. gal. (9.46 Liters)  
Net Weight: 23.15 lb. (10.50 kg)
- Box: 2 x 2.5 U.S. gal. (2 x 9.46 Liters)  
Net Weight: 46.30 lb. (21.00 kg)
- Tote: 250 U.S. gal. (946.35 Liters)  
Net Weight: 2,315.00 lb. (1,050.00 kg)

Manufactured for CHS Inc.  
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