

# CONTAINS

N-(n-butyl) thiophosphoric triamide (NBPT) CAS No: 94317-64-3 Dicyandiamide (DCD) CAS No: 461-58-5 Dimethyl sulfoxide (DMSO) CAS No: 67-68-5



# HAZARD STATEMENTS

Causes serious eye damage. Causes skin irritation. May cause respiratory irritation. Possible risk of impaired fertility.

# PRECAUTIONARY STATEMENTS

Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye and face protection. Avoid breathing mist, vapours, sprays or gas.

**IF IN EYES:** Rinse cautiously with water for several minutes. If present and easy to do, remove contact lenses and continue rinsing eyes. Immediately seek medical attention.



IF EXPOSED OR CONCERNED: Get medical advice.

For Chemical Emergency: Call CHEMTREC day or night. USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

**READ THE SAFETY DATA SHEET BEFORE USING THIS PRODUCT.** Always read and follow label directions.

## 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 eNrich nitrogen stabilizer.

## **GENERAL INFORMATION**

eNrich nitrogen stabilizer with proprietary technology 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

eNrich nitrogen stabilizer is supplied as a 26.7% by weight active ingredient solution of NBPT and 7% by weight of DCD.

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: .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 FERTILIZER**

Urea	3 to 5 quarts per ton
UAN	1.5 to 2.5 quarts per ton

## UREA APPLICATION

Ensure operators are wearing proper personnel 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 eNrichD nitrogen stabilizer. Ensure that all surfaces of the blender that come into contact with materials are clean, dry and rust-free.

## **Blending Procedure**

Accurately weight all materials in the blend formula. Add urea first to the blender. eNrich nitrogen stabilizer should be blended with the urea before introducing any other fertilizer components. Apply eNrich 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.

## **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 eNrich stabilizer is suitable for longer-term storage in sealed plastic bags. Research shows stabilized fertilizer packaged in sealed bags may be stored up to 9 months between 19 degrees and 25 degrees C.

## **UAN APPLICATION**

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

#### Blending procedure

Fill the blend unit half full with UAN solution.

Add eNrich 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 eNrich 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 25 degrees C.

## MANURE - FIELD SURFACE

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

eNrich nitrogenstabilizermaybeusedformanureapplications 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 with one week after application.

## MANURE - FACILITY WEEKLY APPLICATION

eNrich nitrogen stabilizer may be applied to manure in livestock holding facilities. It is effective up to one week after treatment. Apply the solution weekly. eNrich 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 feed stuffs 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 personnel protection (see above).

It is recommended that eNrich nitrogen stabilizer be blended with pure urea fertilizers or soluble urea solutions at four ounces per fifty 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

Seller warrants that this product conforms with its specifications and is reasonably fit for the purposes stated on the label when used in accordance with its directions under normal conditions of use. To the extent permitted by applicable law, buyer assumes the risk of any use contrary to such directions. Seller makes no other **expressed** or implied warranty of fitness or merchantability and no agent or reseller is authorized to do so except by Seller in writing with a specific reference to this warranty. To the extent consistent with applicable law, in no event shall Seller's liability for any breach of warranty exceed the purchase price of the material on which claim is made.





US Patents: 9,637,420 and 9,650,306