AGROTAIN® ULTRA

AGROTAIN® ULTRA nitrogen stabilizer is a fertilizer additive for urea and urea ammonium nitrate (UAN) fertilizers that reduces ammonia volatilization by inhibiting the activity of the urease enzyme. Not recommended for use as a fertilizer substitute.

CONTAINS:
Active ingredient (26.7%): N-(n-butyl) thiophosphoric triamide (NBPT) (CAS RN 94317-64-3)
Inactive Ingredients (73.3%): N-methyl-2-pyrrolidone (CAS RN 872-50-4), 1,2-Propanediol (CAS RN 57-55-6), Dyes

DANGER

HAZARD STATEMENTS
Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. May damage fertility or the unborn child.

PRECAUTIONARY STATEMENTS
Do not handle until all safety precautions have been read and understood.

Wear protective gloves/protective clothing/eye protection/face protection.
Avoid breathing mist/vapors/spray.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

IF EXPOSED OR CONCERNED: Get medical advice/attention.
Supplemental label information: Restricted to professional users.

FOR CHEMICAL EMERGENCY:
Call CHEMTREC day or night.
USA/Canada - 1.800.424.9300
Outside USA/Canada - 1.703.527.3887

Supplier:
Koch Agronomic Services, LLC
4111 East 37th Street North
Wichita, KS 67220
(866) 863-5550
kochmsds@kochind.com

KOCH™ AGRONOMIC SERVICES

Read and understand the safety data sheet before using this product.

PEEL BACK BOOK HERE AND RESEAL AFTER OPENING

BEFORE USING THIS PRODUCT, PLEASE READ THE TERMS AND CONDITIONS OF USE AND TERMS AND CONDITIONS OF THE LIMITED WARRANTY, WARRANTY LIMITATION, AND INHERENT RISKS OF USE/LIMITATION OF LIABILITY/LIMITATION OF REMEDIES CONTAINED IN THIS LABEL. IF YOU ARE UNWILLING OR UNABLE TO BE BOUND BY THE TERMS AND CONDITIONS OF USE, OR SUCH OTHER TERMS AND CONDITIONS, YOU SHOULD NOT USE, ALTER OR, IF APPLICABLE, OPEN THE PRODUCT AND SHOULD RETURN IT TO THE SELLER UNUSED, UNALTERED AND, IF APPLICABLE, IN ITS UNOPENED ORIGINAL PACKAGING, WITH A VALID PROOF OF PURCHASE FOR A REFUND OF THE PURCHASE PRICE.

DIRECTIONS FOR USE

WARNING: Read the entire label before use. Use only according to label directions. Before buying or using this product, read the "Warranty Disclaimer" and "Inherent Risks of Use and Limitations of Liability" at the end of the label. If terms are unacceptable, return at once unopened to place of purchase. Always wear proper personal protection (recommend long sleeves and long pants, goggles, and ANSELL EDMONT NEOX Neoprene gloves Number 9-912 or equivalent when handling the product). Use only with adequate ventilation (large volumes of air movement). If organic vapors or dusts are present above their regulatory limits, follow a respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/ state, provincial or local requirements whenever workplace conditions warrant respirator use.

GENERAL USE PRECAUTIONS

Observe all precautions on label and read material safety data sheet before use. Do not apply to urea that will be used to supplement livestock rations. Do not apply directly to water. Do not contaminate waterways and sewers during cleaning of equipment or disposal of wastes. Always adhere to applicable provisions of federal, state, provincial, and local laws and regulations. Do not enter treated areas until spray has thoroughly dried. Keep livestock off treated areas until after 1 inch of rainfall has accumulated. Urea, which is a component in UAN, may be toxic to livestock when ingested.

APPLICATION RATES

AGROTAIN® ULTRA nitrogen stabilizer is urea specific and may be used for any nitrogen-consuming plants including row crops, specialty crops, pastures, sod farms, turfgrass, ornamentals and other landscape and nursery plantings. This product is recommended for surface, shallow-banded or shallow-incorporated (less than two inches) application of urea and urea-containing fertilizers such as pre-plant, pre-emergence, side-dress, top-dress or other post-planting applications. The benefits of AGROTAIN® ULTRA stabilizer as an urease inhibitor are a result of its ability to retard the hydrolysis of urea and control volatilization, preventing ammonia loss while the urea is on the soil surface or less than two inches deep in the soil.

Many factors in the environment contribute to volatilization, such as:

1. High soil moisture
2. Drying conditions including low humidity, sun and wind
3. High air and soil temperatures
4. High pH soils
5. Low organic matter and lower CEC soils
6. High amounts of crop residue

AGROTAIN® ULTRA NITROGEN STABILIZER USE RATE CHART

Urea	**3 quarts/ton**
UAN	**1.5 quarts/ton**

FOR BLENDING ON UREA

Equipment Required

- An accurate scale to weigh materials.
- A fertilizer blender or other equipment suitable for rolling or blending the urea particles with AGROTAIN® ULTRA stabilizer. A rotary device that can tumble the urea and allow for uniform contact with the product without spillage is appropriate. Auger and paddle mixers may also be used. Exposed inner surfaces should be clean, dry and rust-free.

Procedure

1. Wear proper personal protection which is long sleeves and long pants, goggles, and ANSELL EDMONT NEOX Neoprene gloves Number 9-912 or equivalent.
2. Use only with adequate ventilation with large volumes of air movement. If used with inadequate ventilation respiratory protection is required.
3. Weigh the urea and transfer into the mixing or blending equipment.
4. Measure the desired quantity of AGROTAIN® ULTRA stabilizer.
5. Apply the product to the urea in the blender. Blend well before introducing other fertilizer materials and allowing adequate time for uniform coverage. A dye is included in the product to assist in evaluating the uniformity of coverage.
6. Under certain temperature and humidity conditions urea blended with the product may stick together. Often the addition of other fertilizer materials to the blender, such as potash, will eliminate the need to add a drying agent. If the particles remain sticky, add small amounts of finely ground, highly absorbent, free-flowing powders such as attapulgite clays at concentrations as low as 0.25% by weight of the treated urea.

Storage after blending

Granular dry urea treated with AGROTAIN® ULTRA stabilizer is suitable for long-term storage. Research shows stabilized fertilizer may be stored up to 9 months for full effectiveness.

FOR MIXING WITH UREA-AMMONIUM NITRATE (UAN) SOLUTIONS

Procedure

1. Wear proper personal protection which is long sleeves and long pants, goggles, and ANSELL EDMONT NEOX Neoprene gloves Number 9-912 or equivalent.
2. Use only with adequate ventilation with large volumes of air movement. If used with inadequate ventilation respiratory protection is required.
3. Fill the spray tank half full with UAN solution.
4. With agitators on, add the appropriate amount of AGROTAIN® UTLRA nitrogen stabilizer for the desired concentration in the full volume.
5. Mix well and then add the remainder of the UAN solution prior to adding pesticides or surfactants.
6. Use blended UAN solution soon after mixing. Degradation of the active ingredient is known to be impacted by pH and temperature. UAN with a pH greater than 7 tends to increase the storage time; a pH of less than 7 will result in more rapid degradation of the active ingredient. Other additives to the UAN may also result in a more acidic solution, thus reducing the storage time.

Compatibility

Some testing has been conducted to assess the stability and compatibility of AGROTAIN® ULTRA nitrogen stabilizer with certain herbicides and adjuvants. Test results show that the rate of the degradation should not preclude the use of this product with most commonly used agricultural herbicides under normal use. Most agricultural chemicals compatible with UAN solutions are also compatible with this product. However, compatibility tests prior to use are recommended. Glyphosate herbicides may cause an increase in the rate of degradation of the active ingredient in AGROTAIN® ULTRA nitrogen stabilizer when tank mixed. Therefore such mix should be applied soon after mixing to avoid a possible reduction in the effectiveness of the active ingredient.

HANDLING AND STORAGE

Handling

Avoid exposure – obtain special instructions before use. Wear appropriate personal protective equipment. Avoid generation and spreading of dust. Avoid breathing mist/vapors/spray. Wear eye and face protection. Avoid prolonged exposure. Handle and open container with care. Wash before eating, drinking and/or smoking.

Storage

Avoid exposure – obtain special instructions before use. Use care in handling/storage. Store this product in tightly closed original container in a well-ventilated place and in accordance with local/regional/national/international regulations. Keep away from food, drink and animal feedingstuffs. **Keep out of reach of children.**

Avoid freezing. Store at temperatures between 32 ºF - 100 ºF (0 ºC - 38 ºC) and avoid contact with water. If the product is subjected to temperatures below 32 °F (0 °C) for an extended period of time, it will become gel-like and the formation of crystals will result in the bottom of the container. If this occurs, move product to a warm location where the inside temperature of the product can be brought above 57 °F (14 °C). At this point the product will return to its normal liquid state. Following these procedures the product may be used normally. No degradation of active ingredient will occur with the product that has been frozen.

Avoid high temperatures. Long term storage at temperatures above 100 °F (38 °C), and long term storage of open containers, will cause the active ingredient of the product to degrade. As the product degrades, it can release harmful gases. Store below 100 °F (38 °C) and use opened containers within 30 days. Always use oldest stock first.

Dispose according to federal, state, provincial, and local regulations. Dispose of containers after rinsing. Cold temperatures, hard water, or less than adequate amounts of water in rinsing may result in the formation of crystals. Offer empty containers for (i) recycling, (ii) reconditioning, or (iii) dispose in a landfill or by other procedures approved by relevant authorities.

TERMS AND CONDITIONS OF USE

If the terms of the following Warranty Disclaimer and Inherent Risks of Use and Limitation of Liability are not acceptable, return unopened package immediately to place of purchase for a refund of the purchase price paid. Otherwise, use by the buyer of this product or any other user constitutes acceptance of the terms under Warranty Disclaimer and Inherent Risks of Use and Limitation of Liability.

LIMITED WARRANTY

Koch Agronomic Services, LLC ("KAS")'s exclusive warranty for this product is that it (1) conforms to the chemical description on the label and (2) is reasonably fit for the purposes expressly stated on the label when used in strict accordance with the instructions included in this label, subject to the warranty limitations set forth herein.

WARRANTY LIMITATION/LIMITATION OF LIABILITY

It is impossible to eliminate all risks associated with use of this product. Crop damage or personal injury, lack of performance, or other unintended consequences may result because of such factors as use of product contrary to label instructions (including conditions noted on the label, unfavorable temperatures, soil conditions etc.), abnormal conditions (such as excess rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of KAS.

All such risks are expressly assumed by the buyer of this product, and individual results from using this product may vary. KAS shall not be liable for losses or damages resulting from handling or use of this product unless KAS is promptly notified of such loss or damage in writing.

In no case shall KAS be liable for consequential, incidental, special or exemplary damages or losses. The exclusive remedy for all losses or damages resulting from this product or use of this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at KAS's election, one of the following:

1. Refund of purchase price paid by buyer or,
2. Replacement of amount of product used.

No prior dealings between KAS and the buyer/user can change this exclusive remedy. The terms of the Warranty, Warranty Disclaimer, and Warranty Limitation/Limitation of Liability cannot be varied by any written or verbal statements or agreements. No employee, distributor or sales agent of KAS, or any other seller or user is authorized to vary or exceed the terms of the Warranty, Warranty Disclaimer or Warranty Limitation/Limitation of Liability in any manner.

WARRANTY DISCLAIMER

KAS DOES NOT GUARANTEE THAT USE OF THIS PRODUCT WILL YIELD ANY SPECIFIC RESULTS. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY IS DISCLAIMED AND NOT MADE.

FIRST AID MEASURES

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin contact: Immediately flush skin with plenty of water. Get medical attention if irritation develops and persists.
Inhalation: Move person to fresh air. If the affected person is not breathing, apply artificial respiration. Get medical attention immediately.
Ingestion: Rinse mouth thoroughly. Drink 1 or 2 glasses of water. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention.

FIRE FIGHTING

Suitable extinguishing media: Water fog. Water spray. Carbon dioxide (CO_2) Foam.
Extinguishing media which must not be used for safety reasons:
Do not use water jet as an extinguisher, as this will spread the fire. Dispose of containers according to federal, state, and local regulations.

HMIS® Ratings	
Health	2*
Flammability	1
Physical Hazard	0
Personal Protection	X

*Chronic Hazard

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AGRONOMIC SERVICES

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