

## Nitrification Inhibitor, Fertilizer Additive

CENTURO® is a nitrification inhibitor. It is used to delay nitrification of ammoniacal and urea nitrogen fertilizer by inhibiting the oxidation of ammoniacal nitrogen to nitrate nitrogen.

CENTURO can be used for canola, corn, cotton, rice, small grains, sorghum, and wheat where a nitrification inhibitor is needed and the fertilizer nitrogen is placed on or below the soil surface.

# Active Ingredients:

Pronitridine (CAS RN 1373256-33-7)	14%
Other ingredients:	86%
Total:	100%

Contains 1.495 pounds of active ingredient per gallon

# KEEP OUT OF REACH OF CHILDREN CAUTION AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label find someone to explain it to you in detail.)

# **Precautionary Statements**

### Hazards to Humans and Domestic Animals:

Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing.

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

### Produced For-

Koch Agronomic Services, LLC 4111 E. 37th St. N. Wichita, KS 67220 (866) 863-5550 kochmsds@kochind.com

## Personal Protective Equipment:

Mixers, loaders, applicators, and other handlers must wear: long-sleeved shirt and long pants; shoes and socks; and waterproof gloves.

NOTE: This product is applied with fertilizer. Follow all additional restrictions and precautions, including protective equipment requirements, relevant to the fertilizer product being used.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### FIRST AID

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If swallowed:	Call a poison control center or doctor immediately for treatment advice.     Have a person sip a glass of water if able to swallow.     Do not induce vomiting unless told to by a poison control center or doctor.     Do not give anything by mouth to an unconscious person.	
If on skin or clothing:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.	
If in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.     Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.     Call a poison control center or doctor for treatment advice.	
General Information: Have the product label with you when calling a poison control center or doctor or going for treatment. For emergency information, call the Poison Control Center at 1-800-222-1222. For general information on product use, etc. call the National Pesticides Information Center at 1-800-858-7378.		
NOTE TO PHYSICIAN		
Treat symptoma	tically.	

## **Environmental Hazards:**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate.

A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of nitrates and fertilizer from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours. Sound erosion control practices will reduce this product's potential to reach aquatic sediment via runoff.

# **Physical or Chemical Hazards:**

Do not use with or store near any oxidizing or reducing agents.

# **User Safety Recommendations**

Applicators, mixers, and/or loaders should wash hands before eating, chewing gum, using tobacco, or using the toilet. Remove clothing/PPE immediately if pesticide gets inside, wash thoroughly and put on clean clothes.

## Product Information

CENTURO nitrogen stabilizer is a water soluble liquid product that may be used with anhydrous ammonia, aqua ammonia, urea ammonium nitrate, and other liquid ammoniacal or urea nitrogen fertilizers and liquid manure.

CENTURO can be used for canola, corn, cotton, rice, small grains, sorghum, and wheat where a nitrification inhibitor is needed and fertilizer nitrogen is placed on or below the soil surface.

## **Directions for Use**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

## Please refer to Agricultural Use Requirements below

Read all Directions for Use carefully before application. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

# **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that were not covered by the Worker Protection Standard.

Do not allow workers to enter treated areas during the restricted entry interval (REI) of 24 hours. If the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

# **Mixing Directions**

Compatibility Testing: CENTURO is compatible with most liquid nitrogen fertilizer products and washing or rinsing equipment between uses is usually not necessary. However, it is recommended that compatibility testing be performed before equipment use is changed from one material to another. Avoid contact with strong oxidizing agents and acids.

Anhydrous Ammonia: CENTURO is soluble in liquid anhydrous ammonia. CENTURO may be pumped into the anhydrous ammonia tank through the liquid fill valve before, during, or after loading. Pumping and metering systems are necessary for the injection of CENTURO into the tank. The ammonia containing CENTURO is then applied to cropland using conventional ammonia application equipment. CENTURO can also be applied through downstream co-injection systems that place the CENTURO in close proximity to the anhydrous ammonia.

Liquid Fertilizers: CENTURO may be mixed with liquid fertilizers such as aqua ammonia, urea ammonium nitrate solution, or other liquid ammoniacal or urea nitrogen fertilizer. CENTURO can be added to liquid fertilizers in storage tanks, nurse tanks, or implement tanks with initial agitation to ensure complete mixing.

Tank Mixing: Check the physical compatibility of tank mixtures as indicated below. It is the pesticide user's responsibility to ensure that all tank-mixed pesticide products are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Once the CENTURO is mixed into the fertilizer, continuous agitation should not be necessary. However, depending on the compatibility and solubility of other products, these mixtures may require constant agitation during both mixing and application to ensure uniformity of the spray mixture. Read and carefully follow all applicable directions including dosage rates, restrictions, and precautions for the specified crops on labeling for the other products used in combination with CENTURO.

When making a tank mix, any product with a pH less than 5 should be added to the mixture first. The mixture should be adjusted to a pH greater than 5, with a base before the CENTURO is added.

Tank Mixing Compatibility Test: To test the compatibility of CENTURO with crop protection chemicals or biologicals, add proportionate amounts of each ingredient to a small jar, cap, shake, and let stand for one day. Formation of precipitates of layers that do not readily re-disperse indicates an incompatible mixture and should not be used.

### **Use Restrictions:**

- May be applied as surface broadcast prior to crop emergence
- Apply as a band treatment on or below the soil surface after crop emergence
- Apply only pre-plant, at-plant, or very early season side dress
- Do not apply directly to plant foliage
- Do not apply through any type of irrigation system
- Do not apply more than 3 gallons of CENTURO per acre per year
- Make only 1 post-plant application per year

## APPLICATION RATES: WHEAT, CORN, SORGHUM, SMALL GRAINS, COTTON, CANOLA, AND RICE

Subsurface Band Application (Preplant, Preemergence, At-plant, or Very Early Season Side Dress)

CENTURO may also be mixed directly with ammonia or UAN per the table below.

Fertilizer	Gallons CENTURO per ton Fertilizer
UAN	2.5
Anhydrous Ammonia	5
Aqua Ammonia or Liquid Urea Solutions	1.5

# **Application with Liquid Manure**

Use CENTURO at 1-2 gallons per acre. Apply directly to liquid manure for coverage area.

**Handlers of Agricultural Pesticides:** This product should only be used by those who have been trained to safely handle and apply fertilizer products. Wear appropriate personal protective equipment. Follow any additional precautions and restrictions required for the fertilizer product used.

## Storage and Disposal

Do not contaminate water, food, or feed by storage and disposal.

Storage: Store in a secured place out of reach of children and animals and away from other chemicals.

Always store pesticides in the original container. If a leaky container must be contained within another, mark the outer container to identify the contents. Storage areas must be locked and secure from vandalism, with precautionary signs posted. The storage area must be dry, well-lit, and well ventilated. Keep pesticide storage areas clean. Clean up any spills promptly. Store pesticides away from food, pet food, feed, seed, fertilizers and veterinary supplies. Protect pesticide containers from extreme heat and cold. Store herbicides, insecticides and fungicides in separate areas within the storage unit. Place liquid formulations on lower shelves and dry formulations above. Maintaining a spill kit and fire extinguisher on hand and having emergency phone numbers posted will allow you to be prepared for emergencies. If spill cleanup PPE is stored nearby, but outside the pesticide storage area, it will be accessible when needed.

**Pesticide Disposal:** To avoid waste, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry). Wastes resulting from the use of this product must be disposed of at an approved waste disposal facility or on the treatment site.

## **Container Handling:**

Bulk: CENTURO supplied in bulk should not be transferred to containers. It should only be transferred to fertilizer storage tanks or equipment specifically designed for bulk fertilizer application. CENTURO is compatible with most liquid fertilizer products and washing or rinsing equipment between uses is usually not necessary. However, it is recommended that compatibility testing be performed before equipment use is changed from one material to another. If needed, tanks and equipment may be cleaned with water. Collect all rinsate from such cleaning and either apply as weak CENTURO as otherwise directed, or fully characterize and dispose according to federal, state, and local regulations using an appropriately licensed waste hauler.

For plastic containers less than or equal to 5 gallons: Nonrefillable container. Do not reuse or refill this container unless the directions for use allow a different (concentrated) product to be diluted in the container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Collect all rinsate and either use in UAN as directed or store rinsate for later use in UAN or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

For plastic containers greater than 5 gallons: Nonrefillable container. Do not reuse or refill this container unless the directions for use allow a different (concentrated) product to be diluted in the container. Triple rinse container promptly after emptying. Triple Rinse as follows: Empty remaining contents into application equipment or a mix tank. Fill the container ¼ full with water, being sure to spray container walls while filling. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities. Collect all rinsate from such cleaning and either apply as weak CENTURO as otherwise directed, or fully characterize and dispose according to federal, state, and local regulations using an appropriately licensed waste hauler.

For plastic containers greater than 5 gallons: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or tank mix. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available, or puncture and dispose of in sanitary landfill, or by incineration, or by other procedures allowed by state or local authorities.

#### TERMS AND CONDITIONS OF USE

If the terms of the following Limited Warranty, Warranty Limitation/Limitation of Liability and Warranty Disclaimer 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 person constitutes acceptance of the terms under Warranty Disclaimer and Inherent Risks of Use and Limitation of Liability.

#### LIMITED WARRANTY

To the extent consistent with applicable law, 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. Except as warranted on this label, all such risks are expressly assumed by the buyer of this product, and individual results from using this product may vary. To the extent consistent with applicable law, 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 Limited Warranty, Warranty Disclaimer or Warranty Limitation/Limitation of Liability in any manner.

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