# **Specimen Label**



**Dow AgroSciences** 

# Instinct



# NITROGEN STABILIZER

<sup>®</sup>Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

# Use to delay nitrification of ammoniacal and urea nitrogen fertilizer compositions in the soil by controlling the nitrification process.

Active Inaredient:

nitrapyrin: 2-chloro-6-(trichloromethyl)

pyridine	
Other Ingredients	
Total	100.00%

Contains petroleum distillates

Contains 1.85 lb of active ingredients per gallon.

#### **Precautionary Statements**

### Hazards to Humans and Domestic Animals

EPA Reg. No. 62719-583

Note to Physician: May pose an aspiration pneumonia hazard. Contains petroleum distillate.

## **Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are barrier laminate and viton  $\geq$ 14 mils. If you want more options, follow the instructions for category G on an EPA chemical resistance category selection chart.

- Mixers, loaders, applicators and other handlers must wear:
- · Coveralls worn over short-sleeved shirt and short pants
- Chemical-resistant gloves
- Chemical-resistant footwear plus socks
- When mixing and loading, or cleaning equipment, wear a chemicalresistant apron

Follow 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.

# User Safety Recommendations

- Users should:
- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### First Aid

**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 eye. Call a poison control center or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably

# First Aid (Cont.)

mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

**Note:** Contains petroleum distillate – vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

#### **Environmental Hazards**

This pesticide is toxic to oysters/shrimp. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not apply directly to water, 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 washwaters or rinsate.

This product may contaminate water through runoff. This product has a high potential for runoff for several weeks after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product.

A level well-maintained vegetative buffer strip between areas to which this product is applied and surface water such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

## **Directions for Use**

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

Read all Directions for Use carefully before applying.

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, restricted-entry interval, and notification to workers (as applicable). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

**Exception:** 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.

For early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, wear:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socksProtective eyewear

# Storage and Disposal

Do not contaminate water, food, or feed by storage and disposal. **Pesticide Storage:** Do not freeze.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

#### Nonrefillable containers 5 gallons or less:

**Container Handling:** Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure 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 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down

# Storage and Disposal (Cont.)

over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### Refillable containers 5 gallons or larger:

**Container Handling:** 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 a mix tank. 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 a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### Nonrefillable containers 5 gallons or larger:

**Container Handling:** Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### **Product Information**

Instinct<sup>®</sup> nitrogen stabilizer is a water-based microencapsulated formulation of nitrapyrin that may be used in the application of aqua ammonia, other liquid ammoniacal or urea nitrogen fertilizer compositions such as 28%, 30% or 32% UAN. Instinct is not a substitute for fertilizer.

Instinct may be mixed with liquid fertilizer, insecticides, herbicides and/or water and applied as a preplant incorporated or preemergence (pre to corn), or postplant, application. Incorporation may occur at any time up to 10 days after application and may be either by mechanical means or by moisture (rainfall or overhead irrigation). For moisture incorporation, a minimum of 0.5 inch of moisture is necessary. If 0.5 inch of moisture does not occur within the 10-day window, incorporate mechanically with light tillage.

The best manure management practice is to inject liquid manure, but surface applications are also permitted.

#### **Precautions and Restrictions**

Instinct is no more corrosive to standard liquid fertilizer equipment than liquid fertilizer alone.

**Chemigation:** Do not apply this product through any type of irrigation system.

#### **Mixing Directions**

#### **Liquid Fertilizers**

Instinct may be mixed with liquid fertilizers, such as aqua ammonia or other liquid ammoniacal or urea nitrogen fertilizers. Instinct can be added to urea ammonium nitrate liquid fertilizer without a compatability agent, although when mixing Instinct with fertilizer plus herbicides or insecticides, a jar test may indicate that a compatability agent is needed.

There are two methods which may be used to create a stable emulsion with Instinct plus a compatability agent in liquid fertilizer:

**Premix Method**: The compatibility agent and Instinct may be mixed together in a separate container and then added to the liquid fertilizer. Continuously agitate as the mixture is added to the fertilizer.

**Sequential Method**: The compatibility agent may be added to the fertilizer and thoroughly agitated. While the agitation continues, the required amount of Instinct may be added to the tank.

Most phosphate ester types of compatibility agents are suitable for use in these mixtures. Follow the label directions for the compatibility agent to determine rates and any use precautions.

#### Liquid Manure

Use Instinct at the rate of 35 to 70 fl oz per acre. Use the 70 fl oz per acre rate for all fall applications with animal manure. To ensure uniform mixing, Instinct may need to be premixed with a phosphate ester compatibility agent at a ratio of 1 part phosphate ester compatibility agent to 8 parts Instinct before adding Instinct to the liquid animal manure.

#### Granular Ammonium and Urea

Instinct may be impregnated on urea and most dry ammoniacal fertilizers or fertilizer blends containing ammoniacal fertilizers. Uniform application in the field is necessary to insure optimum results.

Various equipment can be used to impregnate Instinct onto dry fertilizers, including vertical and horizontal mixers. Once impregnated, fertilizer may be applied with either spinner, airflow, or other suitable equipment. Apply Instinct at a rate of 35 fl oz per acre. Use a minimum of 100 lb of dry fertilizer per acre. With lower rates of fertilizer (higher concentrations of Instinct), the fertilizer may not readily absorb all of the liquid. For a suitable free-flowing mixture, add a drying agent, such as Hi-Sil 233, MP-79, RVM or LVM clay granules, or pelletized limestone to the mixture. Use 1 lb of drying agent per pint of Instinct unless experience indicates a different amount works well. Do not apply more than 1 lb ai nitrapyrin per acre per year.

Immediately apply bulk fertilizers impregnated with Instinct. Do not store the impregnated fertilizer. All individual state regulations, including those related to dry bulk blending registration, labeling and application, are the responsibility of the individual and/or company selling mixtures of Instinct and fertilizer.

#### Do not mix seed with dry fertilizers impregnated with Instinct. Tank Mixing

Instinct may also be applied in tank mixtures with preplant incorporated or preemergence herbicides or insecticides registered for use on corn. The tank mixes may be in water or in most urea-ammonium nitrate solutions, N-P-K solutions, slurries, or suspensions. Check the physical compatibility of these mixtures as indicated below. Maintain 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 on labeling for the other products used in combination with Instinct.

For best results, add the herbicide(s) to the tank after Instinct and the compatibility agent (if used) have been thoroughly mixed. Add wettable powders or flowables before emulsifiable concentrates. Continuously agitate during the mixing cycle.

**Tank Mix Compatibility Test:** To test the compatibility of Instinct with liquid fertilizers and/or herbicide or insecticide mixes, add proportionate amounts of each ingredient to a small jar, cap, shake, and let stand for 15 minutes. Formation of precipitates or layers that do not readily redisperse indicates an incompatible mixture and should not be used.

#### Corn

#### **Preplant, Preemergence, At-Plant Row or Band Injection Application** Use Instinct at the rate of 35 fl oz per acre.

**Liquid Manure:** Use Instinct at the rate of 70 fl oz per acre when fall applied with liquid manure or a minimum of 35 fl oz per acre when applied with liquid manure in the spring. Applying Instinct with liquid manure in the spring is limited to a preplant application only.

#### **Restrictions:**

- Do not apply more than a total of 70 fl oz of Instinct (1 lb ai nitrapyrin) per acre per year on corn.
- Replant restriction: All crops (except for leafy vegetables and root and tuber crops) may be planted 30 days or more after last application. Leafy vegetable crops are not to be planted less than 120 days after last application. Root and tuber crops are not to be planted less than one year after last application.

An enclosed cab must be used for groundboom application to corn.

#### Postplant (Side Dress) Application

Apply 18 to 35 fl oz of Instinct per acre after corn emergence. The application may be injected, dribbled, or applied as a band with sidedress liquid fertilizer. Instinct may also be impregnated onto dry fertilizer and applied.

#### **Restrictions:**

- Any postplant application of Instinct must be applied prior to V6 stage of growth.
- Do not apply more than a total of 70 fl oz of Instinct (1 lb ai nitrapyrin) per acre per year on corn.

• **Replant restriction:** Crops listed on this label, other cereals, oilseed crops (including soybeans), and leafy vegetables, may be rotated 120 days from the last application. All other crops are not to be rotated in less than one year after the last application.

#### **Spring Wheat or Winter Wheat**

#### Preplant, Preemergence, At-Plant Row or Band Injection Application

Instinct may be mixed with liquid fertilizer, liquid manure, urea, insecticides, herbicides and/or water and applied as a preplant incorporated or preemergence (pre to wheat emergence). Instinct may be used at the rate of 35 to 70 fl oz per acre when fall applied or a minimum of 35 fl oz per acre when applied in the spring.

#### **Restrictions:**

- Do not apply more than a total of 70 fl oz of Instinct (1 lb ai nitrapyrin) per acre per year on wheat.
- Replant restriction: All crops (except for leafy vegetables and root and tuber crops) may be planted 30 days or more after last application. Leafy vegetable crops are not to be planted less than 120 days after last application. Root and tuber crops are not to be planted less than one year after last application.

#### Postplant Application

Instinct may be applied at 35 fl oz per acre to actively growing wheat from emergence and up to 1<sup>st</sup> detectable joint (Feekes 6 or Zadock 31 growth stage). The Instinct application may be broadcast, injected, dribbled, or applied as a band with sidedress liquid fertilizers. Instinct may also be impregnated onto dry fertilizer and applied.

#### **Restrictions:**

- Any postplant application of Instinct must be applied prior to 1<sup>st</sup> detectable joint (Feekes 6 or Zadock 31 growth stage).
- Do not apply more than a total of 70 fl oz of Instinct (1 lb ai nitrapyrin) per acre per year on wheat.
- Replant restriction: All crops (except for leafy vegetables and root and tuber crops) may be planted 30 days or more after last application. Leafy vegetable crops are not to be planted less than 120 days after last application. Root and tuber crops are not to be planted less than one year after last application.

#### Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

#### Warranty Disclaimer

Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

## Inherent Risks of Use

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

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

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#### **Revisions:**

- 1. Addition of supplemental label 370-014 "Preplant, Preemergence, At-Plant Row or Band Injection Application in Spring Wheat or Winter Wheat"
- 2. Updated trademarking