

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

OCT 12 1995

Mr. Larry E. Hammond
DowElanco
9330 Zionsville Rd.
Indianapolis, IN 46268-1054

Dear Mr. Hammond:

SUBJECT: Label Amendments
DowElanco N-Serve 24
EPA Registration No. 62719-20

- I. Your Application Dated July 10, 1995, to Add Side Dress and Split Application for Corn, Delete the Word "Combustible", and Add Instructions for Use With Liquid Manure; and
- II. Your Application Dated September 18, 1995 to Change the Signal Word from "Warning" to "Caution" and Revise the Precautionary Labeling.

I. The labeling referred to above, submitted on July 10, 1995, in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable, provided that you:

1. Add the statement "Contains Petroleum Distillates" immediately below the ingredient statement as a footnote to the inert ingredients.
2. Submit one final printed copy of the label before releasing the product for shipment.

A stamped copy is enclosed for your records.

II. The labeling referred to above, submitted on September 18, 1995, in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is not acceptable for the reasons given below:

RD:STANTON:PM Team 23:Rm. 235:CM-2:305-5218:Disk #1:S494956.LET

CONCURRENCES

SYMBOL ▶	7505C							
SURNAME ▶	S. Stanton							
DATE ▶	Oct 5, 1995							

1. Based on the acute toxicity categories specified in your June 24, 1993 Worker Protection Standard (WPS) submission for N-Serve 24, it appears that this product may be overlabeled and that the signal word and precautionary labeling should be revised, as you have proposed. However, our records do not contain documentation sufficient to confirm the toxicity categories specified in your WPS submission. Before we can approve the proposed changes in signal word and precautionary labeling, you must submit or cite studies to support the claim that the subject product is in toxicity categories III or IV for acute oral, dermal, and inhalation toxicity, as well as primary eye and skin irritation.

Sincerely yours,

Joanne I. Miller
Product Manager (23)
Fungicide-Herbicide Branch
Registration Division (7505C)

Enclosure

N-Serve* 24

EPA Reg. No. 62719-20

Proposed Label Amendment: Label text based on EPA-accepted copy dated December 2, 1994.

Proposed Label Amendments:

1. Added side dress application to corn.
2. Reformatted section for split application to corn
3. Added instructions for use of N-Serve with liquid manure.

Editor's note: Added text is underlined and deleted text shown by strike-through.]

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**ACCEPTED
with COMMENTS
In EPA Letter Dated**

OCT 12 1995

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

62719-20

(Drum Label)

(logo) DowElanco

N-Serve* 24

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

Active Ingredients:

nitrapyrin: 2-chloro-6-(trichloromethyl) pyridine	22.2%
related chlorinated pyridines	2.5%
Inert Ingredients	75.3%
Total	100.0%

Contains 2 pounds of active ingredients per gallon.

Precautionary Statements

Hazards to Humans and Domestic Animals**Keep Out of Reach of Children****WARNING****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.)

Harmful If Swallowed • Harmful If Absorbed Through Skin • Causes Eye Irritation • The Active Ingredient In This Product May Cause Skin Sensitization Reactions In Certain Individuals

Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category G on an EPA chemical resistance category selections chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as Barrier Laminate or Viton
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, 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 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 swallowed: Do not induce vomiting. Contains aromatic petroleum solvent. Call a physician or Poison Control Center.

If in eyes: Flush with plenty of water. Get medical attention if irritation persists.

If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

If inhaled: Remove to fresh air if effects occur. Get medical attention.

Environmental Hazards

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 by cleaning of equipment or disposal of wastes.

Physical or Chemical Hazards

Combustible—Do not use, pour, spill or store near heat or open flame. Do not cut or weld container.

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 (PPE), and restricted entry interval. 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.

PPE required for early entry to 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, is:

- Coveralls
- Chemical-resistant gloves such as Barrier Laminate or Viton
- Shoes plus socks
- Protective eyewear

Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

Storage: Store above 18°F to keep product in solution. Below 14°F, crystals may form and settle to the bottom. To redissolve the crystals, allow the contents to warm up to about 70°F and to stand for several days at that temperature. Once the crystals have dissolved, a gentle rolling of the container will ensure a uniform mixture of the contents.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance.

Container Disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

General Information

N-Serve® 24 nitrogen stabilizer is an oil-soluble product that may be used with anhydrous ammonia, dry ammonium and urea fertilizers.

When combined with a compatibility agent, N-Serve 24 may be used in the application of aqua ammonia, other liquid ammoniacal or urea nitrogen fertilizer compositions. When liquid or dry ammonium or urea fertilizers or animal wastes are surface applied, N-Serve 24 may be mixed with water and a compatibility agent and applied during the incorporation operation.

General Use Precautions

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

N-Serve 24 is corrosive to aluminum components which may affect the operation of pumping, mixing and application equipment. Solutions of N-Serve 24 and anhydrous ammonia may cause corrosion of submerged aluminum components. These parts should be replaced with mild steel or stainless steel materials of construction. Side mount or end mount liquid level float gauges containing aluminum should be replaced with stainless and mild steel gauges. To minimize corrosion of equipment and for maximum effectiveness, do not store anhydrous ammonia containing N-Serve 24 longer than three weeks.

Acme fitting gaskets should be replaced as needed with standard Buna-N or Buna-S gaskets. More resistant gasket materials such as Teflon may also be used.

Mixing Directions

Anhydrous Ammonia

N-Serve 24, a product that is soluble in liquid anhydrous ammonia, may be pumped into the anhydrous tank through the liquid fill valve before, during or after loading. Pumping and metering systems are necessary for the injection of N-Serve 24 into the tank. The ammonia containing N-Serve 24 is then applied to cropland using conventional ammonia application equipment. Tank mixing with anhydrous ammonia is the preferred method of application; however, N-Serve 24 may also be applied through downstream injection systems.

Liquid Fertilizers

N-Serve 24 may be mixed with liquid fertilizers such as aqua ammonia or other liquid ammoniacal or urea nitrogen fertilizer compositions if a compatibility agent† is used.

(†Registered for agricultural use where required.)

There are two methods which may be used to create a stable emulsion with N-Serve 24 in liquid fertilizer:

Pre-Mix Method: The compatibility agent and N-Serve 24 may be mixed together in a separate container and then added to the liquid fertilizer. Agitation should be continuous 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 N-Serve 24 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.

Application with Liquid Manure

Use N-Serve 24 at the rate of 1 to 2 quarts per acre. The 2 quart per acre rate is recommended for all fall applications with animal manure. N-Serve 24 and a phosphate ester compatibility agent should be premixed at a ratio of 1 part phosphate ester compatibility agent to 8 parts N-Serve 24 before adding N-Serve to the liquid animal manure.

Granular Ammonium and Urea

N-Serve 24 may be impregnated on most dry ammoniacal fertilizers or fertilizer blends containing ammoniacal fertilizers. Uniform application in the field and immediate incorporation are necessary to insure optimum results.

For impregnating N-Serve 24 on dry fertilizers, use a closed rotary drum mixer equipped with suitable spraying equipment. The spray nozzle should be positioned inside the mixer to provide uniform spray coverage of the tumbling fertilizer. Check the crop section of this label to determine the per acre use rate of N-Serve 24. The maximum amount of N-Serve 24 to be added is one quart per 100 pounds of nitrogen fertilizer and the minimum amount is one quart per 500 pounds of nitrogen fertilizer. At the higher concentrations of N-Serve 24, the fertilizer may not readily absorb all of the liquid. For a suitable free-flowing mixture, an absorptive powder such as Micro-CelE should be added separately and uniformly to the fertilizer blend following addition of N-Serve 24.

Bulk fertilizers impregnated with N-Serve 24 should be applied immediately, not stored. All bulk containers should be tightly covered while the products are being transported and applied to reduce the chance of loss of N-Serve 24 via volatilization. All fertilizers impregnated with N-Serve 24 should be incorporated immediately after application for optimal performance.

All individual state regulations including those related to flammable liquid handling and to dry bulk blending registration, labeling and application are the responsibility of the individual and/or company selling N-Serve 24 on fertilizer mixtures.

Do not use N-Serve 24 with dry fertilizers containing nitrate such as ammonium nitrate, potassium nitrate or calcium nitrate. Do not mix seed with dry fertilizers impregnated with N-Serve 24.

Tank Mixing Directions

N-Serve 24 may also be applied in tank mixtures with several preplant incorporated herbicides registered for use on corn and sorghum. The tank mixes may be in water or in most urea-ammonium nitrate solutions, and 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 for the specified crops on labeling for the other products used in combination with N-Serve 24.

The recommended mixing sequence is to add the herbicide(s) to the tank after the N-Serve 24 and compatibility agent have been thoroughly mixed. Wettable powders or flowables should be added before emulsifiable concentrates. Agitation should be continuous during the mixing cycle.

Note: To test the compatibility of N-Serve 24 with liquid fertilizers and/or herbicide 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 re-disperse indicates an incompatible mixture and should not be used.

Use and Dosage Recommendations

N-Serve 24 must be injected or incorporated in a zone or band in the soil with the fertilizer at a minimum depth of 2 to 4 inches during or immediately after application.

Approved Crops

Corn, Sorghum, Wheat**Preplant or At-Plant Row or Band Injection Application**

Use N-Serve 24 at the rate of 1 quart per acre.

Preplant or At-Plant Broadcast Application

Use N-Serve 24 at the rate of 1 to 2 quarts per acre. The higher rate is preferred when fall applications are made to spring planted crops.

Postplant (Side Dress) Application in Corn

Use N-Serve 24 at the rate of 1 quart per acre any time after crop emergence, up to 30 days post plant.

Split Application on Corn

In addition to a preplant or at-plant application, a second application may be made postplant at the rate of 1/2 to 1 quart of N-Serve 24 per acre. For high yield production, use the 1 quart per acre rate. The total amount of N-Serve 24 applied in a split application program involving a preplant or at-plant treatment followed by a postplant treatment must not exceed 2 quarts per acre per year. A second application may be made postplant following a preplant or at-plant application. Use 1/2 to 1 quart per acre. The 1 quart rate is recommended where nitrogen fertilization is geared to high yield production.

Restrictions

Do not apply more than 2 quarts of N-Serve 24 per acre per year on corn, sorghum, or wheat. Make only one postplant application per year. Postplant applications may only be made up to 30 days postplant on corn. Crops listed on this label may be rotated in less than one year from the last application. All other crops are not to be rotated in less than one year from the last application.

Warranty Disclaimer

DowElanco 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. DowElanco 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 DowElanco or the seller. All such risks shall be assumed by buyer.

Limitation of Remedies

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at DowElanco's election, one of the following:

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

DowElanco shall not be liable for losses or damages resulting from handling or use of this product unless DowElanco is promptly notified of such loss or damage in writing. In no case shall DowElanco be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of DowElanco or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

In case of emergency endangering health or the environment involving this product, call collect 517-636-4400.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-20

EPA Est. 464-CA-1

Lot _____

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DowElanco • Indianapolis, IN 46268, U.S.A.

Nitrogen Stabilizer

Net Contents 30 gal

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EPA-Accepted __/__/__