



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

March 30, 2023

Kathryn Rosario
Regulatory Assurance Specialist for,
H&S Chemicals Division c/o Arxada, LLC
Electronic Transmittal: [Kathryn.Rosario@Arxada.com]

Subject: Label and CSF Notification per PRN 98-10 – To revise the Basic CSF, Alt. 1 CSF
and Product Labeling
Product Name: HS-420 (10%) Water Treatment Microbicide
EPA Registration Number: 47371-146
Received Date: October 13, 2022
Action Case Number: 00401104

Dear Ms. Rosario:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10. The Antimicrobials Division (AD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10.

The label submitted with the application has been stamped “Notification” and will be placed in our records.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Assurance.

The CSFs submitted with your application have been stamped “Notification” and placed in our files.

Please note that the record for this product currently contains the following CSFs:

- Basic CSF dated 12/15/2021
- Alternate CSF 1 dated 12/15/2021

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Any CSFs other than those listed above are superseded/no longer valid.

If you have any questions, you may contact Karen M. Leavy at (703)-308-6237 or via email at Leavy.Karen@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "Karen M. Leavy Esq,". The signature is written in a cursive style with a large initial 'K' and a trailing flourish.

Tara Flint
Acting Product Manager 31
Regulatory Management Branch I
Antimicrobials Division (7510P)
Office of Pesticide Programs

NOTIFICATION

47371-146

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

03/30/2023

**HS-420 (10%)
WATER TREATMENT MICROBICIDE**

{Note to Reviewer: Language in [] is considered optional or interchangeable.}

- Water Treatment Microbicide
- For Building and Industrial Cooling Towers and Oil Field Water Flood¹ or Salt Water Disposal Systems, Fracturing Fluids¹, Oil Field Injection and Waste Water¹, Oil and Gas Production and Transmission¹, Gas Storage Wells and Systems¹, Pipeline Pigging and Scraping Operations¹, Drilling¹, Completion and Workover Fluids Systems¹, Packer Fluids and Hydrotesting¹

Active Ingredient:

Didecyl dimethyl ammonium chloride..... 10%
 Inert Ingredients:..... 90%
 Total: 100%

KEEP OUT OF REACH OF CHILDREN

DANGER

See (side) (back) (left) (right) panel for Precautionary Statements

EPA Reg. No. 47371-146
 EPA Est. No. (as indicated on container)
 Net Contents (as indicated on container)
 [Country of origin (insert country)]
 [Manufactured in (insert country)]
 [Barcode]

[Note to Reviewer: In accordance with 40 CFR 156.68(d), all first aid statements, as prescribed, will appear on the front panel of the product label.]

FIRST AID:

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.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 minutes.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

IN CASE OF EMERGENCY CALL: 1-800-654-6911

H&S CHEMICALS DIVISION
 c/o ARXADA, LLC
 412 Mount Kemble Avenue
 Suite 200S
 Morristown, NJ 07960

HS-420 (10%) Water Treatment Microbicide
 EPA Reg. No. 47371-146
 EPA Submission 2022-10-13

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. Corrosive: Causes irreversible eye damage and skin burns. Do not get in eyes, on skin or on clothing. Harmful if swallowed. Wear protective eyewear (goggles or face shield) protective clothing and rubber gloves when handling. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

ENVIRONMENTAL HAZARDS

(Note to reviewer: For containers 5 gallons or larger, the following Environmental Hazards will be added:)

This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

PHYSICAL AND CHEMICAL HAZARDS

This formula is cationic. Do not mix with soap or anionic materials. Do not use or store near heat or open flame.

[(This product) (**Brand name**) will control algae and bacterial slimes found in re-circulating cooling water towers [or oil field water flood¹]. (This product) (**Brand name**) helps clean and loosen slime debris from cooling and flooding system surfaces. When used in slug doses, no other microbiocide is required. (This product) (**Brand name**) will control sulfate reducing bacteria [SRB] and slime forming bacteria in oil well drilling¹, oil field water floods¹, salt water disposal systems and oil and gas productions¹ and transmission pipelines and systems¹.]

[(This product) (**brand name**) is economical to use because it is concentrated.]

DIRECTIONS FOR USE

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

RE-CIRCULATING COOLING TOWER WATERS

To control algae and bacterial slimes, use as directed. For best results, slug feed. The frequency of addition of microbiocide needed depends on many factors. To optimize your use, follow this procedure:

1. Initially add 30 fluid ounces of (this product) (**brand name**) per 1000 gallons of water in the system to be treated (20 ppm active quaternary). Should the above dosage not give satisfactory results, use 45 fluid ounces per 1000 gallons of system water. Repeat the initial dose every seven days or increase the frequency if needed.
2. When the above treatment level is successful, use 25 to 30 fluid ounces of (this product) (**brand name**) per 1000 gallons of system water to maximize efficiency. Repeat weekly as needed. Should slime develop again, go back to initial dosage.

Add (this product) (**brand name**) to a point in the system where it will be uniformly mixed.

Cooling tower waters that are inherently low in algae growth and bacteria count may be adequately controlled by the lower range of these dosages; slug fed every seven days. Dilute the appropriate amount of this product in 1 or 2 gallons of water, then add to the system water in the tower. Should tower system water be heavily fouled, a pre-cleaning is required.

Oil Field Water Flood¹ or Salt Water Disposal Systems and Fracturing Fluids¹: [Do not apply in Marine or Estuarine Oil Fields!]

For the control of slime forming and sulfate reducing bacteria in oil field water flood or salt water disposal systems, add 5-10 ppm [active] (this product) (**brand name**) [6- 1/2 - 13 gallons per 3000 barrels² of water] continuously. Levels for effective control will vary depending on conditions at the site.

Product addition must be made with a metering pump. This product must be applied where it will dispense most rapidly and uniformly to the desired area of treatment. Product must be slug fed then fed continuously or on an intermittent basis depending on the degree of system fouling.

Heavily fouled systems must be precleaned

Slug: Apply 6 1/2 - 26 gallons per 3000 barrels² [5-20 ppm ai] of water for 4-8 hours per day until desired level of control is achieved. To maintain the system in an acceptable manner, utilize a continuous treatment with the microbiocide or apply intermittent doses.

Intermittent Feed: The frequency of intermittent doses will vary with individual systems. Apply 6 1/2 - 26 gallons per 3000 barrels² [5-20 ppm ai] of water for 4-8 hours per day, one to four times a week as needed to maintain control.

Continuous Feed: Fouled systems must be slug treated to get initial control, followed by continuous treatment to maintain control. Apply 6 1/2 - 26 gallons per 3000 barrels² of water [5-20 ppm ai] continuously.

For treatment of flow back return water [Post Hydraulic Fracturing]: Add 6 1/2 - 26 gallons per 3000 barrels² of water [5-20 ppm active] for 4 to 8 hours per day, one to four times a week as needed to maintain control.

Oil Field Injection and Waste Water¹

This product must be added to the water handling system at a point of uniform mixing such as the area of addition of make up water to the holding tank.

Continuous Injection: Add 39 oz per 1000 gallons of water [30 ppm active] when system is noticeably fouled. When microbial control is evident, add 19.5 oz per 1000 gallons of water [15 ppm active] to maintain control.

Batch Treatment: Add 1.8 gallons per 1000 gallons of water [180 ppm active] over a period of 4 - 6 hours one or more times per week when the system is noticeably fouled. When microbial control is evident, add 0.9 gallon per 1000 gallons of water [90 ppm active] over a period of 4—6 hours one or more times per week.

OR –

For use in oil field and/or petrochemical water subsurface injection systems of secondary and/or tertiary oil recovery systems to reduce the number of anaerobic bacteria, aerobic bacteria, sulfate-reducing bacteria. This product is to be applied at a point in the recovery system where it will be uniformly mixed, such as at the screens, storage tanks and other mixing device locations.

Dosing Conditions: This product should be applied when the system is in jeopardy of being affected. Heavily contaminated systems must be precleaned before treatment is begun.

Equipment Used: Use the injection pump to apply the product.

Slug: When the system is noticeably fouled, add 78 oz [60 ppm active ingredient] of this product per 1000 gallons of water in the system. Apply for 3 to 8 hours daily until control is achieved.

Subsequent Dose: When microbial control is evident, add 39 oz [30 ppm active ingredient] (this product) (**brand name**) per 1000 gallons of water in the system daily or as needed to maintain control.

Intermittent Feed: The frequency of intermittent doses will vary with individual systems.

Initial Dose: When the system is noticeably fouled, add 78 oz [60 ppm active ingredient] (this product) (**brand name**) per 1000 gallons of water in the system. Add for 3 to 8 hours daily until control is achieved.

Maintenance Dose: When control of microbial growth is evident, add 39 oz [30 ppm active ingredient] per 1000 gallons of water in the system daily or as needed to maintain control.

Continuous Feed

Initial Dose: When the system is noticeably fouled, add 19.5 oz [15ppm active] (this product) (**brand name**) per 1000 gallons of water in the system.

Subsequent Dose: Maintain this treatment by starting a continuous feed of 19.5 oz [15 ppm active] (this product) (**brand name**) per 1000 gallons or water daily or as needed to maintain control.

Oil and Gas Production and Transmission Pipelines and Systems¹

For the control of sulfate-reducing bacteria and slime forming bacteria, this product must be added to a gas production or transmission pipeline via direct injection at a point where uniform and maximum distribution will occur.

Gas Storage Wells and Systems¹

Treat individual injection wells (this product) (**brand name**) to produce effective concentration of 8.5 oz – 10 gallons per 100 gallons of fluid (65 — 1000 ppm active) of this product in the drip. Update treatment rate as needed. This product must be diluted by the water present in the formation. Injection may be repeated yearly or as needed to maintain control

Pipeline Pigging and Scraping Operations¹

Add this product to slug of water immediately following the scraper [keep the water volume to a minimum and contained between the scraper and the following pig]. Add an effective concentration to produce 75 - 500 ppm active (97.5 oz – 5 gallons per 1000 gallons) depending on the length of the pipeline and the severity of the biofouling.

Drilling, Completion and Workover Fluids Systems¹

Add (this product) (**brand**) to the fluid system at a point of uniform mixing such as circulating mud tank.

Initial Dose: Add 84.5 oz – 10 gallons per 1000 gallons (65 — 1000 ppm active) (this product) (**brand name**) to a freshly prepared fluid.

Maintenance Dose: Add 84.5 oz – 10 gallons per 1000 gallons (65 — 1000 ppm active) (this product) (**brand name**) to maintain control.

Packer Fluids¹

Add to a packer fluid at a point of uniform mixing such as a circulating holding tank at a rate of 84.5 oz – 10 gallons per 1000 gallons of fluid (65 — 1000 ppm active) to a freshly prepared fluid depending on the severity of contamination. Seal the fresh packer fluid in the wall between the casing and the production tube.

Hydrotesting¹

Treat water used to hydrotest pipelines or vessels at a rate of 84.5 oz – 10 gallons per 1000 gallons of fluid (65 — 1000 ppm active) depending on the water quality and length of time the equipment will remain idle.

This product weighs approximately 8 lbs./gallon [at 20°C].

¹ **Not for Use in California**

² **A barrel size is 42 gallons**

For use in federally inspected meat and poultry plants. Cooling and retort water treatment compound. May be added to water to cook and cool containers of meat and poultry products to prevent staining of containers and to control corrosion and deposit formation on surfaces of processing equipment. Use 5 - 20 ppm active quat.

For use in thermal processing and pasteurizer operations. May be added to pasteurizer cooling water or dairy sweetwater to control slime forming bacteria and deposit formation. Use 5 - 15 ppm active quat.

(Note to reviewer: For Nonrefillable Containers, institutional/industrial/commercial uses)

STORAGE AND DISPOSAL

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

Pesticide Storage:

Open dumping is prohibited. Store in original container in areas inaccessible to children.

Pesticide Disposal:

Pesticide wastes are acutely hazardous. 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 is five gallons or less)

Container Disposal:

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying.

(Plastic Containers:) Triple rinse as follows: Fill container $\frac{1}{4}$ full with water and reclose the container. Agitate vigorously, and dispose of rinsate consistent with pesticide disposal instructions. Repeat two more times. Then offer for recycling if available or puncture and dispose in sanitary landfill or by other procedures approved by state and local authorities. Follow pesticide disposal instructions for rinsate. If not triple rinsed, these containers are acute hazardous wastes and must be disposed in accordance with local, state, and federal regulations.

(Metal Containers:) Triple rinse as follows: Fill container $\frac{1}{4}$ full with water and reclose the container. Agitate vigorously, and dispose of rinsate consistent with pesticide disposal instructions. Repeat two more times. Then offer for recycling if available or puncture and dispose in sanitary landfill or by other procedures approved by state and local authorities. Follow pesticide disposal instructions for rinsate. If not triple rinsed, these containers are acute hazardous wastes and must be disposed in accordance with local, state, and federal regulations. DO NOT cut or weld metal containers.

(Container is over five gallons)

Container Disposal:

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying.

Triple rinse as follows: Fill container $\frac{1}{4}$ full with water and reclose the container. 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. Follow Pesticide Disposal instructions for rinsate disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning. If not available, puncture and dispose in sanitary landfill. If not triple rinsed, these containers are acute hazardous wastes and must be disposed in accordance with local, state, and federal regulations. DO NOT cut or weld metal containers.

(Note to reviewer: For Refillable Containers – all sizes – No Reuse Rinsate Statement for Public Health Use products. Chapter 13, Table 6 of the Label Review Manual states that for “All products in containers that could be burned,” the registrant has the option to “Remain silent on burning;” therefore, no incineration language is provided for plastic containers.)

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Pesticide Storage:

OPEN DUMPING IS PROHIBITED. STORE IN ORIGINAL CONTAINER IN AREAS INACCESSIBLE TO CHILDREN.

PESTICIDE DISPOSAL:

Pesticide wastes are acutely hazardous. 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 Handling:

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before refilling is the responsibility of the refiller. Cleaning the container before final disposal is the responsibility of the person disposing of the container.

(Plastic or Metal Containers:) To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously, and dispose of rinsate consistent with pesticide disposal instructions. Repeat this rinsing procedure two more times. Then offer for recycling or reconditioning. If not available, puncture and dispose in sanitary landfill. If not triple rinsed, these containers are acute hazardous wastes and must be disposed in accordance with local, state, and federal regulations.

(For metal containers only: DO NOT cut or weld metal containers.)