Shaugnnessy No.: 069149

Date out of EAB: 11 SEP 1984

#331 A

To: John Lee
Product Manager #31
Registration Division (TS-767)

From: Samuel M. Creeger, Chief
Environmental Chemistry Review Section 1
Exposure Assessment Branch
Hazard Evaluation Division (TS-769c)

Attached, please find the EAB review of:

Reg./File No.: 47371-44

Chemical: didecyl dimethyl ammonium chloride

Type Product: Microbiocide

Product Name: HS 420 Water Treatment Microbiocide

Company Name: H&S Chemicals Division

Submission Purpose: new use paper mills

ZBB Code: ?

Action Code: 305

Date In: 7/31/84

EAB No.: 4479

Date Completed: 10 Sept. 1984

TAIS (Level II)	Days
64	0.5

Deferrals To:

_____ Ecological Effects Branch

_____ Residue Chemistry Branch

_____ Toxicology Branch

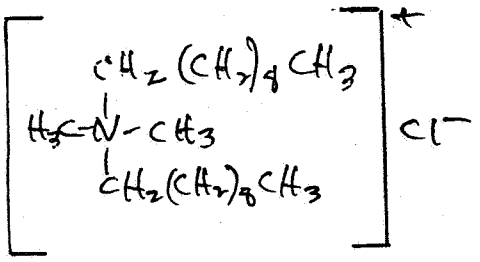
1.0 INTRODUCTION

Chemical Name and Type of Pesticide:

didecyl dimethyl ammonium chloride, 50% ai.

Trade Name: HS-420 Water Treatment Microbiocide

Chemical Structures:



H&S Chemicals is requesting amendments to its HL-420 label (see attached Application for Pesticide Amendment). Attachment 1 is the current label; attachment 2 is the proposed label. The label prohibits use in marine and/or estuarine oil fields. Direct discharge into lakes, streams, or ponds must be in accordance with NPDES permit.

2.0 DIRECTIONS FOR USE

See attachment 1 (current label) and attachment 2 (proposed label).

3.0 DISCUSSION OF DATA

No new data was submitted.

4.0 RECOMMENDATION

4.1 EAB does not find the environment fate data we have on this chemical supports the proposed label amendments.

The only data we have on file for this chemical is: The Biodegradability of Low Concentrations of Certain Quarternary Ammonium Antimicrobials by Bacteria (review of 26 July 1979). The disappearance of the chemical as a result of degradation was questioned, since adsorption to microbes, algae, and debris is known to occur and may have been an important factor. Radioactive labeling was recommended.

4.2 The data requirements for a product used in recirculating water cooling towers and oil field operations depend upon whether there is Direct Discharge, Indirect Discharge, or No Discharge.

4.3 Direct discharge means "the release, treatment, or application of a pesticide product directly to water at sites within or directly connected to bodies of water to which wild animals, birds, fish, and similar organisms have free access." The requirements for this type of discharge are:

Hydrolysis
Photodegradation-water
Aerobic aquatic metabolism
Anaerobic aquatic metabolism
Leaching (Adsorption/desorption)
Water field dissipation
Fish accumulation
Aquatic nontarget accumulation

4.4 Indirect Discharge means "release, treatment, or application of a pesticide product to water at sites not directly connected to bodies of water to which wild animals, birds, fish, and similar organisms have free access."

The data requirement for this type of discharge is a hydrolysis study only.

4.5 No Discharge - A hydrolysis study is still required.

4.6 If direct discharge of HS-420 residues occurs (in accordance with NPDES permit) then the data required are those in Section 4.3.

Herbert L. Manning

Herbert L. Manning, Ph.D.
Microbiologist
EAB/HED

Form approved. OMB [illegible]-0483. Approval expires 7-31-84

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDE PROGRAMS (TS-767)
WASHINGTON, D.C. 20460

APPLICATION FOR PESTICIDE:

☐ REGISTRATION
☒ AMENDMENT A

Please read instructions on reverse before completing

SECTION I

1. COMPANY/PRODUCT NO.	2. DATE	3. PRODUCT MANAGER	4. PROPOSED CLASSIFICATION
47371-44	July 19, 1984	John Lee, PM-31	☒ GENERAL ☐ RESTRICTED

5. NAME AND ADDRESS OF APPLICANT *(Include ZIP Code)*

H&S Chemicals Division
970 East Tipton Street
Huntington, IN 46750

☐ CHECK IF THIS IS A NEW ADDRESS

6. PRODUCT NAME

HS-420 Water Treatment Microbicide

SECTION II

1. SUBJECT OF AMENDMENT

☐ RESUBMISSION IN RESPONSE TO AGENCY LETTER DATED _____

☐ FINAL PRINTED LABEL IN RESPONSE TO AGENCY LETTER DATED _____

☒ OTHER *(explain below)* Amendment via: 1. Addition of papermill algaecide claims on labeling

2. Additional brand name "HS-420"

3. Additional brand name "HS-420 Paper Mill Algaecide"

SECTION III

1. WILL THIS PRODUCT BE PACKAGED IN:

CHILD-RESISTANT PACKAGING ☐ YES ☐ NO

UNIT PACKAGING ☐ YES ☐ NO

If YES; unit pkg. wt. _____ No. per container _____

WATER-SOLUBLE PACKAGING ☐ YES ☐ NO

If YES, pkg. wt. _____ No. per container _____

2. TYPE OF CONTAINER

☐ METAL
☐ PLASTIC
☐ GLASS
☐ PAPER
☐ OTHER *(Specify)*

3. LOCATION OF NET CONTENTS
☐ LABEL ☐ CONTAINER

4. SIZE(S) OF RETAIL CONTAINER

5. LOCATION OF LABEL DIRECTIONS
☐ ON LABEL
☐ ON MATERIAL ACCOMPANYING PRODUCT

6. MANNER IN WHICH LABEL IS AFFIXED TO PRODUCT
☐ LITHOGRAPH ☐ OTHER *(Specify)*
☐ PAPER GLUED
☐ STENCILED

SECTION IV

1. CONTACT POINT *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application).*

NAME: Richard D. Sheets

TITLE: Nat'l. Distributor Sales Mgr.

TELEPHONE NO. *(Include Area Code)*: 219/356-8100

2. SIGNATURE

3. TITLE: Nat'l. Dist. Sales Mgr.

4. TYPED NAME: Richard D. Sheets

5. DATE SIGNED: July 19, 1984

6. DATE APPLICATION RECEIVED *(Stamped)*

EPA Form 8570-1 (Rev. 5-81) PREVIOUS EDITION IS OBSOLETE.

*U.S. GOVERNMENT PRINTING OFFICE: 1984 - 431-398/7094

Attachment 1

Huntington T.M. — **H&S Chemicals Division**

ACCEPTED
SEP 20 1982
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 47371-44

HL-420
WATER TREATMENT MICROBICIDE

Water Treatment Microbicide for Building and Industrial Cooling Towels and Oil Field Water Flood of Salt Water Disposal Systems

HL-420 WATER TREATMENT MICROBICIDE will control algae and bacterial slimes found in recirculating cooling tower waters. HL-420 WATER TREATMENT MICROBICIDE helps clean and loosen slime debris from cooling system surfaces. When used in slug doses, no other microbicide is required.

HL-420 WATER TREATMENT MICROBICIDE is economical to use because it is concentrated. It should be handled with care.

Directions for Use
GENERAL CLASSIFICATION

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

To control algae and bacterial slimes, use HL-420 as directed. For best results, slug feed. The frequency of addition of microbicide needed depends on many factors. To optimize your use of HL-420, follow this procedure

Recirculating Cooling Towers

1 Initially use 6 fluid ounces per 1000 gallons of water to be treated (20 ppm active quaternary). Should the above dosage not give satisfactory results use 9 fluid ounces per 1000 gallons of water. Repeat the initial dose every seven days or increase the frequency if needed.

2 When the above treatment level is successful, use 2 to 3 fluid ounces per 1000 gallons of water to maximize efficiency. Repeat weekly as needed. Should slime develop again, go back to initial dosage.

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 HL-420 in 1 or 2 gallons of water, then add to the tower. Should tower be heavily fouled a precleaning is required. Oil Field Water Flood or Salt Water Disposal Systems (Do not apply in Marine and Estuarine Oil Fields).

1 For the control of slime forming and sulfate reducing bacteria in oilfield water flood or salt water disposal systems, add 5-10 ppm (active) HL-420 (1½-3 gallons per 3000 barrels of water) continuously. Levels for effective control will vary depending on conditions at the site.

2. For intermitten use, dose at a rate of 5-20 ppm (active) HL-420 (1½-6 gallons per 3000 barrels of water) for 3-8 hours per day, one to four times a week as needed to maintain control.

Add HL-420 directly from the drum with the proper type of metering equipment.

ACTIVE INGREDIENTS:	50.0%
Didecyl Dimethyl Ammonium Chloride	50.0%
INERT INGREDIENTS:	100.0%
Total	

DANGER: KEEP OUT OF REACH OF CHILDREN
ONLY FOR SALE TO, USE, AND STORAGE BY SERVICE PERSONS.

STATEMENT OF PRACTICAL TREATMENT

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. For eyes, call a physician. If swallowed, drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Call a physician immediately.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression, and convulsion may be needed.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Corrosive. Causes severe eye and skin damage. Do not get in eyes or on skin. Wash contaminated clothing before reuse. Wear goggles or face shield and rubber gloves when handling the concentrate. Harmful or fatal if swallowed. Avoid contamination of food.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not apply in marine and/or estuarine oil fields. Do not discharge into lakes, streams, ponds or public waters unless in accordance with an NPDES permit. For guidance, contact your Regional Office of the Environment Protection Agency.

PHYSICAL AND CHEMICAL HAZARDS

HL-420 is a cationic germicide. Do not mix with soap or anionic materials. Do not use or store near heat or open flame.

JUL 30 1982

STORAGE AND DISPOSAL

This product must be kept under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its proper use. Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

Registration Division (TS-767)

PESTICIDE DISPOSAL

Pesticide, spray mixture, or rinsate that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticides or buried in a safe place away from water supplies.

CONTAINER DISPOSAL

Triple rinse (or equivalent) and dispose in an incinerator or landfill approved for pesticide containers, or bury in a safe place. Consult federal, state, or local authorities for approved alternative procedures such as limited open burning.

EPA Reg. No 47371-44 EPA Est No 47371-IN-01 HS-I

Attachment –

HPS C... als Division

HS-420

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2. For intermitten use, dose at a rate of 5-20 ppm (active) HS-420 (1½-6 gallons per 3000 barrels of water) for 3-8 hours per day, one to four times a week as needed to maintain control.

Add HS-420 directly from the drum with the proper type of metering equipment.

added { **PAPER MILLS:** Dosage will vary from 4.7 to 7.0 fluid ounces of HS-420 per ton of finished paper depending on the type of stock, complexity of the system, quality of raw water, and type and degree of contamination.

FEEDING: HS-420 may be drip fed continuously from the drum or led by suitable chemical pumps such as adjustable proportioning types; variable speed, positive displacement type; or by the reciprocating type. This product should be fed as early as possible in the system at such points including the hydropulper, machine chest or broke system.

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HS-420 is cationic. Do not mix with soap or anionic materials. Do not use or store near heat or open flame.

STORAGE AND DISPOSAL

This product must be kept under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its proper use. Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

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 DISPOSAL

PLASTIC CONTAINERS

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

FIBER DRUMS WITH LINERS

Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by State and local authorities. If drum is contaminated and cannot be reused, dispose of in the same manner.

METAL CONTAINERS

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.