

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER. KEEP OUT OF REACH OF CHILDREN.** Corrosive. Causes severe eye damage and skin irritation. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield and rubber gloves when handling. Harmful if swallowed. Avoid contamination of food.

**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. Remove and wash contaminated clothing before reuse.

If swallowed, drink promptly a large quantity of milk, egg whites, gelatin solution or, if these are not available, drink large quantities of water. Avoid alcohol. Call a physician immediately.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

**PHYSICAL OR CHEMICAL HAZARDS**

**DO NOT USE, SPILL, POUR OR STORE NEAR OPEN FLAME.**

**ENVIRONMENTAL HAZARDS:** This pesticide is toxic to fish. Do not apply (or use) in estuarine oil fields where drilling fluids (muds) are discharged in the surface water. Do not discharge treated effluent into lakes, streams, ponds or public waters unless in accordance with NPDES Permit. For guidelines contact your regional office of the Environmental Protection Agency.

**STORAGE AND DISPOSAL**

**PROHIBITIONS:** DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE AND DISPOSAL. OPEN DUMPING IS PROHIBITED.

**PESTICIDE DISPOSAL:** Pesticide, spray mixture, or rinse water that cannot be used according to label instructions must be disposed of according to Federal or approved State procedures under Subtitle C of the Resource Conservation and Recovery Act.

**CONTAINER DISPOSAL:** Metal Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other approved State and local procedures.

**GENERAL:** CONSULT FEDERAL, STATE, OR LOCAL DISPOSAL AUTHORITIES FOR APPROVED ALTERNATIVE PROCEDURES.

9.7 lbs. per gallon

**VININGS CHEMICAL COMPANY**

ATLANTA, GEORGIA 30339

**VININGS**  
*Chemical Company*

ATLANTA, GEORGIA

**AMA-24**

(Antimicrobial Agent)

(FOR INDUSTRIAL USE ONLY)

ACTIVE INGREDIENT:

Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione

INERT INGREDIENTS: .....

KEEP OUT OF REACH OF CHILDREN

**DANGER**

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONS

EPA REGISTRATION NO. 9386-3 EPA ESTABLISHMENT NO. 1289

Manufactured By

**VININGS CHEMICAL COMPANY**

MARIETTA, GEORGIA 30067

*Company*

LANTA, GEORGIA

**A-24**

ACCEPTED  
JUL 22 1983  
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 9386-3

TRIAL USE ONLY)

2H-1,3,5-thiadiazine-2-thione ..... 24%  
..... 76%  
Total 100%

OF REACH OF CHILDREN

**DANGER**

TIONAL PRECAUTIONARY STATEMENTS

66-3 EPA ESTABLISHMENT NO. 9386-GA-1

Manufactured By  
**EMICAL COMPANY**  
A, GEORGIA 30066

**DIRECTIONS FOR USE:**

**IT IS A VIOLATION OF FEDERAL LAW TO USE THE PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.**

**PAPER MILL SLIME CONTROL: FOR THE CONTROL OF SLIME-FORMING AND/OR SPOILAGE BACTERIA:** AMA-24 is added at a point in the system (raw stock chest, beater and/or refiner chest or machine chest - wirepit) where it will be uniformly mixed. Application may be continuous or intermittent for a certain number of hours/day or per shift, depending upon system characteristics. Add 5 to 20 fluid ounces of AMA-24 per ton of paper produced.

**INTERMITTENT FEED METHOD:** Apply 12 to 20 fluid ounces of AMA-24 per ton (dry basis) of pulp or paper for 2 hours every 8 hours. Badly fouled process systems must be cleaned before initial treatment.

**CONTINUOUS FEED METHOD:** Apply 5 to 15 fluid ounces of AMA-24 per ton (dry basis) of pulp or paper produced on a continuous basis. Badly fouled process systems must be cleaned before initial treatment.

**RECIRCULATING COOLING WATER SYSTEMS: FOR THE CONTROL OF ALGAE, FUNGI, AND SLIME-FORMING BACTERIA:** Dosages for industrial recirculating cooling water systems will depend on the conditions of the system prior to treatment initiation. Systems which are heavily contaminated should be cleaned first. Apply AMA-24 to the cleaned system or when growth is first noticed according to the following schedule.

**INITIAL DOSAGE:** Apply 3.25-6.5 fluid ounces (30-60 ppm) of AMA-24 per each 1000 gallons of water in the system. This dose may be as a continuous treatment or applied once, twice, or three times weekly or as required to control the growth of slime-forming organisms.

**SUBSEQUENT DOSAGE:** When microbial control is evident add 0.5-3.25 fluid ounces (5-30 ppm) of AMA-24 per 1000 gallons of water in the system as a continuous treatment daily or every 3 days or as required to maintain control.

**OILFIELD DRILLING MUDS AND WORKOVER OR COMPLETION FLUIDS: FOR CONTROL OF SLIME-FORMING AND/OR SPOILAGE BACTERIA:** Determine the total volume of the circulating system. Calculate the number of gallons of Vinings AMA-24 needed to produce a concentration of 2,080 ppm (0.73 lb/bbl) of Vinings AMA-24 in the drilling mud circulating system. For example, 75 gallons of Vinings AMA-24 per 1000 barrels of drilling fluid will produce the proper concentration.

For best results add Vinings AMA-24 in a thin stream to the mud pit while the drilling fluid is circulating.

As the total volume increases, due to greater well depth, add additional Vinings AMA-24 to maintain the proper concentration. Because of the wide variation in drilling mud composition and bacterial contamination, greater or lesser amounts of the AMA-24 may be prescribed.

**OILFIELD WATER TREATMENT AND WATER FLOODS: FOR CONTROL OF SLIME-FORMING AND/OR SPOILAGE BACTERIA:** Calculate the total volume of water to be treated. Using this volume calculate the number of gallons of Vinings AMA-24 needed to produce concentration of approximately 2500 ppm Vinings AMA-24. For example, 2.1 gallons of Vinings AMA-24 per each 1000 gallons of total volume will produce this dilution.

350 ppm Vinings AMA-24, added each week, is recommended to maintain bacterial control. This may be accomplished by adding 0.30 gallons of Vinings AMA-24 to each 1000 gallons of total volume. Because of the wide variation in waters found in the oil field, greater or lesser amounts of AMA-24 may be required in a particular location.

**FOR THE PRESERVATION OF CLAY SLURRIES, ADHESIVES, COATINGS AND HIGH VISCOSITY SUSPENSIONS:** For preservation of slurries and high viscosity suspensions, AMA-24 should be added at a point in the processing system where there will be sufficient time and agitation for good mixing and dispersion. Add AMA-24 at use levels of 0.04-0.11%, by weight, based on the total formulation in slurries of starch, clay, calcium carbonate or titanium dioxide, paper coatings, high viscosity suspensions (e.g. polymers; silica-polymer combinations); polyvinyl alcohol/polyvinyl acetate based adhesives, starch based adhesives, dextrin based adhesives. The exact amount of material to be added for the preservation of any given formulation will depend on the components and local storage time and conditions. Dosage rates should be determined by actual tests.

# VININGS

AMA-24  
(ANTIMICROBIAL AGENT)

## TECHNICAL DATA

AMA-24 is an effective, low cost, liquid antimicrobial agent for use in a variety of systems.

### COMPOSITION :

Active ingredient : Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione	24%
Inert ingredients :	76%
	TOTAL 100%

### TYPICAL PHYSICAL PROPERTIES :

Physical form :	liquid	Color :	Straw
Specific Gravity :	1.161 @ 25° C	Solubility :	Complete at use concentration
Flash Point :	over 200° F(TOC)	Density :	9.7 lbs/gal
pH :	13.4		

### EFFICACY :

AMA-24 has been found to be an effective agent against many bacteria and fungi.

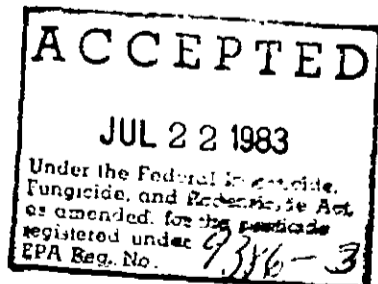
Following is a tabulation showing the ppm of AMA-24 required to give complete inhibition at 96 hours :

<u>MICROORGANISM</u>	<u>PPM</u>	<u>MICROORGANISM</u>	<u>PPM</u>
1. <u>Flavobacterium capsulatum</u>	167	5. <u>Aspergillus niger</u>	333
2. <u>Enterobacter aerogenes</u>	1000	6. <u>Penicillium expansum</u>	500
3. <u>Bacillus subtilis</u>	333	7. <u>Fusarium oxysporum</u>	1000
4. <u>Pseudomonas fluorescens</u>	1000		

<u>COMBINATION OF BACTERIA</u>	<u>PPM</u>	<u>COMBINATION OF FUNGI</u>	<u>PPM</u>
1,2, and 4 (Bacterial Combination)	1000	5,6, and 7 (Fungal Combination)	500

### SULFATE-REDUCING BACTERIA

Desulfovibrio desulfuricans 120 - 130



DIRECTIONS FOR USE :

PAPER MILL SLIME CONTROL : FOR THE CONTROL OF SLIME-FORMING AND/OR SPOILAGE BACTERIA : AMA-24 is added at a point in the system (raw stock chest; beater and/or refiner chest or machine chest - wirepit) where it will be uniformly mixed. Application may be continuous or intermittent for a certain number of hours/day or per shift, depending upon system characteristics. Add 5 to 20 fluid ounces of AMA-24 per ton of paper produced.

INTERMITTENT FEED METHOD : Apply 12 to 20 fluid ounces of AMA-24 per ton(dry basis) of pulp or paper for 2 hours every 8 hours. Badly fouled process systems must be cleaned before initial treatment.

CONTINUOUS FEED METHOD : Apply 5 to 15 fluid ounces of AMA-24 per ton(dry basis) of pulp or paper produced on a continuous basis. Badly fouled process systems must be cleaned before initial treatment.

Consult your Vinings representative for technical advice concerning certain site problems.

RECIRCULATING COOLING WATER SYSTEMS : FOR THE CONTROL OF ALGAE, FUNGI, AND SLIME-FORMING BACTERIA : Dosages for industrial recirculating cooling water systems will depend on the conditions of the system prior to treatment initiation. Systems which are heavily contaminated should be cleaned first. Apply AMA-24 to the cleaned system or when growth is first noticed according to the following schedule.

INITIAL DOSAGE : Apply 3.25-6.5 fluid ounces (30-60 ppm) of AMA-24 per each 1000 gallons of water in the system. This dose may be as a continuous treatment or applied once, twice, or three times weekly or as required to control the growth of slime-forming organisms.

SUBSEQUENT DOSAGE : When microbial control is evident add 0.5-3.25 fluid ounces (5-30 ppm) of AMA-24 per 1000 gallons of water in the system as a continuous treatment daily or every 3 days or as required to maintain control.

OILFIELD DRILLING MUDS AND WORKOVER OR COMPLETION FLUIDS : FOR CONTROL OF SLIME-FORMING AND/OR SPOILAGE BACTERIA : Determine the total volume of the circulating system. Calculate the number of gallons of Vinings AMA-24 needed to produce a concentration of 2,080 ppm (0.73 lb/bbl) of Vinings AMA-24 in the drilling mud circulating system. For example, 75 gallons of Vinings AMA-24 per 1000 barrels of drilling fluid will produce the proper concentration.

For best results add Vinings AMA-24 in a thin stream to the mud pit while the drilling fluid is circulating.

As the total volume increases, due to greater well depth, add additional Vinings AMA-24 to maintain the proper concentration. Because of the wide variation in drilling mud composition and bacterial contamination, greater or lesser amounts of the AMA-24 may be prescribed.

OILFIELD WATER TREATMENT AND WATER FLOODS : FOR CONTROL OF SLIME-FORMING AND/OR SPOILAGE BACTERIA : Calculate the total volume of water to be treated. Using this volume, calculate the number of gallons of Vinings AMA-24 needed to produce concentration of approximately 2500 ppm Vinings AMA-24. For example, 2.1 gallons of Vinings AMA-24 per each 1000 gallons of total volume will produce this dilution.

Add Vinings AMA-24 as a slug treatment or intermittently.

350 ppm Vinings AMA-24, added each week, is recommended to maintain bacterial control. This may be accomplished by adding 0.30 gallons of Vinings AMA-24 to each 1000 gallons of total volume. Because of the wide variation in waters found in the oil field, greater or lesser amounts of AMA-24 may be required in a particular location.



FOR THE PRESERVATION OF CLAY SLURRIES, ADHESIVES, COATINGS AND HIGH VISCOSITY SUSPENSIONS : For preservation of slurries and high viscosity suspensions, AMA-24 should be added at a point in the processing system where there will be sufficient time and agitation for good mixing and dispersion. Add AMA-24 at use levels of 0.04-0.11%, by weight, based on the total formulation in slurries of starch, clay, calcium carbonate or titanium dioxide; paper coatings; high viscosity suspensions (e.g. polymers; silica-polymer combinations); polyvinyl alcohol/polyvinyl acetate based adhesives; starch based adhesives; dextrin based adhesives. The exact amount of material to be added for the preservation of any given formulation will depend on the components and local storage time and conditions. Doasge rates should be determined by actual tests.

TECHNICAL ASSISTANCE :

The service of our engineers is available at any time, upon request, to assist in solving problems pertaining to use of Vinings' products. Information concerning this service is available from your regular sales representative or may be obtained by writing to Vinings Chemical Company, Atlanta, Georgia 30339.

STORAGE AND DISPOSAL

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PESTICIDE DISPOSAL:

Pesticide, spray mixture, or rinse water that cannot be used according to label instructions must be disposed of according to Federal or approved State procedures under Subtitle C of the Resource Conservation and Recovery Act.

CONTAINER DISPOSAL:

Metal Containers:

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

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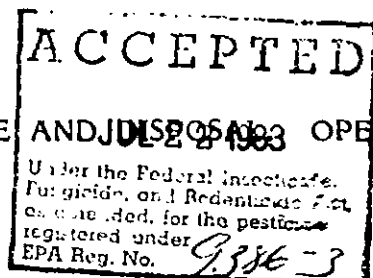
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AMA-24  
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Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

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**FOOD AND DRUG REGULATIONS :**

The ingredients in AMA-24 are cleared by the United States Food and Drug Administration for use in the manufacture of pulp and paper to be used for food packaging in accordance with 21CFR176.300.

**SHIPPING POINT :**

Marietta, Georgia

**PACKAGING :**

55 gallon drums  
350 gallon portabins  
Bulk

**WEIGHT PER GALLON**

9.7 pounds per gallon

VININGS CHEMICAL COMPANY  
2555 CUMBERLAND PARKWAY  
SUITE 200  
ATLANTA, GEORGIA  
30339

7/83